

PART

2

Hunger dimensions

In 2010–2012, about 870 million people – or one in eight of the people in the world – did not consume enough food to cover their minimum dietary energy requirements. Of these people, 852 million were in developing countries, making up 14.9 percent of the total population of these countries. While undernourishment remains stubbornly high in absolute terms, the prevalence of undernourishment has fallen by 36 percent against the 1990–1992 benchmark set by the Millennium Development Goals (MDGs). If current trends continue, developing countries as a group could be close to achieving the goal of halving the percentage of people suffering from chronic hunger by 2015.

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. To understand the complexity of the problem and identify measures for addressing it, its dimensions and manifestations, the underlying factors have to be assessed and measured.

Food insecurity arises in different contexts for different reasons. It can be driven by insufficient availability of or insufficient access to food. While it is often portrayed as an access problem, its relationship with poverty is not always straightforward. Its intensity usually varies with social and economic conditions, especially income levels and food prices, but it is also affected – often to a large extent – 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 even arise when a sufficient and balanced diet is available, but food safety and hygiene or access to health care are lacking. Whatever the causes of food insecurity, it usually takes a huge toll on labour productivity, and thus perpetuates a vicious circle where food insecurity causes low labour productivity, low incomes and thus further food insecurity. This is the “hunger trap”.

To capture the multifaceted character of food insecurity and facilitate its analysis, FAO has recently compiled a suite of indicators that supplements measurements of the number and prevalence of undernourishment. However, the indicators selected are not always ideal for describing food insecurity in all its facets. Indicator selection is also conditioned 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 and tracing how the various indicators relate to each other. The following sections outline some of the associations and regularities that emerge among different indicators. These are meant to signal areas for further investigation, and do not necessarily imply formal or causal relationships.

Key Resources

The State of Food Insecurity in the World (SOFI)

The State of Food Insecurity in the World raises awareness about global hunger issues, discusses underlying causes of hunger and malnutrition and monitors progress towards hunger reduction targets established at the 1996 World Food Summit and the Millennium Summit. The publication is targeted at a wide audience, including policy-makers, international organizations, academic institutions and the general public with a general interest in linkages between food security, and human and economic development.

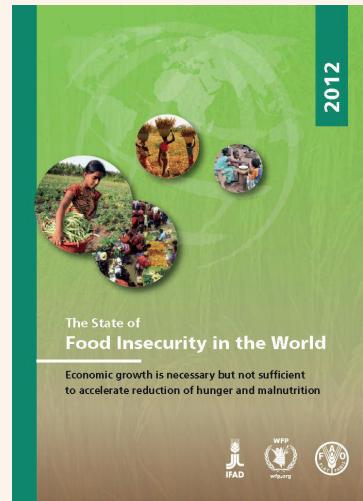
2012: Economic growth is necessary but not sufficient to accelerate reduction of hunger and malnutrition

2011: How does international price volatility affect domestic economies and food security?

2010: Addressing food insecurity in protracted crises

Publication cycle: Annual

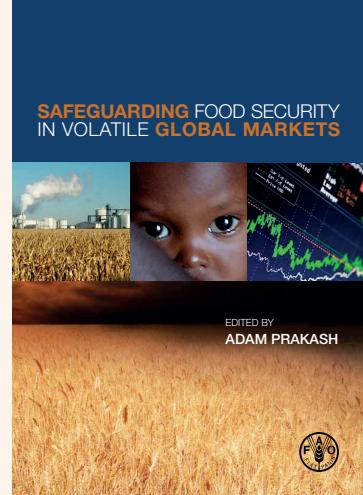
Webpage: www.fao.org/publications/sofi/en/



Safeguarding Food Security in Volatile Global Markets

Safeguarding Food Security in Volatile Global Markets is a four-part volume that gathers together the latest thinking on the issues and controversies surrounding price volatility in global food markets. Drawing from theory, empiricism and heuristic evidence, the book contributes to the debate on the causes, consequences, and challenges of food price volatility. Food security and vulnerability are placed at centre stage, especially in their demands on shaping innovative policy design.

Webpage: www.fao.org/economic/est/issues/volatility/vgm/en/



Number undernourished and their prevalence in the population

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. In brief, this indicator refers to the number and proportion of the population whose energy intake is likely to fall below minimum requirements. Figures presented in FAO's *The State of Food Insecurity in the World 2012* (SOFI) show that an estimated 870 million people, or 12.5 percent of the world's population, were undernourished in 2010–2012. Of these people, 852 million were reported to be citizens of developing countries.

The estimates for 2010–2012 were based on an improved methodology, which was also applied to re-estimate data from previous periods. Undernourishment remains disturbingly high in absolute terms, and progress in its reduction has slowed in the last few years. However, the decline from 1990 to 1992 appears greater than previously thought, meaning that the world is closer to achieving the MDG target. Progress has been faster in Asia and Latin America. Both regions, considered as a whole, seem to be on track for achieving the MDG target. Improvements have also been recorded in sub-Saharan Africa, albeit at a slower pace. However, estimates for countries such as Burundi, Haiti, Eritrea, Timor-Leste, the Comoros, Mozambique, the Sudan (former), Yemen and many others give cause for considerable concern.

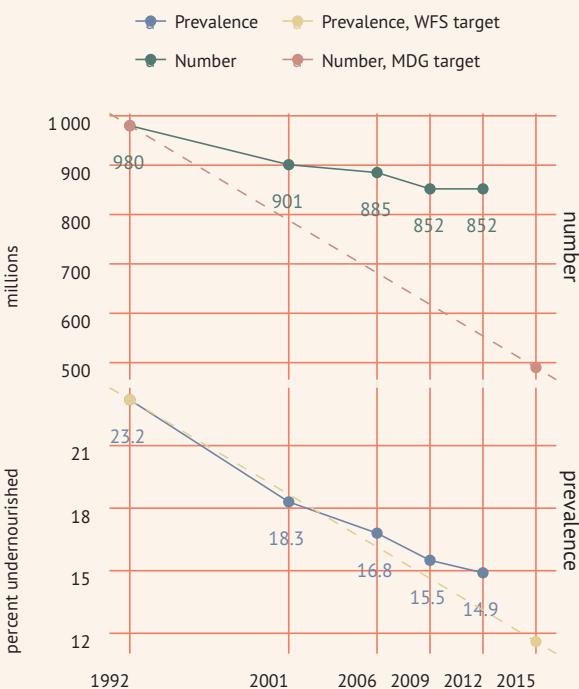
As part of FAO's new suite of indicators, additional figures are presented for the prevalence of food inadequacy, which indicates the risk that individuals will be living on a diet that prevents them from effectively discharging an economic activity requiring significant physical effort. Compared with 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.

In more than one country, the difference between the prevalence of undernourishment and the prevalence of food inadequacy seems significant, showing that a considerable share of the population is suffering from inadequate food intake, even though chronic undernourishment is not widespread. This is the case of countries that do not rank among the highest in terms of undernourishment, such as Bangladesh, India, the Dominican Republic, Ecuador, Swaziland and Kenya. Further analysis of this type of evidence may provide a basis for more targeted food policy interventions.

Further reading

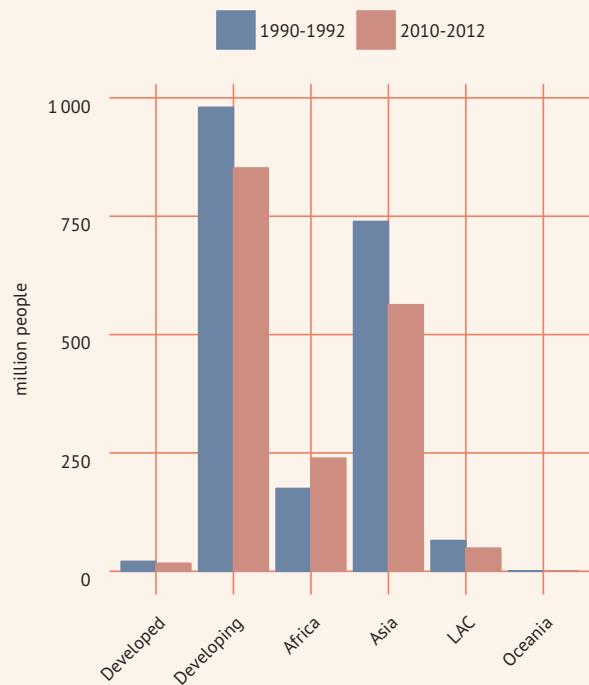
- FAO The State of Food Insecurity in the World 2012 - Economic Growth Is Necessary but Not Sufficient to Accelerate Reduction of Hunger and Malnutrition (www.fao.org/publications/sofi/en/)
- FAO Hunger Portal (www.fao.org/hunger)

CHART 24: Undernourishment in the developing world
(1990-1992 to 2010-2012)



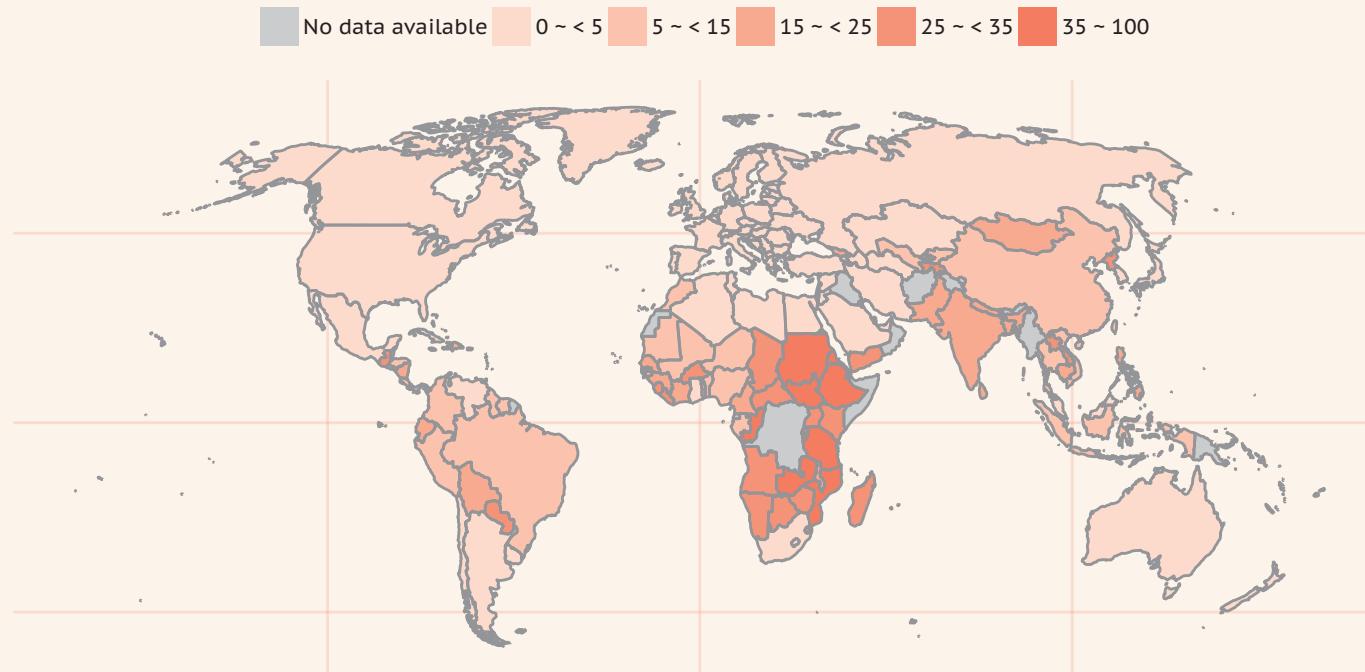
Source: FAO, Statistics Division.

CHART 25: Number of people undernourished
(1990-1992 and 2010-2012)



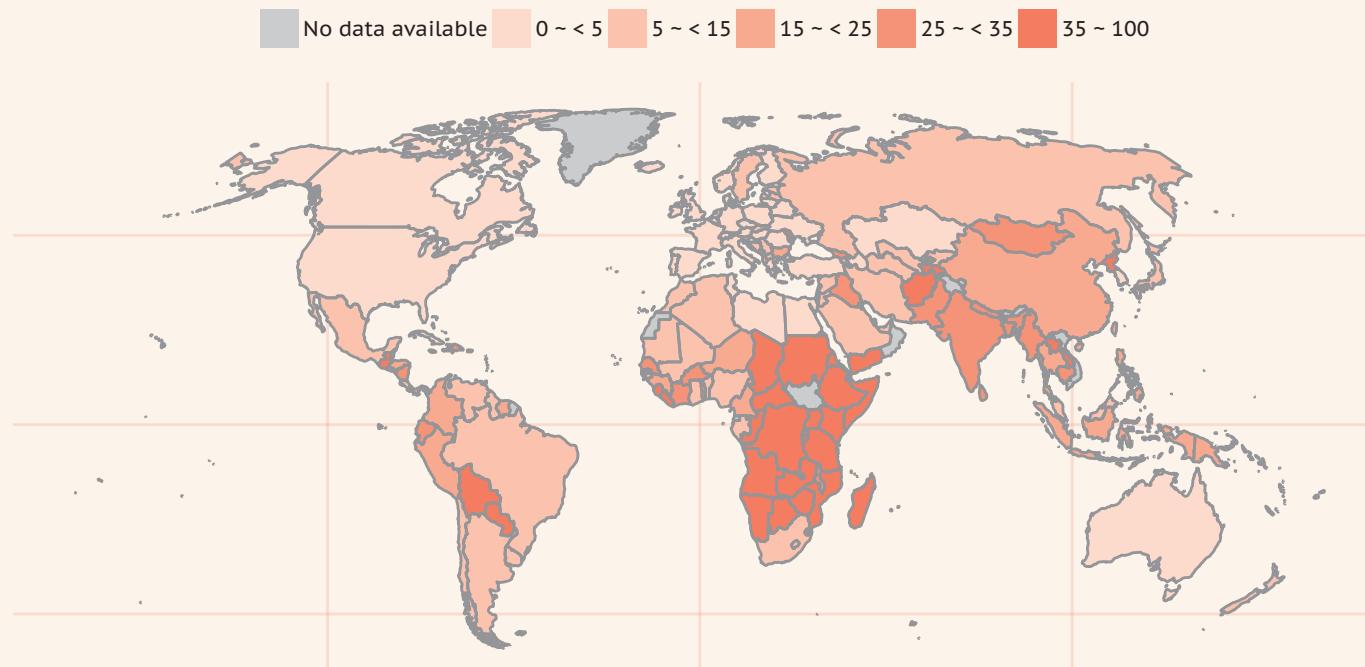
Source: FAO, Statistics Division.

MAP 16: Map of hunger (% prevalence of undernourishment, 2012)



Source: FAO, Statistics Division.

MAP 17: Prevalence of food inadequacy (percent, 2012)



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.

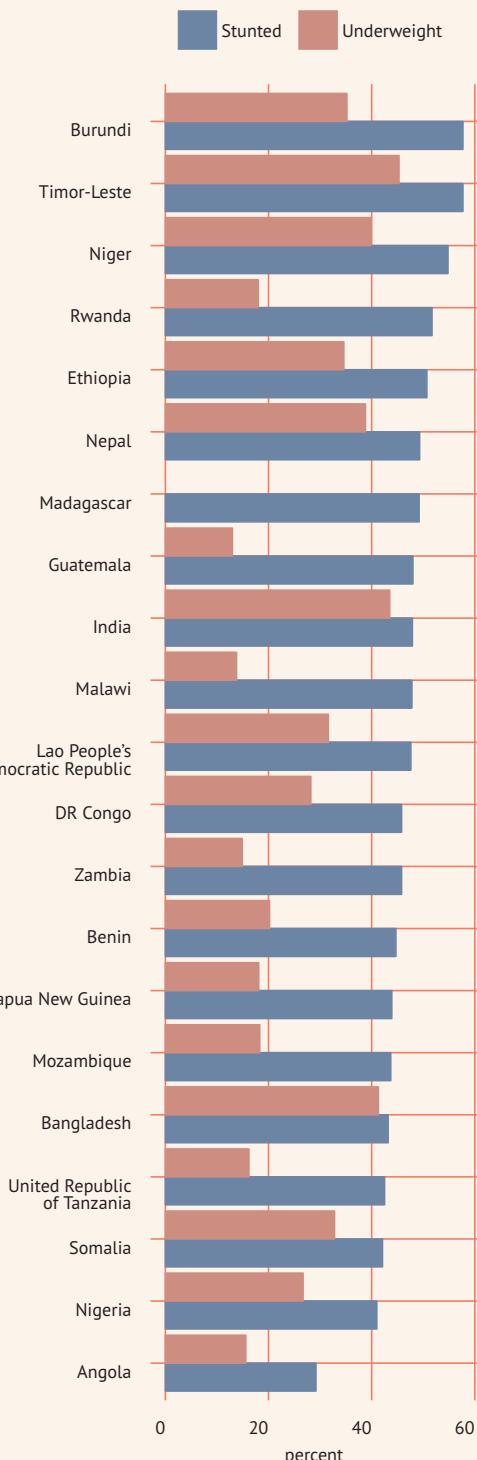
Between 2005 and 2011, one of four African countries reported a stunting rate of at least 40 percent, which is considered very high prevalence by the World Health Organization (WHO). Countries with high stunting rates are concentrated mainly in Middle and Southeastern Africa and the Horn of Africa, but pockets are also found in parts of Western Africa. Over the 2005–2011 period, stunting rates also exceeded 40 percent in South and South East Asia, with peaks in Timor-Leste, Nepal, India and Lao People's Democratic Republic. African countries show the highest rates of underweight prevalence. Between 2005 and 2011, 16 African countries showed underweight rates of at least 20 percent, with the highest levels recorded in the Horn of Africa.

Nutrition-related disorders are also prevalent in countries where the number of undernourished is relatively low. In Ghana, for instance, the prevalence of undernourishment was reported to be less than 5 percent in 2010–2012, but more than 28 percent of children under five years of age were reported to be stunted in 2005–2011. A similar picture emerges from the same indicators in Mali, where the prevalence of undernourishment was reported to be 8 percent, with 28 percent of children under five years of age found to be underweight. In Viet Nam, the prevalence of undernourishment was estimated to be 9 percent, while more than 20 percent of children under five years of age were reported to be underweight. Such differences in trends and levels of food security indicators may provide the basis for in-depth analyses and the design of specific policy interventions. In Ghana, for instance, policies may emphasize interventions that ensure utilization of safe and nutritious food, and hygienic conditions. At the same time, the high availability of food in the country, as shown by the average dietary energy supply adequacy (see the section on Food availability), suggests that interventions to increase food supply could gradually be de-emphasized.

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/)
- FAO Nutrition and Consumer Protection Division (www.fao.org/food/)
- UNICEF Nutrition (www.unicef.org/nutrition/)
- WHO Nutrition and disorders (www.who.int/topics/nutrition/en/)

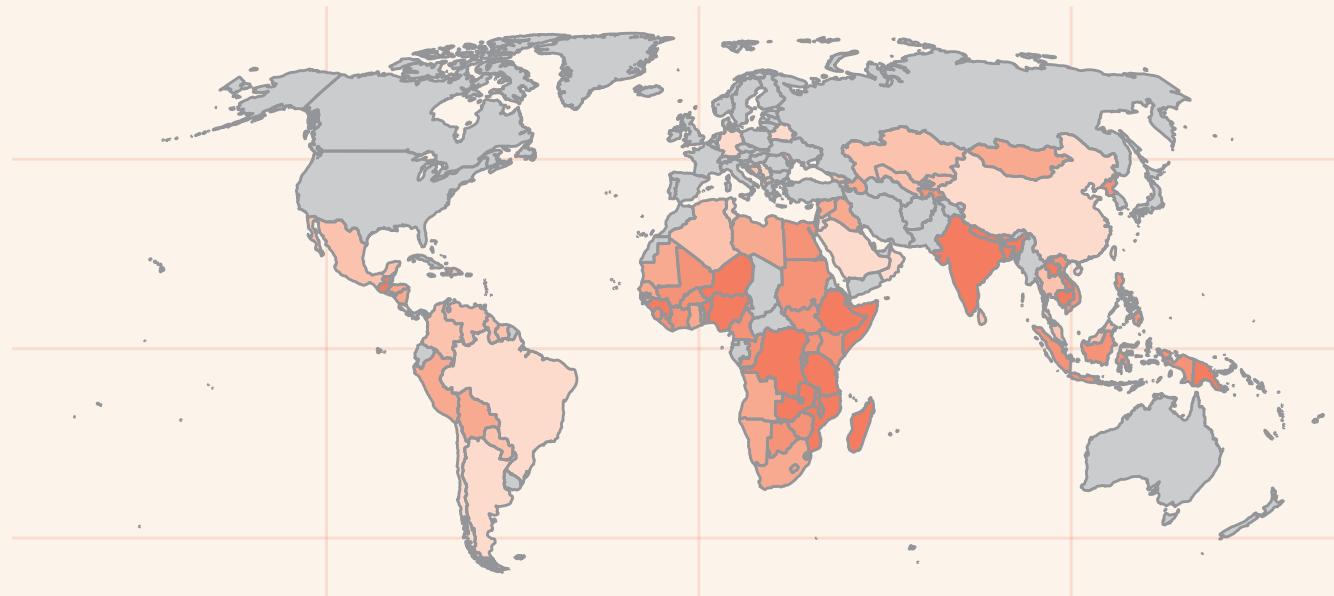
CHART 26: Percentage of children under 5 years of age who are stunted and underweight, countries with highest stunting rates (2005-2011*)



Source: FAO, Statistics Division.

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

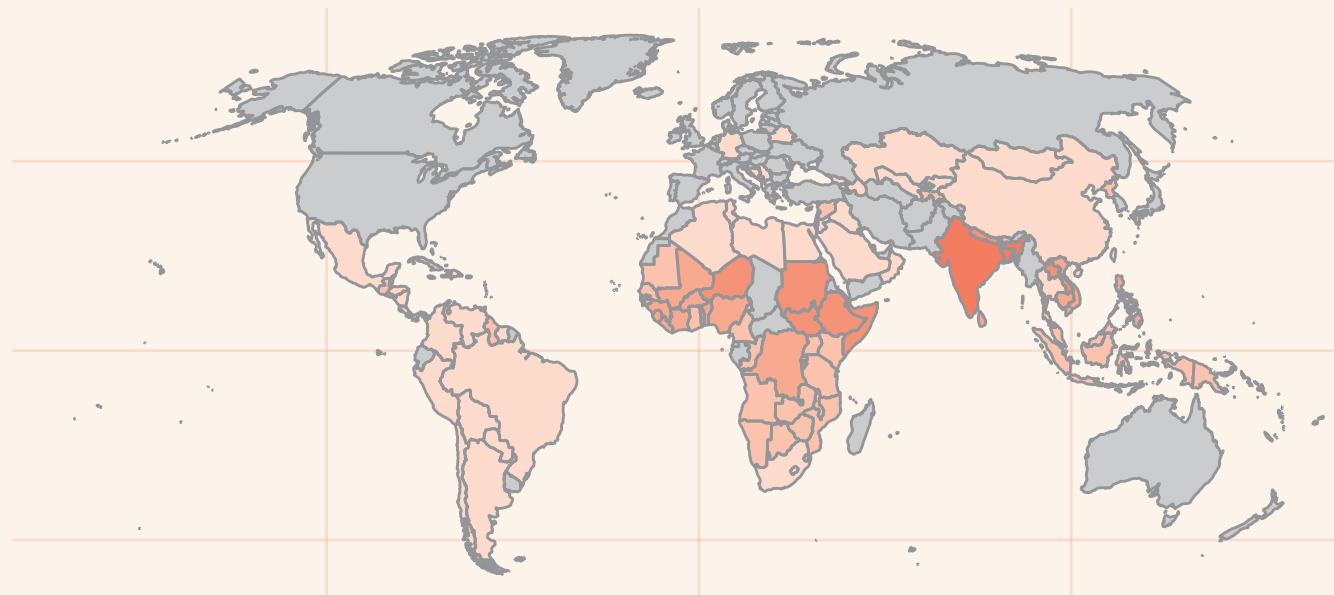
No data available 0 ~ < 10 10 ~ < 20 20 ~ < 30 30 ~ < 40 40 ~ 100



Source: FAO, Statistics Division. 

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

No data available 0 ~ < 10 10 ~ < 20 20 ~ < 30 30 ~ < 40 40 ~ 100



Source: FAO, Statistics Division. 

Poverty

Poverty is the 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. In 1990, the share of people living in absolute poverty was still 43 percent. Since then, poverty has fallen rapidly and significantly in China and other Asian countries, while many countries in sub-Saharan Africa and Southern Asia have shown less and slower progress. Overall, the MDG target of halving the number of people living in absolute poverty has already been achieved, and further progress can be expected by 2015.

Estimates of relative poverty, or inequality, generate a mixed picture. In several Asian countries, inequality – measured by the Gini coefficient – has been increasing since the early 1990s, reflecting growing disparities between rural and urban populations, fast industrialization, and increasing returns to more skilled labour. In contrast, inequality has declined in Africa because of faster economic growth, mainly over the last decade. Even countries in Latin America and the Caribbean, where inequality was significant some decades ago, have made considerable progress.

Similar to food security, poverty is a multidimensional phenomenon, and needs to be assessed through several indicators; as already mentioned, the relative and absolute dimensions of poverty need to be taken into account. Even more complex is the relationship between indicators of poverty on the one hand, and those of malnutrition and undernourishment on the other. The indicators presented here show that these two measures can frequently diverge.

In some countries, a large proportion of the population living on less than US\$2 per day is associated with a high prevalence of undernourishment, such as in Burundi, Ethiopia, Mozambique and Zambia. In other countries, however, a high proportion of population below the US\$2 per day poverty line is associated with a prevalence of food insecurity close to the regional average of 26 percent. This is the case of the Central African Republic, Madagascar, Rwanda, Liberia and Guinea. At the opposite extreme, there are countries – Nigeria for example – where a high level of poverty is associated with prevalence of undernourishment below 10 percent.

It is also worth noting that the data available for a number of important countries are not sufficiently complete to enable elaborate analyses about trends. For instance, in the Democratic Republic of the Congo and Eritrea, poverty rates are high but data on the prevalence of undernourishment are not available.

Further reading

- World Bank Poverty Reduction and Equity Group (www.worldbank.org/poverty)

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



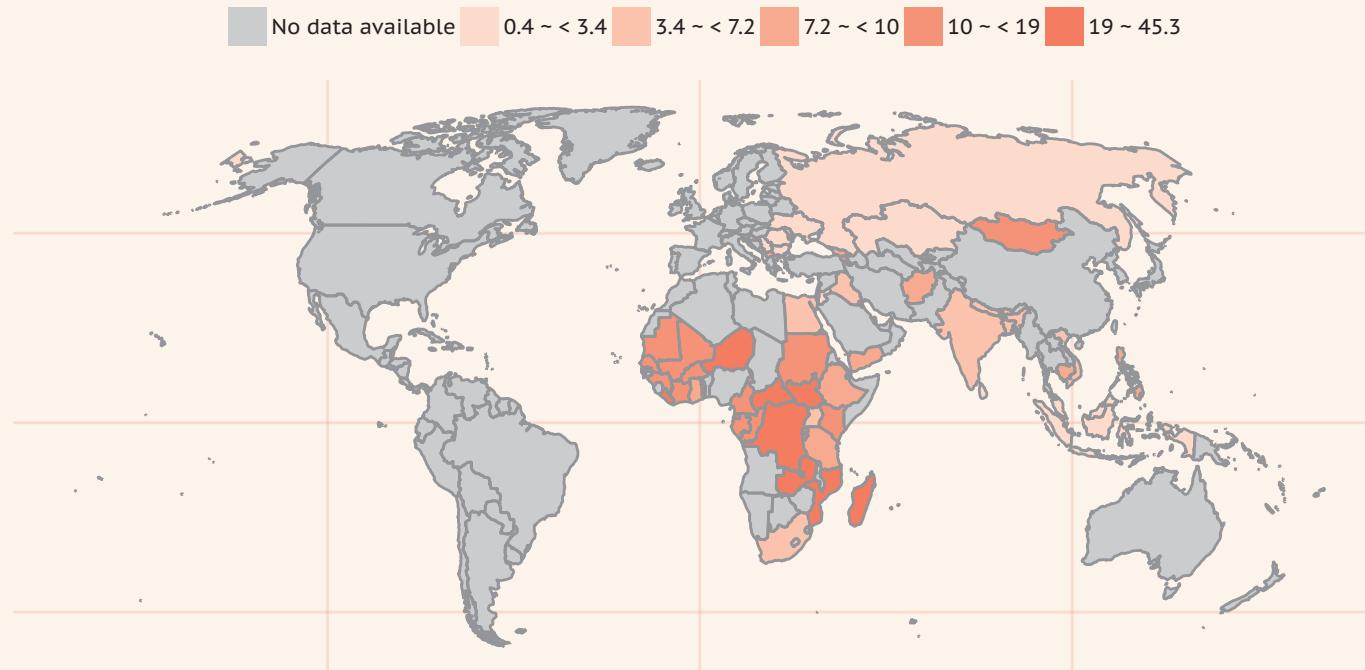
Source: World Bank (WDI).

CHART 28: Gini coefficient (1990-1992 and 2007-2009)



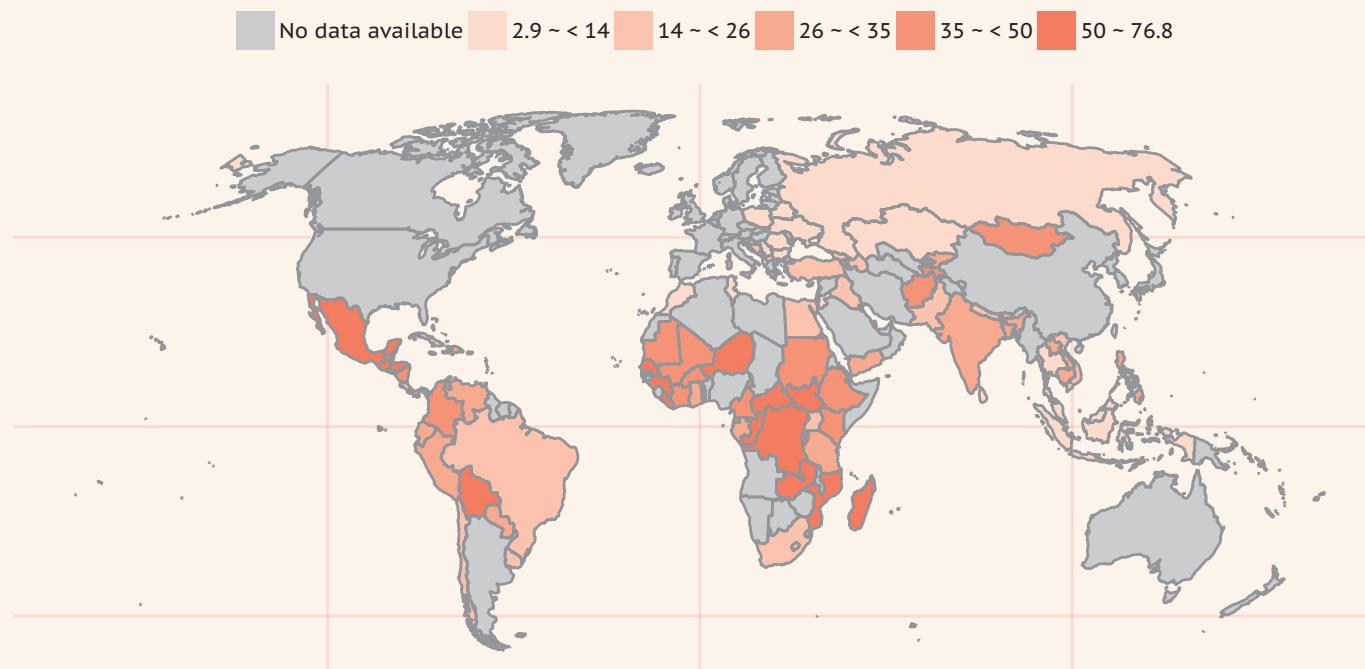
Source: World Bank (WDI).

MAP 20: Poverty gap at national poverty line (percent, 2005-2011*)



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

Availability is an important dimension of food security. Supplying enough food to the reference population is a necessary, but insufficient, condition for ensuring adequate access for individuals.

Over recent decades, trends in food production per capita have been generally positive across most regions. However, growth rates in Africa have been lower for the last 20 years, despite notable exceptions. On average, agricultural production in Africa has increased at slightly less than 1 percent per year, compared with about 2 percent in developing countries overall.

Insights into the availability dimension of food security can be gathered through a number of indicators. The average dietary energy supply adequacy, which expresses the dietary energy supply as a percentage of the average dietary energy requirement, has increased globally from 114 to 120 in the last 20 years. At the same time, the share of energy provided by cereals, roots and tubers has been gradually shrinking, reaching 51 percent in 2007–2009. The amount of available protein per person per day increased by 13 percent at the world level between 1990–1992 and 2007–2009. However, Africa still ranks low in this indicator compared with other regions. The share of livestock products in protein supply has also been growing globally, with developing countries making great progress.

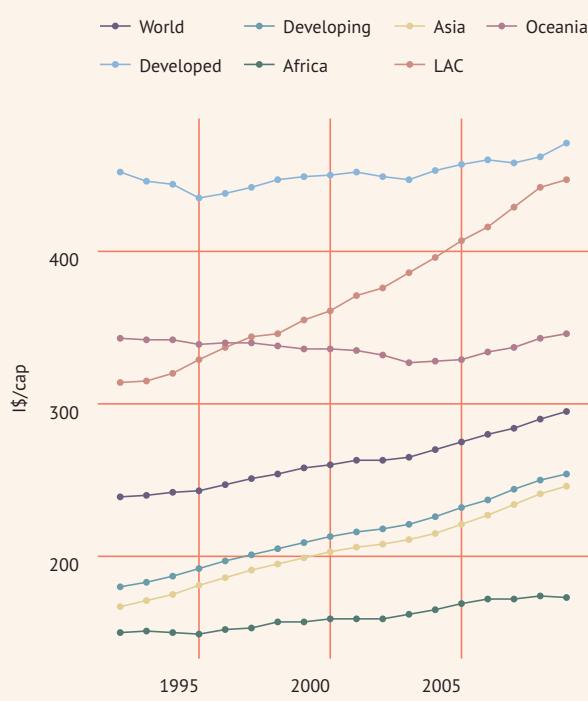
In most countries and regions, high food availability is associated with relatively low prevalence of undernourishment. However, outcome indicators show that high food availability does not always guarantee high food security. In Egypt, for instance, stunting affects 31 percent of children under five years of age, while dietary supply adequacy is 45 percent higher than the average requirement. Similar situations arise in Benin, Malawi, the Niger, Kazakhstan and Nicaragua, where supply adequacy varied from approximately 110 to 140, while average stunting between 2005 and 2010 was reported to range from 20 to 45 percent. These data may point to the presence of specific population groups suffering from acute undernourishment, despite abundant food supplies.

CHART 29: Average dietary supply adequacy (1990-1992 and 2007-2009)



Source: FAO, Statistics Division.

CHART 30: Trend of the value of food production (1992-2009)

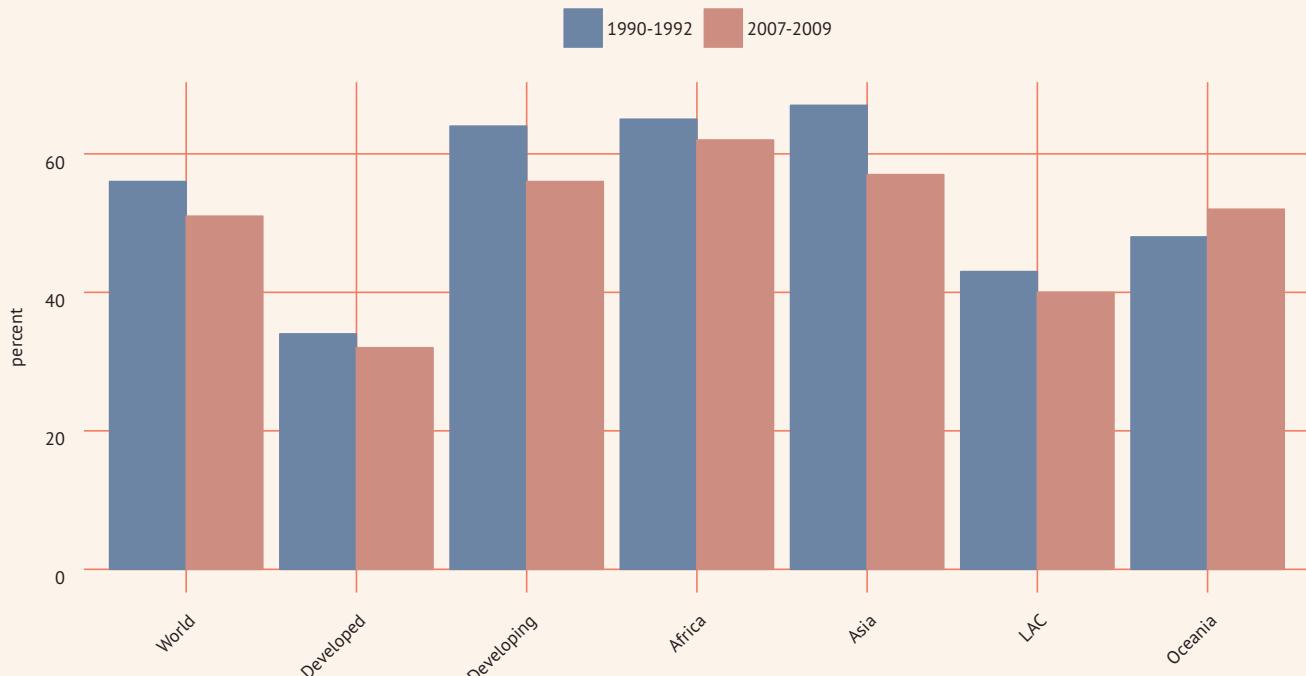


Source: FAO, Statistics Division.

Further reading

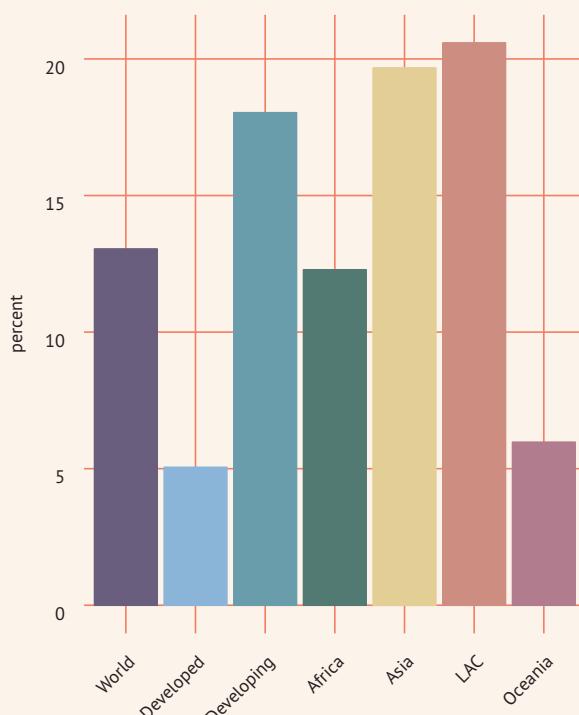
- FAO The State of Food Insecurity in the World 2012 - Economic Growth Is Necessary but Not Sufficient to Accelerate Reduction of Hunger and Malnutrition (www.fao.org/publications/sofi/en/)

CHART 31: Share of energy supply derived from cereals, roots and tubers (1990-1992 and 2007-2009)



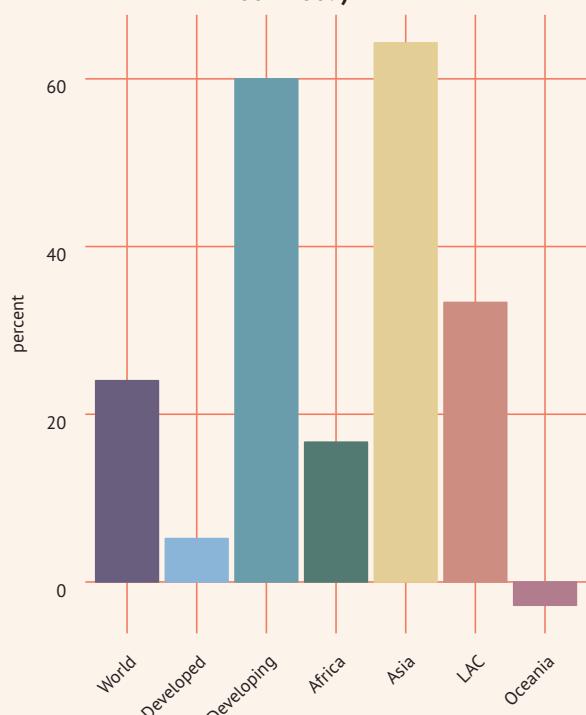
Source: FAO, Statistics Division.

CHART 32: Relative change in average protein supply (between 1990-1992 and 2007-2009)



Source: FAO, Statistics Division.

CHART 33: Relative change in average protein supply from animal origin (between 1990-1992 and 2007-2009)



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 obtain access to social support. Individuals' access to food is also heavily influenced by social variables, including gender positioning and power hierarchies within households.

According to Engel's law, the share of food expenditure in disposable income is expected to decline as income levels rise. This means that 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. Empirically, the degree of exposure to real income swings can be captured by the domestic food price level index, which is the ratio of the food purchasing power parity (FPPP) to the general PPP. 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.

The recent rise in international food prices has had diverse consequences for consumers at the country level because of several factors. These include the less than complete price transmission from international to domestic markets, which has several causes, including policies; and the extent to which vulnerable population groups are net food buyers or sellers. The result is that consumers have suffered a serious decline of purchasing power in some countries, while remaining largely unaffected by higher prices in others.

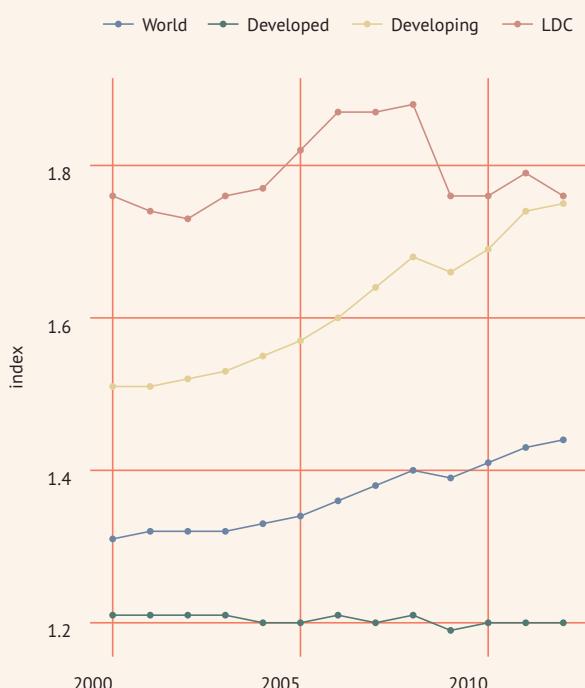
Information on price changes is sparse, but sufficient to indicate that the price increases of recent years have had different impacts on food security outcomes. In Uganda, for instance, food prices increased by 25 percent between 2003–2005 and 2010–2012, in step with an increase in the prevalence of undernourishment by almost 30 percent; a similar pattern has emerged in Paraguay. In some countries however, a declining prevalence of undernourishment has been accompanied by rising food prices, such as in China, Nepal and Pakistan.

As well as economic affordability, physical access to food is also facilitated by adequate infrastructure, such as railway lines and paved roads. These facilitate the functioning of markets, help reduce price arbitrage, and improve the delivery of food and non-food products among regions and between rural and urban areas. 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

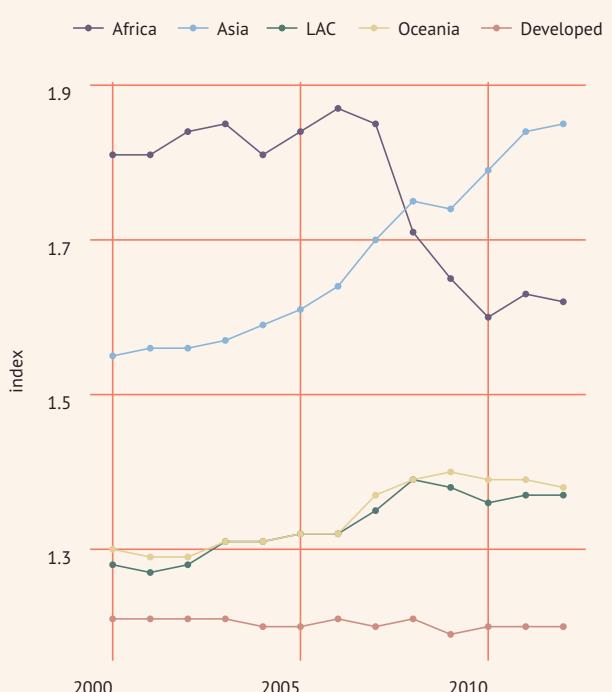
- FAO The State of Food Insecurity in the World 2012 - Economic Growth Is Necessary but Not Sufficient to Accelerate Reduction of Hunger and Malnutrition (www.fao.org/publications/sofi/en/)

CHART 34: Relative price of food by level of economic development (2000-2012)



Source: FAO, Statistics Division.

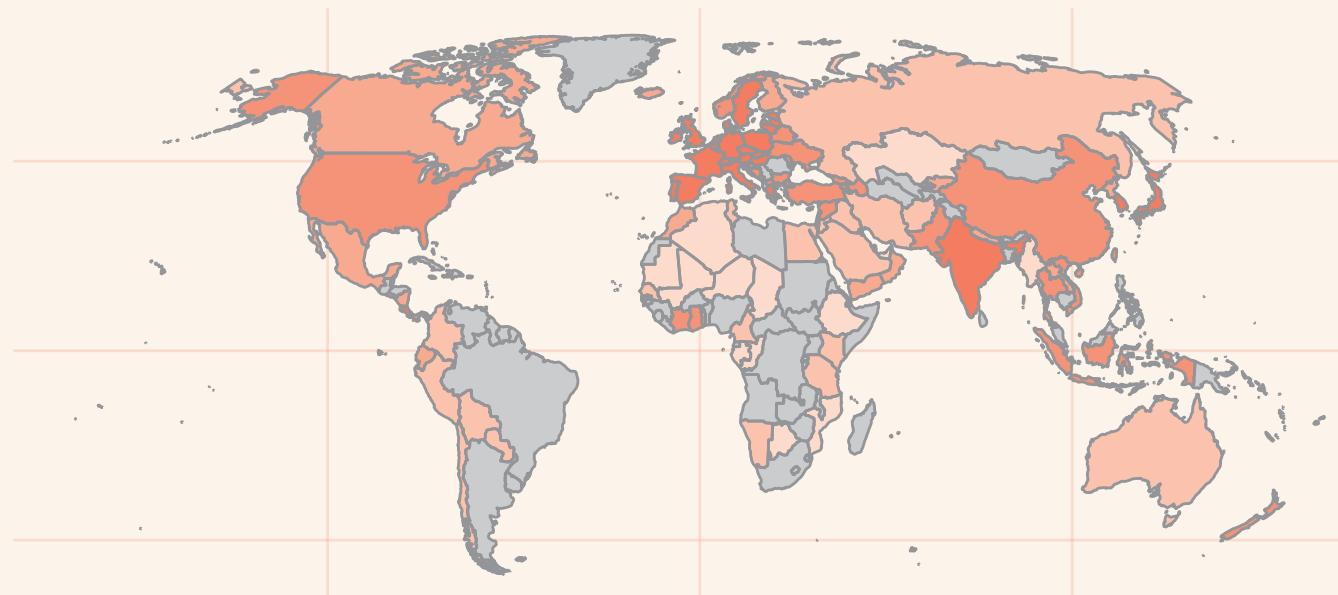
CHART 35: Relative price of food by region (2000-2012)



Source: FAO, Statistics Division.

MAP 22: Road density (per 100 km² of land area, 2005-2009*)

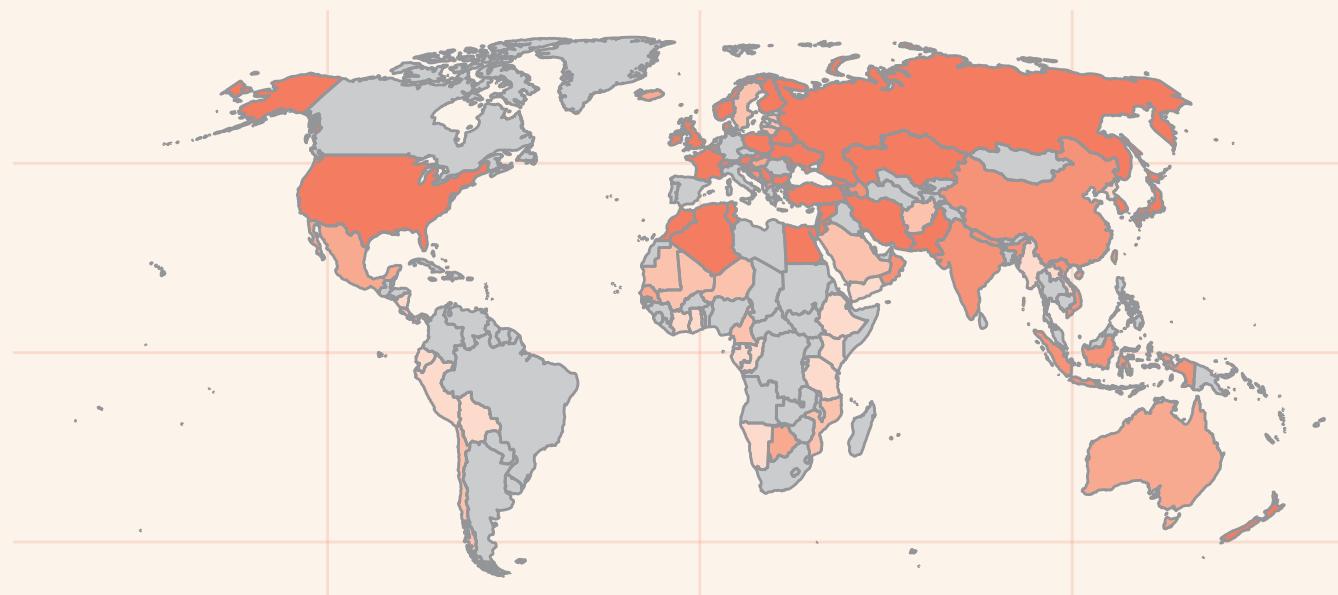
No data available 0 ~ < 5 5 ~ < 12.5 12.5 ~ < 25 25 ~ < 75 75 ~ 3 850



Source: FAO, Statistics Division.

MAP 23: Share of paved roads over total roads (percent, 2005-2009*)

No data available 0 ~ < 15 15 ~ < 30 30 ~ < 45 45 ~ < 60 60 ~ 100



Source: FAO, Statistics Division.

Clean water and sanitation

Access to clean water and sanitation facilities affects the health conditions of individuals and households, and hence their ability to utilize food. The body's capacity to absorb nutrients requires a good health status, especially in young individuals. Time poverty, related to women's roles in water collection and storage, and the link between safe water and good sanitation on one hand, and child health and well-being on the other also exert a profound influence on the ability to utilize food. These two indicators are therefore considered an important part of the suite of food security indicators computed and monitored by FAO.

In 2010, an estimated 11 percent of the world's population was living without access to adequate drinking-water. The last 20 years have seen significant progress in this area, and a decline from the much higher level of 24 percent in 1990. The relevant MDG target (MDG 7, target 7.C) has already been reached at the global level, but remarkable disparities persist among and within countries.

Ninety percent of the population in Latin America and the Caribbean have access to safe water. Similar trends exist in Northern Africa and Eastern Asia. But it is as low as 61 percent in sub-Saharan Africa and 53 percent in Oceania. Similar disparities are found within countries, particularly between urban and rural areas.

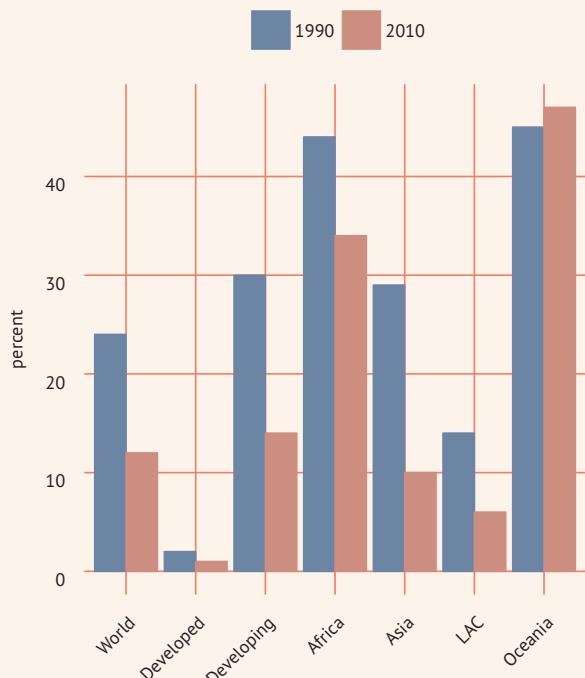
In several countries, low levels of access to clean water are associated with high levels of undernourishment and of underweight children, such as in Ethiopia, Mozambique, the Sudan (former) and Zambia. While this association does not allow the establishment of causality, it certainly warrants further investigation.

The quantity of water available, the distance of wells from dwellings, and the time needed for collection are just as important as access. Collecting water may constitute a significant burden for a substantial part of the population, particularly women, for whom water collection may come at the expense of other productive activities.

Unlike the water target, the MDG sanitation target has not yet been reached at the global level; given the current trend, it is unlikely to be achieved by 2015. Substantial progress has been recorded in developing countries over the last two decades, with access to improved sanitation increasing from 36 to 56 percent of the population. Sub-Saharan Africa and Southern Asia are the regions with the lowest coverage, but while fast improvements are reported for Southern Asia, sub-Saharan Africa records slower progress.

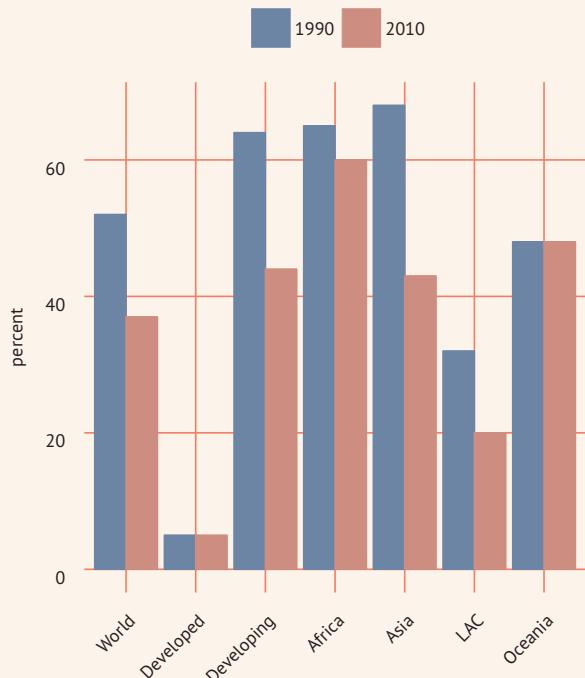
There also appears to be a clear relationship between hunger and access to improved sanitation at the country level. For instance, Burundi, Zambia and the Comoros report high levels of undernourishment (48 to 73 percent) and low levels of access to improved sanitation (50 percent). However, there are also clear deviations from this rule: access to improved sanitation is even lower in Cambodia, India and Nepal, where the prevalence of undernourishment is less than 20 percent.

CHART 36: Percentage of population without reasonable access to improved water sources (2010)

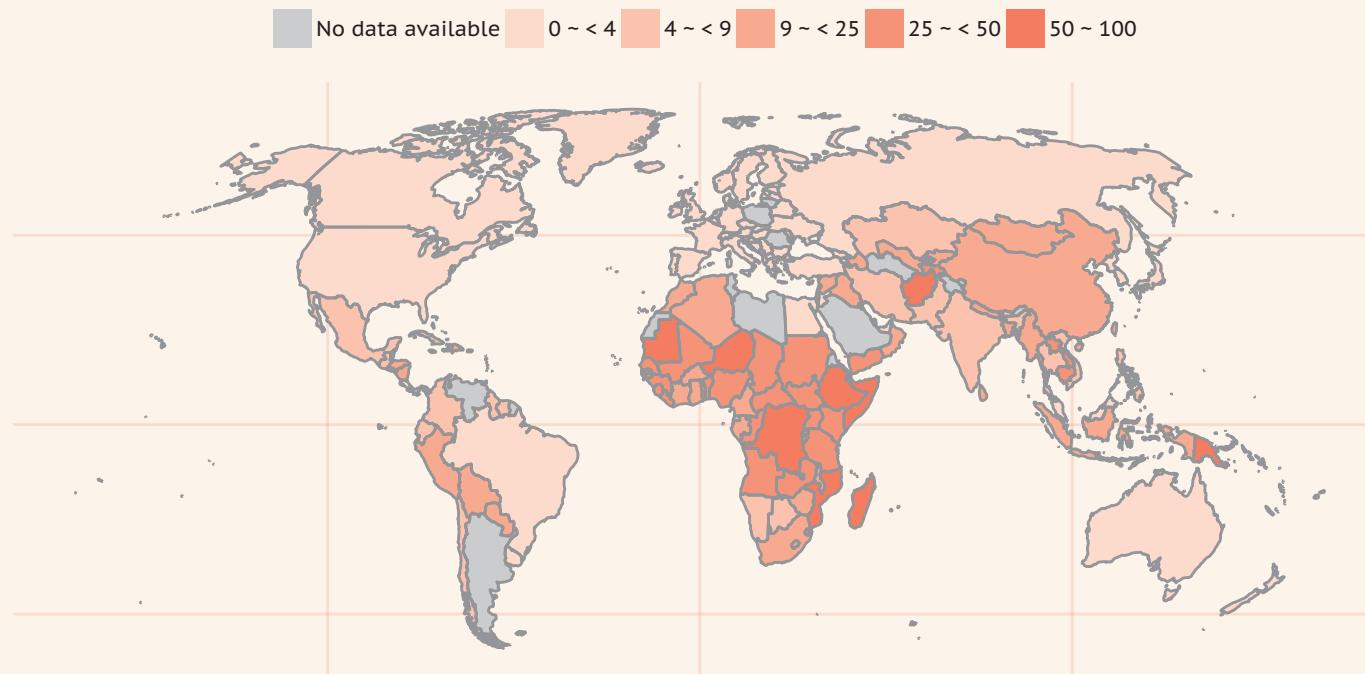


Source: FAO, Statistics Division. [\[Download\]](#)

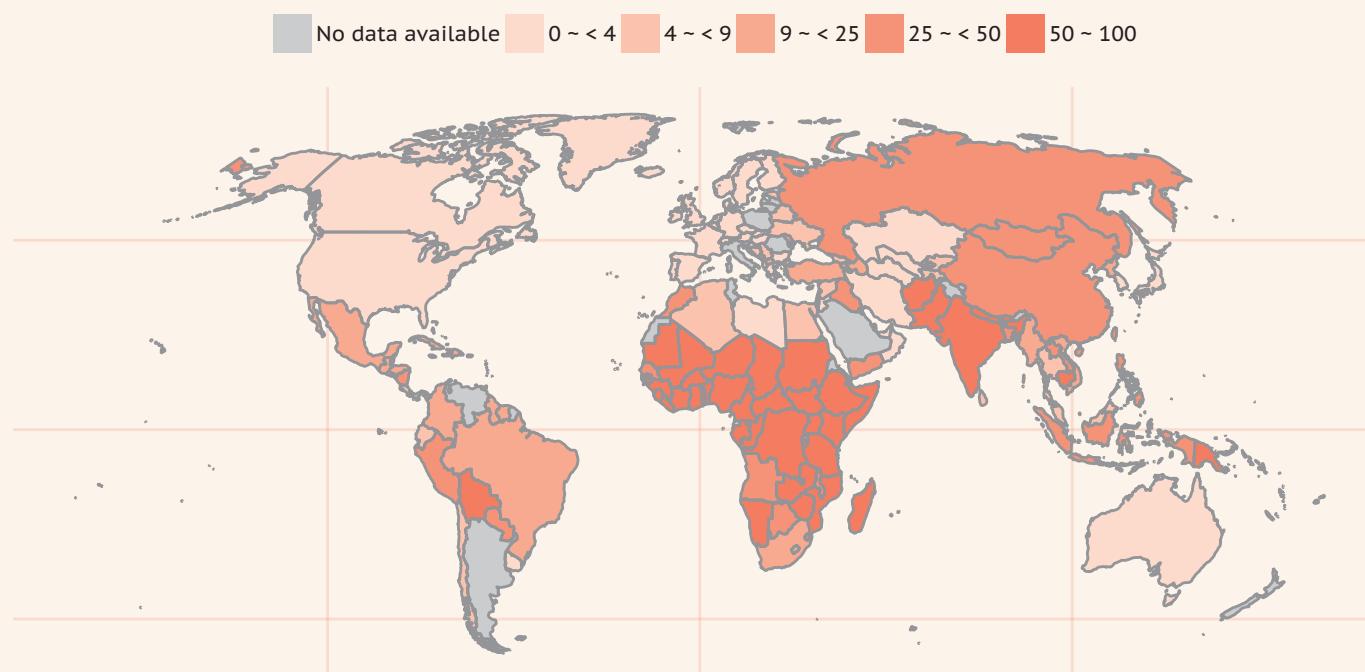
CHART 37: Percentage of population without reasonable access to improved sanitation facilities (2010)



Source: FAO, Statistics Division. [\[Download\]](#)

MAP 24: Share of population without reasonable access to improved water sources (percent, 2010)

Source: FAO, Statistics Division.

MAP 25: Share of population without reasonable access to improved sanitation facilities (percent, 2010)

Source: FAO, Statistics Division.

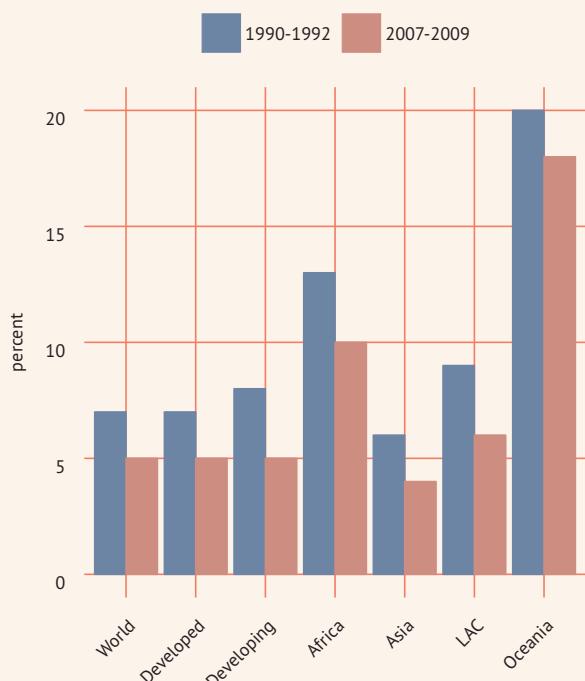
Economic and political stability

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. The poorer the household, the stronger the impact, as poor households spend a proportionally higher share of their incomes on food. On the supply side, more variability implies lower ability to invest and a higher risk of losing the invested capital and inputs.

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. These countries include Mexico for maize, the Philippines for rice, and Egypt for wheat and bread.

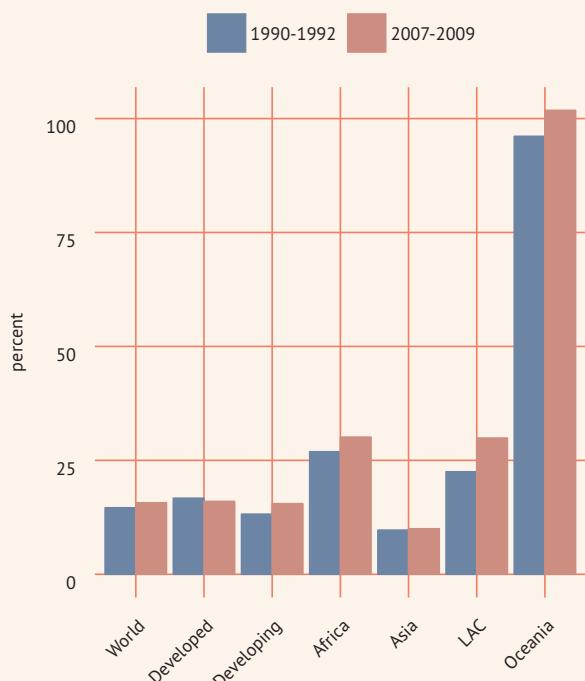
Countries' vulnerability to price changes on world markets also depends on their ability to generate foreign exchange through exports. For this reason, a relevant indicator of food security at the national level is the value share of staple food imports relative to the value of merchandise exports. Among regions, this indicator is highest for Oceania and several African countries.

CHART 38: Value of cereal imports over total merchandise exports (1990-1992 and 2007-2009)



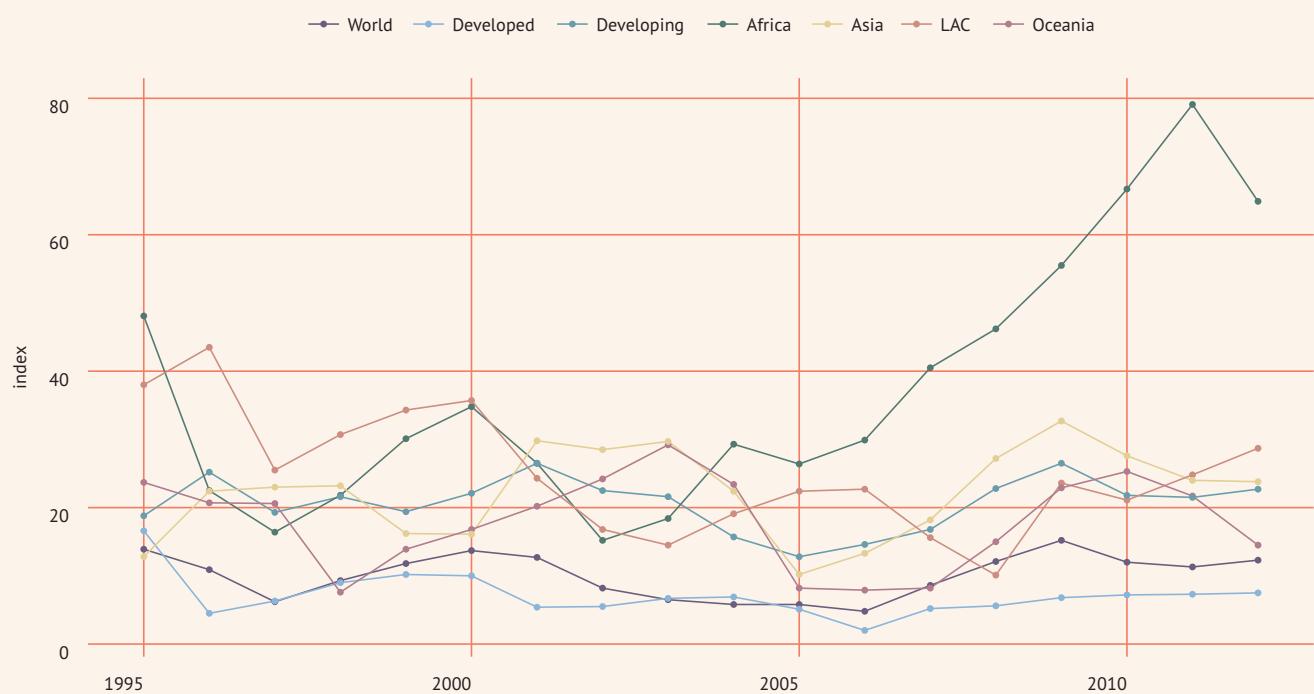
Source: FAO, Statistics Division.

CHART 39: Cereal import dependency ratio (1990-1992 and 2007-2009)



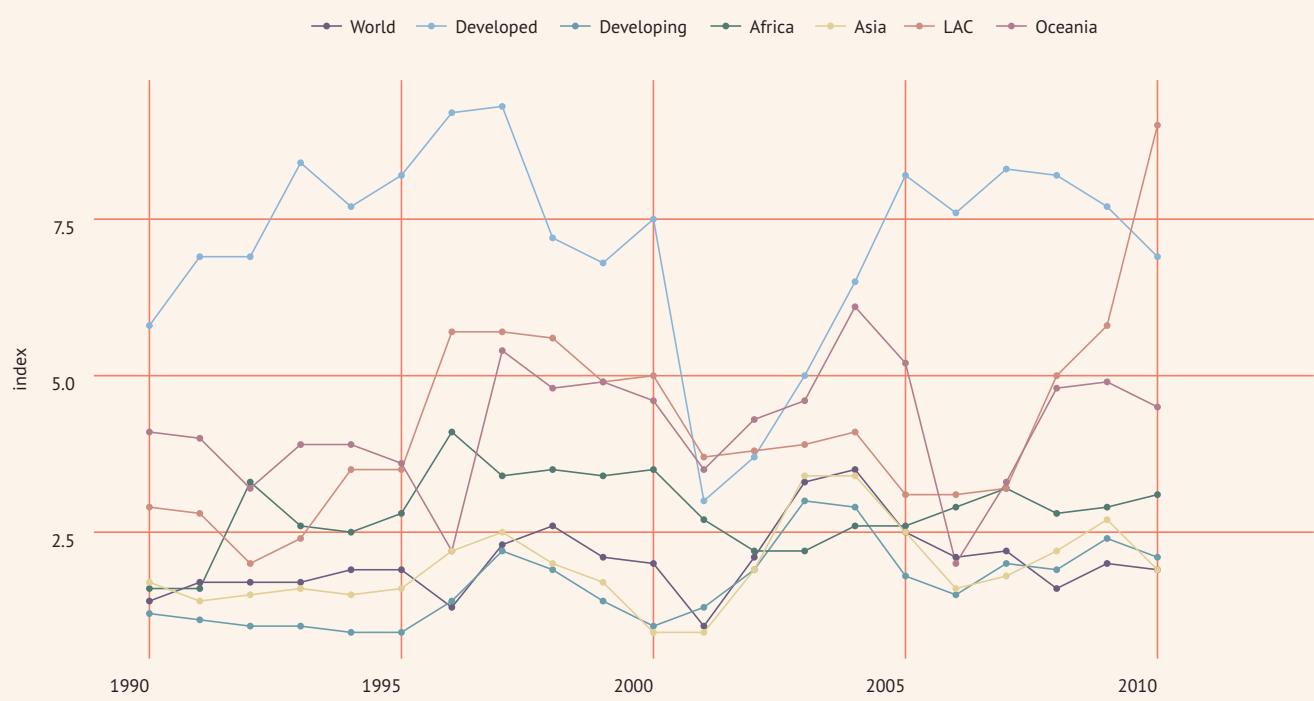
Source: FAO, Statistics Division.

CHART 40: Domestic food price volatility (1995-2012)



Source: FAO, Statistics Division.

CHART 41: Per capita food production variability (1990-2012)



Source: FAO, Statistics Division.

Fluctuations in food production, supply and prices also convey important information about the vulnerability of countries and their populations. Three indicators are computed as deviations of the relevant three variables from the trend for the previous five years. Plotting of these indicators highlights sharp fluctuations over recent years, but no trends. High-income countries show high variability of production, but smaller price variability than in other country groups. In developing countries, production variability tends to be lower than price variability. Among major regions, Oceania and Latin America and the Caribbean show the widest fluctuations in production over the past decade, while variability has been lower in Asia.

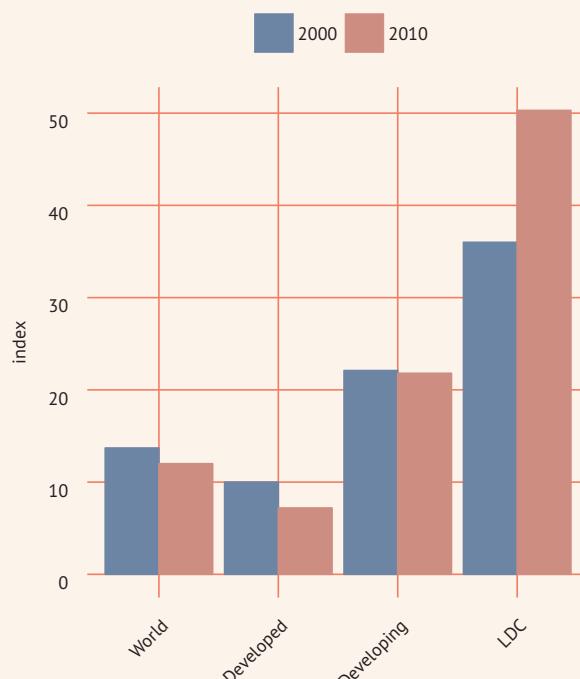
In some countries, a high prevalence of undernourishment has been associated with relatively low variability in supply in recent years. For instance, in Burundi, Eritrea and Zambia, between 2005 and 2011, the prevalence of undernourishment varied between 47 and 73 percent, while the deviation of production from the trends was within 30 percent. At the other extreme, are countries such as Kazakhstan, where supply variability has been as high as 143 percent since 2005, but the prevalence of undernourishment has remained below 5 percent.

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. Low political stability is associated with a high prevalence of undernourishment, ranging from approximately 20 to 70 percent in countries such as Côte d'Ivoire, the Central African Republic, Burundi and Ethiopia.

Further reading

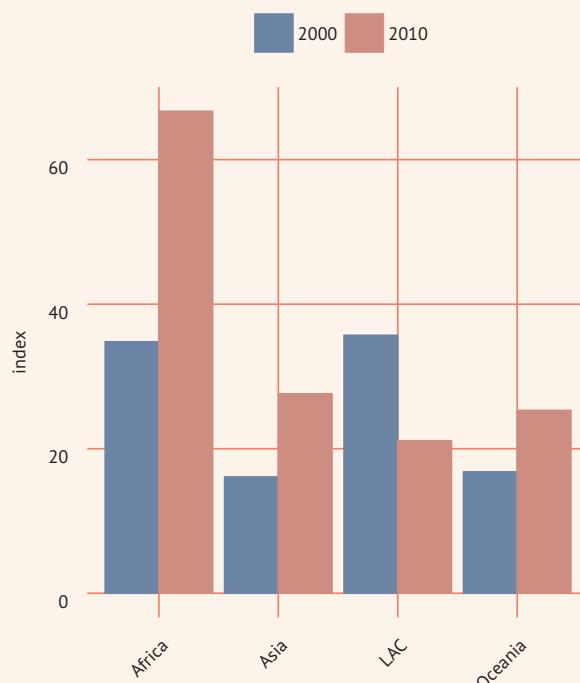
- FAO The State of Food Insecurity in the World 2012 - Economic Growth Is Necessary but Not Sufficient to Accelerate Reduction of Hunger and Malnutrition (www.fao.org/publications/sofi/en/)
- Global Information and Early Warning System (www.fao.org/gIEWS/english/index.htm)
- Prakash (2011) (www.fao.org/economic/est/issues/volatility/vgm/en/)

CHART 42: Domestic food price volatility by level of economic development (2000 and 2010)



Source: FAO, Statistics Division.

CHART 43: Domestic food price volatility by region (2000 and 2010)



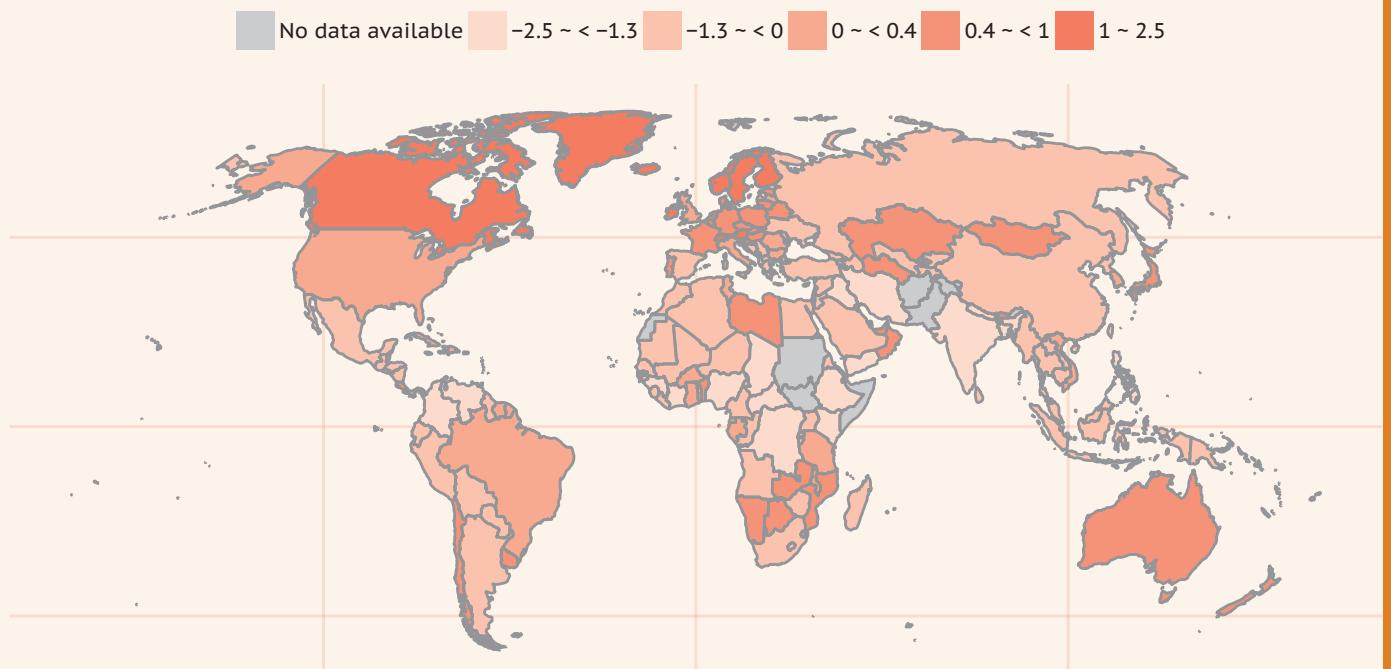
Source: FAO, Statistics Division.

CHART 44: Per capita food supply variability (1995-2009)



Source: FAO, Statistics Division.

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



Source: FAO, Statistics Division.

Education and health

Defeating chronic hunger and poverty requires investments in people and their productivity. Health care, clean water and sanitation, social services and education are primary means of improving a population's potential and its ability to generate sustainable incomes.

Education, particularly for women, is a proven and important means of combating child malnutrition and infant mortality. Literacy and education show a positive correlation with living conditions for women and their children, along with knowledge on improved child feeding practices, food preservation and better sanitation.

The average primary completion rate in low- and middle-income countries increased by 15 percent between the early 1990s and 2010, with faster improvements for girls. However, wide disparities remain in both access to and equality of educational attainments for girls and boys, both among and within countries, particularly in those dominated by large rural poor populations. In Africa, 72 percent of children completed primary school, compared with nearly 100 percent in most parts of Latin America. Relatively low education levels are found to be associated with a high prevalence of undernourishment, ranging from 40 to 70 percent in countries such as Eritrea and Uganda.

The extent and quality of health care systems, especially for poor and vulnerable population groups, is a key determinant of food access conditions and hence food security outcomes.

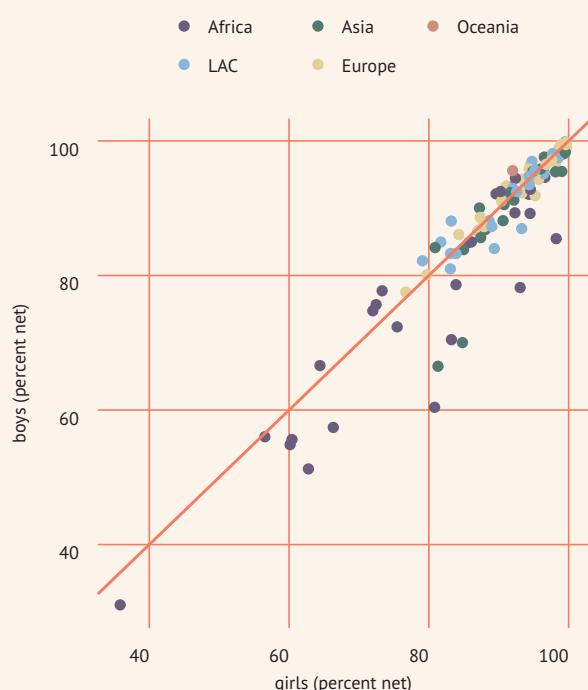
Health care systems are mostly financed from a mix of government resources, the private sector, non-governmental organizations (NGOs) and foreign assistance. The distribution of expenditure on health care across countries is vastly uneven, as are the amounts of resources employed. The International Labour 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, ranging from 17 percent in Northern America, to 7.7 percent in Latin America and the Caribbean and 3.6 percent in South-Eastern Asia. Estimates vary more widely at the country level. In general, a low share of GDP invested in health care is associated with a high prevalence of undernourishment. Examples include countries such as Eritrea, the Plurinational State of Bolivia and Sri Lanka.

Further reading

- UNESCO education (www.unesco.org/new/en/education/)
- UNICEF Water, Sanitation and Hygiene (www.unicef.org/wash/)
- 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 45: Girls' and boys' enrolment in primary education (2010)



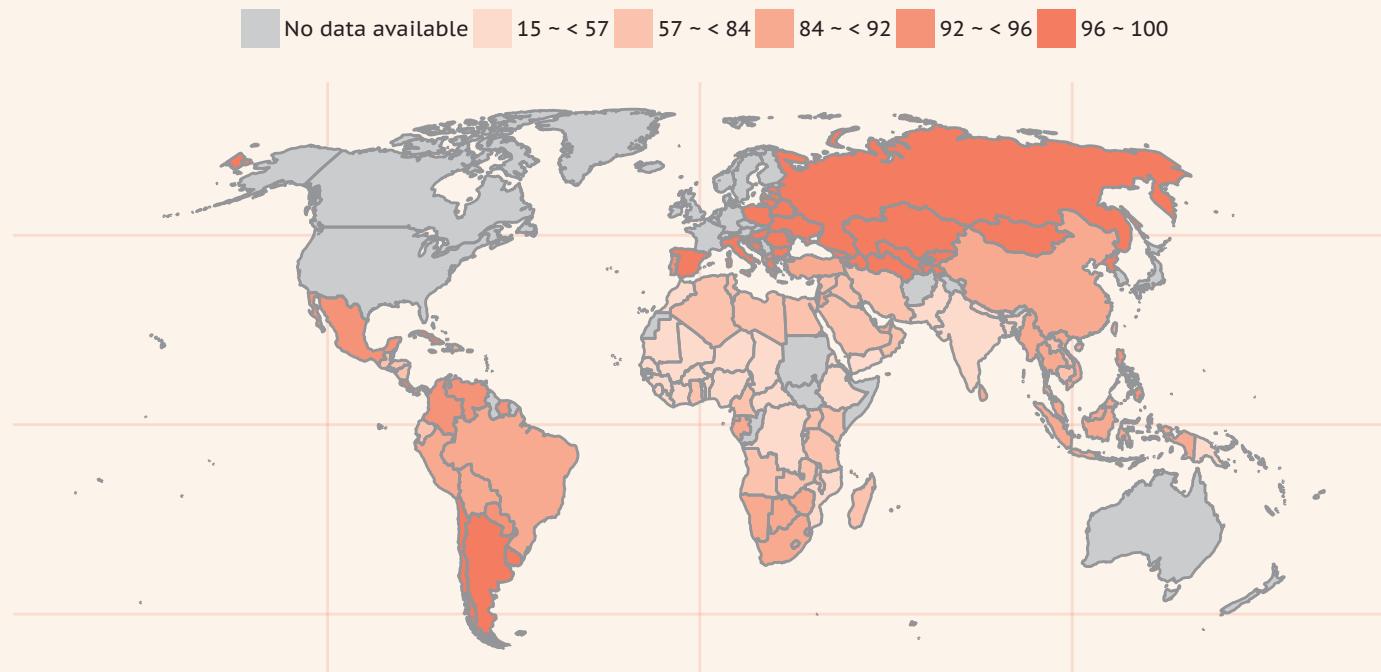
Source: World Bank (WDI).

CHART 46: Total health expenditure, share of GDP (1995-2010)



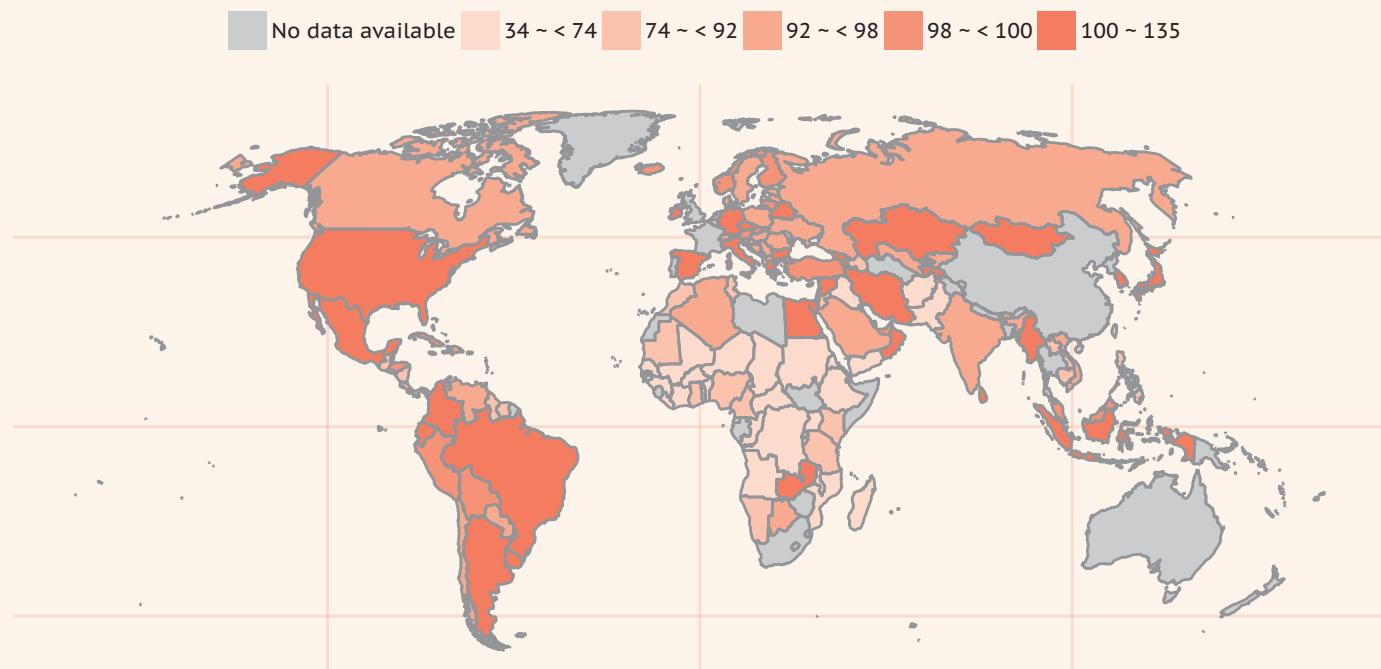
Source: World Bank (WDI).

MAP 27: Adult female literacy rate, 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 threaten food security, especially in countries and areas where poverty is high, livelihoods are unsustainable and institutions are fragile. Risks tend to be higher for women and vulnerable population groups. FAO has identified 22 countries in a state of protracted crisis, defined as “those environments in which a significant proportion of the population is acutely vulnerable to death, disease and disruption of livelihoods over a prolonged period of time” (FAO, 2010b). Of these countries, 17 are in sub-Saharan Africa.

Food insecurity is one of the most common outcomes for countries in protracted crises. Those identified by FAO contain approximately 160 million undernourished people, who account for nearly 40 percent of the countries’ combined population and 20 percent of all the undernourished people in the world.

Indicators of risks therefore have to be considered among those that highlight the causes of food insecurity. 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.

UNHCR computes the number of people exposed to risks arising from political and military events. In 2011, about 31 million people were classified as “population of concern” – refugees, people who have been internally displaced by conflict, and asylum seekers. Four-fifths of the world’s refugees are hosted in developing countries, including some of the world’s poorest countries, thus increasing the strain both in terms of refugee numbers and in relation to the size of their economies.

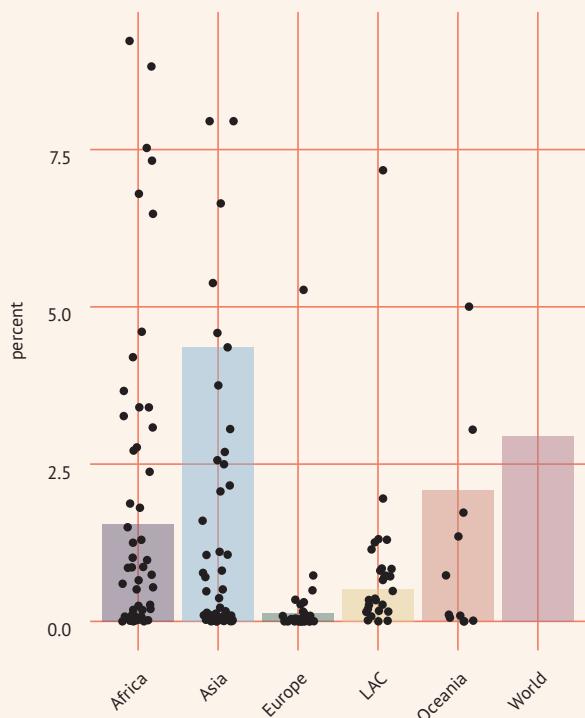
Prevalence of undernourishment ranging from about 30 to 65 percent is associated with large numbers of population at risk in countries such as Eritrea, Liberia and Sierra Leone. Elsewhere, a high share of the population is at risk, but data on undernourishment are neither available nor easy to collect, such as in Afghanistan and Somalia.

CRED recorded 332 natural disasters in 2011, with more than 30 000 deaths. The single largest event was the flood in China, which affected 67.9 million people in June 2011. In many countries, food insecurity seems to correlate to a high share of population exposed to natural disasters. Examples include Eritrea and Malawi, where undernourishment ranged from 23 to 65 percent; Swaziland and Zambia, with undernourishment rates of 27 to 47 percent; and Tajikistan, with 30 percent prevalence of undernourishment.

Further reading

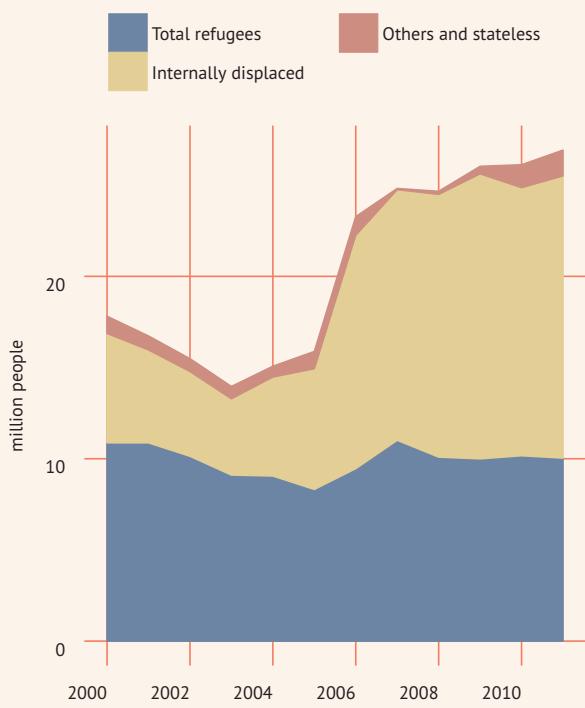
- Centre for Research on the Epidemiology of Disasters (www.cred.be/)
- United Nations High Commissioner for Refugees (www.unhcr.org)
- Internal Displacement Monitoring Centre (www.internal-displacement.org/)

CHART 47: Droughts, floods, extreme temperatures - share of population affected (average 1990-2009)



Source: World Bank (WDI).

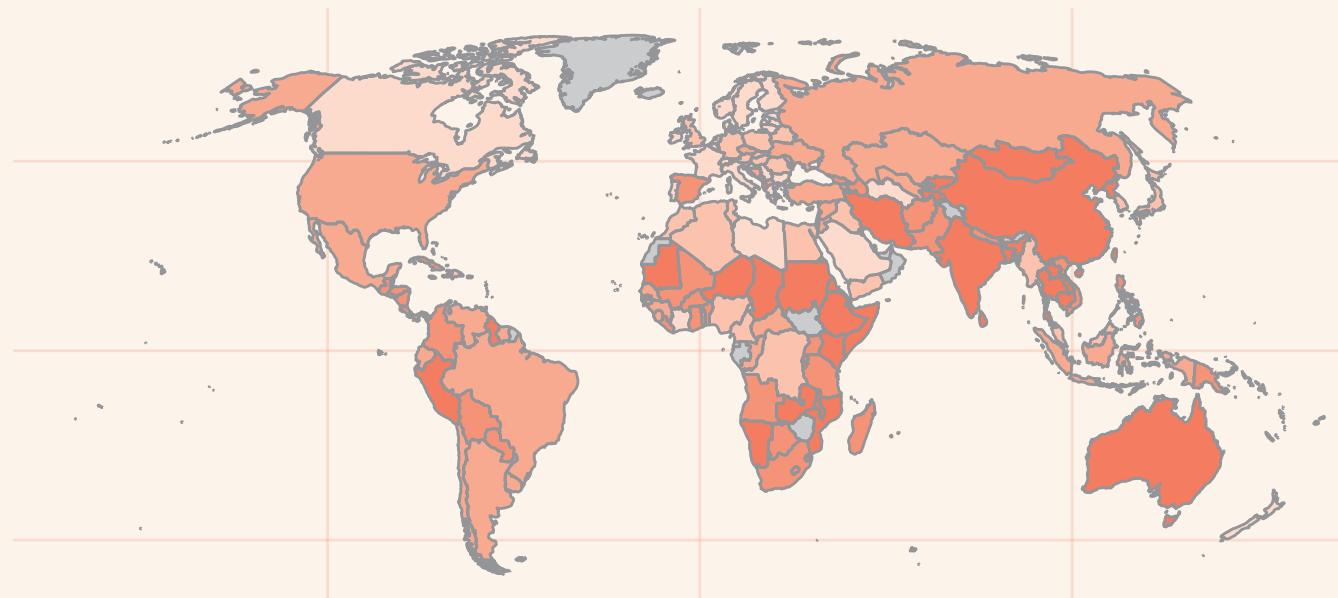
CHART 48: UNHCR total population of concern by type over time (2000-2011)



Source: Statistical Online Population Database.

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

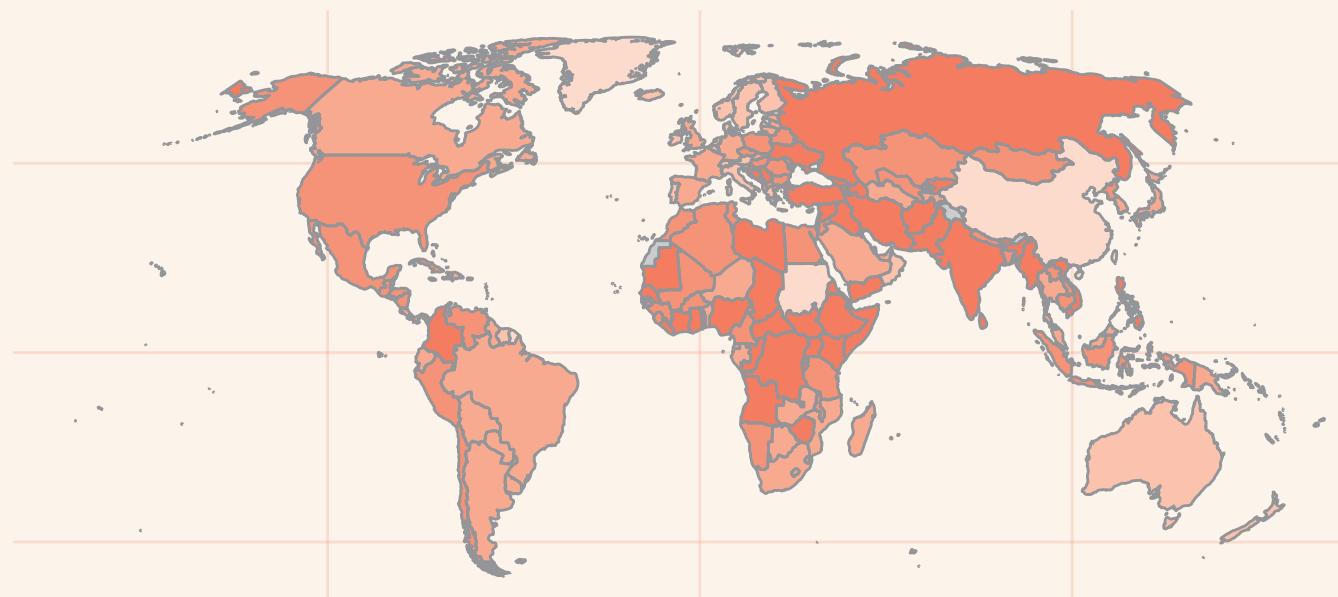
No data available 0 ~ < 0.011 0.011 ~ < 0.1 0.1 ~ < 0.64 0.64 ~ < 1.9 1.9 ~ 9.227



Source: World Bank (WDI).

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

No data available 0 ~ < 0.001 0.001 ~ < 0.11 0.11 ~ < 1.3 1.3 ~ < 18 18 ~ 4 327



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		%		kcal/cap/day		%	
	1990-92	2010-12	million people	million people	2000-10*	1990-92	2007-09	1990-92	2010-12	
World	18.6	12.5	1 000	868		130	97	26.1	19.1	
Developing countries	23.2	14.9	980	852		162	117	32	22.5	
Africa	27.3	22.9	175	239		195	171	34.7	28.9	
North Africa	< 5	< 5	5	4		21	17	7	5.8	
Algeria	5.2	< 5	1	1		30	25	9.2	7	
Egypt	< 5	< 5	1	1		13	10	5.5	< 5	
Libya	< 5	< 5				5	10	< 5	< 5	
Morocco	7.1	5.5	2	2		40	32	10.7	9.7	
Tunisia	< 5	< 5				5	5	< 5	< 5	
Western Sahara										
Sub-Saharan Africa	32.8	26.8	170	234		235	202	41.1	33.3	
Angola	63.9	27.4	7	5		505	202	71.5	36.1	
Benin	22.4	8.1	1	1		138	64	30.5	13.2	
Botswana	27.4	27.9		1		178	240	35	41.1	
Burkina Faso	22.9	25.9	2	4	60	143	172	31.1	31.3	
Burundi	49	73.4	3	6		349	640	56	81.4	
Cameroon	38.7	15.7	5	3		266	101	49.2	23	
Cape Verde	12.2	8.9			47	72	71	20.8	17.4	
Central African Republic	49.5	30	1	1		372	233	58.9	40.7	
Chad	61.1	33.4	4	4	82	502	284	68.8	40.1	
Comoros	43.5	70		1		361	607	51.8	77.8	
Congo	42.8	37.4	1	2		312	245	52.6	47.5	
Côte d'Ivoire	13.7	21.4	2	4	45	78	122	21.1	27.5	
Democratic Republic of the Congo			2	34				11.6	55.6	
Djibouti	68	19.8				601	174	78	29.2	
Equatorial Guinea										
Eritrea	72.4	65.4	2	4			584	82.2	75.4	
Ethiopia	68	40.2	34	34	57		377	77.5	46.9	
Gabon	10.1	6.5			47	59	37	16.8	12.7	
Gambia	19.5	14.4				121	81	25.6	20.3	
Ghana	40.5	< 5	6	1		294	35	54.5	6.7	
Guinea	18.4	17.3	1	2		112	93	24.7	22.9	
Guinea-Bissau	22	8.7				139	91	29.9	14.8	
Kenya	35.6	30.4	9	13	76	227	216	45	42	
Lesotho	16.9	16.6				101	110	24.6	24.7	
Liberia	32.9	31.4	1	1		228	208	37	39	
Madagascar	24.8	33.4	3	7		154	188	33.1	42.1	
Malawi	44.8	23.1	4	4	78	329	142	54.2	30.8	
Mali	25.3	7.9	2	1	79	156	52	32.9	12	
Mauritania	12.4	9.3				73	46	18.9	14.3	
Mauritius	8.6	5.7			49	58	38	15.5	11.4	
Mayotte										
Mozambique	57.1	39.2	8	9	81	446	298	65.2	46.1	
Namibia	37.5	33.9	1	1		259	234	47.4	46.8	
Niger	36.9	12.6	3	2	51	248	77	44.3	16.9	
Nigeria	19.3	8.5	19	14		120	42	29.7	13.1	
Réunion										
Rwanda	52.6	28.9	4	3	59	395	249	60.7	38.1	
Saint Helena, Ascension and Tristan da Cunha										
Sao Tome and Principe	22.6	7.7				142	46	32.1	13.1	
Senegal	21.7	20.5	2	3		137	104	30.6	29.6	
Seychelles	14.6	8.6				85	51	25.7	15.2	
Sierra Leone	41.9	28.8	2	2		328	243	51	37.9	
Somalia			5	6				79	74.3	
South Africa	< 5	< 5	2	1	49	29	21	9.3	6.2	
South Sudan								51.8	46.2	
Sudan										
Sudan (former)	42.1	39.4	11	18	72	296	293			
Swaziland	16.1	27				94	185	23.1	42.3	
Togo	32.8	16.5	1	1	85	222	129	44.1	25	
Uganda	26.6	34.6	5	12	59	163	198	35.8	42	
United Republic of Tanzania	29.4	38.8	8	18	77	184	249	38.1	46.7	
Zambia	34.3	47.4	3	6	77	229	352	43.1	56.3	
Zimbabwe	44.1	32.8	5	4		334	258	52.5	42.4	

TABLE 12: Outcomes: Inadequate access to food (continued)

	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 million people	million people	2000-10*	kcal/cap/day	1990-92	2007-09	1990-92	2010-12
	1990-92	2010-12	1990-92	2010-12						
Asia	23.7	13.9	739	563		165	111	33	21.9	
Caucasus and Central Asia	12.8	7.4	9	6			64	18.6	12.9	
Armenia	22.8	< 5	1		64		25	39	8	
Azerbaijan	23	< 5	2		62		15	37.6	< 5	
Georgia	60.4	24.7		1	54		282	75.1	33.3	
Kazakhstan	< 5	< 5	3	1			4	< 5	< 5	
Kyrgyzstan	15.5	6.4	1				58	27	13.3	
Tajikistan	31	31.7	2	2	74		306	42.5	40.2	
Turkmenistan	9.5	< 5					29	15.8	7.2	
Uzbekistan	< 5	6.1	1	2			53	8.2	13.5	
East Asia	20.8	11.5	261	167		151	80	16.4	18.9	
China										
Democratic People's Republic of Korea	25.4	32	5	8		183	315	36.4	49	
Mongolia	37.5	24.2	1	1		265	248	49	33.8	
Republic of Korea	< 5	< 5	1			13	7	5.3	< 5	
East Asia (excluding China)	10.4	11.7	7	9		74	115			
South Asia	26.8	17.6	327	304		175	135	33.6	25.9	
Afghanistan			7	12				54.4	45.2	
Bangladesh	34.6	16.8	37	25	65	235	115	42	26.8	
Bhutan										
India	26.9	17.5	240	217	68	176	135	35.4	27.5	
Iran (Islamic Republic of)	< 5	< 5	2	4		17	36	5.6	9.5	
Maldives	10.9	5.6			35	59	48	17.6	11.4	
Nepal	25.9	18	5	5	72	160	139	34.9	25.9	
Pakistan	26.4	19.9	30	35	75	165	157	34.9	27.7	
Sri Lanka	33.9	24	6	5		245	228	44.8	32	
South Asia (excluding India)	26.4	17.8	87	87		175	133			
South East Asia	29.6	10.9	134	65		214	93	40.1	18.1	
Brunei Darussalam	< 5	< 5				14	6	6.3	< 5	
Cambodia	39.9	17.1	4	2	84	250	145	49.7	27.1	
Indonesia	19.9	8.6	37	21	22	129	83	30.3	15.8	
Lao People's Democratic Republic	44.6	27.8	2	2	84	332	212	52.9	38.3	
Malaysia	< 5	< 5	1	1		23	18	9.2	6.9	
Myanmar			17	10				57.3	29.5	
Philippines	24.2	17	15	16	61	155	97	32.9	23.8	
Singapore				31						
Thailand	43.8	7.3	25	5		357	67	54.6	15.5	
Timor-Leste	40.1	38.2				280	187	53.1	46.1	
Viet Nam	46.9	9	32	8	65	357	96			
West Asia	6.6	10.1	8	21		39	63	9.7	14.2	
Bahrain										
Iraq			2	9	49			15	32.9	
Jordan	6.7	< 5				38	23	10.2	7.6	
Kuwait	28.7	< 5	1			215	8	51.9	< 5	
Lebanon	< 5	< 5				23	23	6.9	7	
Occupied Palestinian Territory	17.9	31		1	37	104	166	26.6	42.4	
Oman										
Qatar										
Saudi Arabia	< 5	< 5	1	1		21	15	6.5	6.4	
Syrian Arab Republic	< 5	< 5	1	1		27	17	7.8	5.8	
Turkey	< 5	< 5		1	43	3	6	< 5	< 5	
United Arab Emirates	< 5	< 5				6	19	< 5	9.5	
Yemen	28.6	32.4	4	8		168	200	37.2	41.5	

TABLE 12: Outcomes: Inadequate access to food (continued)

	Inadequate access to food								
	prevalence of		number of		% of food expenditure of the poor	depth of the food deficit		prevalence of food inadequacy	
	undernourishment 1990-92	1990-92 2010-12	undernourished million people 1990-92	undernourished million people 2010-12	2000-10*	kcal/cap/day 1990-92	kcal/cap/day 2007-09	1990-92	2010-12
Latin America and the Caribbean	14.6	8.3	65	49		98	63	21.8	15.2
Caribbean	28.5	17.8	9	7		224	149	36.6	24.7
Anguilla									
Antigua and Barbuda	18.5	20.5				127	169	26.2	32.5
Aruba									
Bahamas	11.3	7.2				75	52	18.1	15.4
Barbados	< 5	< 5				20	25	6.8	8.8
British Virgin Islands									
Cayman Islands									
Cuba	11.5	< 5	1			79	8	15.8	< 5
Dominica	< 5	< 5				31	19	9.5	5.7
Dominican Republic	30.4	15.4	2	2		213	109	44.9	25.5
Grenada	17.3	17.9				112	174	25.9	28.7
Guadeloupe									
Haiti	63.5	44.5	5	5		550	402	70.9	53.2
Jamaica	9	8.7				59	53	17.7	17
Martinique									
Montserrat									
Netherlands Antilles	9.8	< 5				69	24	22	9
Puerto Rico									
Saint Kitts and Nevis	15.8	14				108	129	23.2	25.6
Saint Lucia	11.9	14.6				78	90	20.7	24.6
Saint Vincent and the Grenadines	19.2	< 5				131	41	30.6	10.8
Trinidad and Tobago	13.6	9.3				89	81	20	17.1
Turks and Caicos Islands									
United States Virgin Islands									
Latin America	13.6	7.7	57	42		88	57	20.7	14.5
Argentina	< 5	< 5	1	2		12	22	5.4	9.6
Belize	9.2	6.8				52	46	15.4	12.6
Bolivia (Plurinational State of)	34.6	24.1	2	2	54	228	185	45.1	35.6
Brazil	14.9	6.9	23	13	44	96	62	21.9	12.3
Chile	8.1	< 5	1	1		53	25	17.6	10
Colombia	19.1	12.6	6	6		127	83	29.3	20.2
Costa Rica	< 5	6.5				24	31	8.1	13.1
Ecuador	24.5	18.3	3	3	54	156	128	38.6	30.7
El Salvador	15.6	12.3	1	1		94	72	23	19.8
Falkland Islands (Malvinas)									
French Guiana									
Guatemala	16.2	30.4	1	4	53	93	196	25.3	37.8
Guyana	19.7	5.1				139	49	32.5	8.8
Honduras	21.4	9.6	1	1		128	66	29.2	15.1
Mexico	< 5	< 5	3	2	43	22	3	8.3	10
Nicaragua	55.1	20.1	2	1	63	423	160	62.8	28.3
Panama	22.8	10.2	1		52	153	87	34.3	19.2
Paraguay	19.7	25.5	1	2		127	114	29.8	36.4
Peru	32.6	11.2	7	3	57	219	103	42.5	20.1
Suriname	17.7	11.4				120	96	28	21.3
Uruguay	7.3	< 5				49	31	16.1	12.2
Venezuela (Bolivarian Republic of)	13.5	< 5	3	1	61	85	25	21.3	6.4
Oceania	13.6	12.1	1	1		82	73	21.3	19.9
American Samoa									
Cook Islands									
Fiji	6.2	< 5				39	21	12	7.9
French Polynesia	< 5	< 5				24	23	8.2	8.3
Guam									
Kiribati	8.8	8.2				53	40	15.1	13.7
Marshall Islands									
Micronesia (Federated States of)									
Nauru									
New Caledonia	6.7	< 5				42	38	11.2	8.9
Niue									
Northern Mariana Islands									
Palau									
Papua New Guinea			1	1				23.5	22.9
Samoa	12.8	< 5				80	21	17.9	8.1
Solomon Islands	23	12.7				140	77	33.1	20.3
Tokelau									
Tonga									
Tuvalu									
Vanuatu	11.3	8.5				64	39	16.8	13.2
Wallis and Futuna Islands									

TABLE 12: Outcomes: Inadequate access to food (continued)

	Inadequate access to food								
	prevalence of		number of		% of food expenditure of the poor	depth of the food deficit		prevalence of food inadequacy	
	undernourishment 1990-92	1990-92 %	undernourished million people 1990-92	undernourished million people 2010-12	2000-10*	kcal/cap/day 1990-92	kcal/cap/day 2007-09	1990-92 %	2010-12 %
Developed countries	< 5	< 5	21	17	30	12	9	< 5	< 5
Albania						54	70	19.3	15.4
Andorra						10	5	< 5	< 5
Australia						2	1	< 5	< 5
Austria					43	7	< 5	< 5	
Belarus					15	1	< 5	< 5	
Belgium					47	68	14.5	10	
Bermuda						19	19.2	8.3	
Bosnia and Herzegovina					53	27	55	9.3	16.9
Bulgaria						11	3	5.4	< 5
Canada					35	126	11	33.5	< 5
Croatia					28	38	68	13.3	20.3
Cyprus					21	7	5.9	< 5	
Czech Republic					11	9	4	< 5	< 5
Denmark					46	25	20.2	7.9	
Estonia									
Faroe Islands									
Finland					19	14	8	5.1	< 5
France					24	2	2	< 5	< 5
Germany						5	2	< 5	< 5
Gibraltar									
Greece						2	1	< 5	< 5
Greenland									
Holy See									
Hungary					34	2	8	< 5	< 5
Iceland					20	12	4	5	< 5
Ireland						1	1	< 5	< 5
Israel					1			< 5	< 5
Italy					2	1	< 5	< 5	
Japan					15	31	6.5	14.2	
Latvia					51	27	< 5	10.2	
Liechtenstein									
Lithuania					59	9	11.4	< 5	
Luxembourg						3	2	< 5	< 5
Malta						8	4	< 5	< 5
Monaco									
Montenegro							42	13.1	
Netherlands					11	9	8	< 5	< 5
New Zealand						6	9	< 5	5.3
Norway					17	8	3	< 5	< 5
Poland					49	4	5	< 5	< 5
Portugal						4	2	< 5	< 5
Republic of Moldova					56	136	26.6	35.3	
Romania					72	15	3	6.6	< 5
Russian Federation							12	10	5.3
Saint Pierre and Miquelon									
San Marino									
Serbia							42	13.1	
Serbia and Montenegro					52			17	
Slovakia							37	10.6	
Slovenia						6	9.6	< 5	
Spain					24	6	8	< 5	< 5
Sweden						17	12	7.9	5.3
Switzerland					11	4	3	< 5	< 5
The former Yugoslav Republic of Macedonia							29	12.4	11.1
Ukraine							8	7	< 5
United Kingdom					21	6	3	< 5	< 5
United States of America					18	2	1	< 5	< 5
Least developed countries	37.9	30.6	201	260		283	236	46	38.5
Landlocked developing countries	35.4	27.1	96	113		270	213	42.6	34.2
Small island developing States	25.4	16.9	11	9		193	134	33.6	23.9
Low income economies	37.9	30.1	192	245		275	237	46.3	38.4
Lower-middle-income economies	24.4	15.6	441	395		162	114	32.9	23.8
Low-income food-deficit countries	27.6	19.8	543	573		187	151	36.1	28.2

TABLE 13: Outcomes: Utilization

	Utilization							
	children under 5 years of age				adults			
	underweight		stunted		wasted		underweight	
	% 1990-95*	% 2005-11*	% 1990-95*	% 2005-11*	% 1990-95*	% 2005-11*	% 1990-2011*	% 2005-11*
World								
Developing countries								
Africa								
North Africa								
Algeria	11.3	3.7	22.5	15.9	9.6	4.0		
Egypt	8.2	6.8	31.3	30.7	4.1	7.9		
Libya	4.2	5.6	21.1	21.0	3.6	6.5		
Morocco	8.1		29.9		2.6		5.3	
Tunisia	8.1	3.3	30.9	9.0	4.5	3.4		
Western Sahara								
Sub-Saharan Africa								
Angola		15.6		29.2		8.2		
Benin		20.2		44.7		8.4		
Botswana		11.2		31.4		7.2		
Burkina Faso	29.6	26.0	40.7	35.1	15.5	11.3		
Burundi		35.2		57.7		9.0		
Cameroon	18.0	16.6	36.3	36.4	4.5	7.3		
Cape Verde	11.8		21.4		6.9			
Central African Republic	23.3		40.2		9.2			
Chad								
Comoros	16.2		39.2		5.8			
Congo		11.8		31.2		8.0		
Côte d'Ivoire	20.9	29.4	31.5	39.0	11.2	14.0		
Democratic Republic of the Congo	30.7	28.2	51.0	45.8	11.4	14.0		
Djibouti		29.6		32.6		26.0		
Equatorial Guinea								
Eritrea	36.9		69.6		11.8			
Ethiopia		34.6		50.7		12.3		
Gabon								
Gambia		15.8		27.6		7.4		
Ghana	25.1	14.3	33.5	28.6	14.6	8.7		
Guinea	21.2	20.8	35.3	40.0	14.0	8.3		
Guinea-Bissau		17.2		28.1		5.6		
Kenya	19.8	16.4	39.8	35.2	9.4	7.0		
Lesotho	13.8	13.5	39.2	39.0	3.2	3.9		
Liberia		20.4		39.4		7.8		
Madagascar	40.9		54.1	49.2	16.4		19.2	
Malawi	26.5	13.8	53.8	47.8	8.5	4.1		
Malí		27.9		38.5		15.3		
Mauritania	43.3	15.9	54.8	23.0	17.4	8.1		
Mauritius	13.0		13.6		15.7			
Mayotte								
Mozambique	23.9	18.3	59.9	43.7	9.6	4.2		
Namibia	21.5	17.5	35.7	29.6	9.6	7.5		
Niger	41.0	39.9	48.3	54.8	18.9	12.4		
Nigeria	35.1	26.7	43.8	41.0	20.6	14.4		
Réunion								
Rwanda	24.3	18.0	56.8	51.7	5.0	4.8		
Saint Helena, Ascension and Tristan da Cunha								
Sao Tome and Principe		14.4		31.6		11.2		
Senegal	21.9	14.5	33.7	20.1	9.4	8.7		
Seychelles								
Sierra Leone	25.4	21.3	40.9	37.4	10.2	10.5		
Somalia		32.8		42.1		13.2		
South Africa	8.0	8.7	28.7	23.9	10.3	4.7	8.6	
South Sudan								
Sudan								
Sudan (former)	31.8	31.7	38.6	37.9	18.8	21.0		
Swaziland		7.3		40.4		1.1		
Togo		20.5		26.9		6.0		
Uganda	21.5	16.4	45.0	38.7	7.0	6.3		
United Republic of Tanzania	25.1	16.2	49.7	42.5	7.9	4.9		
Zambia	21.2	14.9	46.4	45.8	6.3	5.6		
Zimbabwe	11.7	14.0	28.9	35.8	6.3	7.3	9.9	

TABLE 13: Outcomes: Utilization (continued)

	Utilization							
	children under 5 years of age				adults			
	underweight		stunted		wasted		underweight	
	% 1990-95*	% 2005-11*	% 1990-95*	% 2005-11*	% 1990-95*	% 2005-11*	% 1990-2011*	% 1990-2011*
Asia								
Caucasus and Central Asia								
Armenia		4.2		18.2		5.5		
Azerbaijan		8.4		26.8		6.8		
Georgia		1.1		11.3		1.6		
Kazakhstan	6.7	4.9	19.0	17.5	7.3	3.7		
Kyrgyzstan		2.7		18.1	8.5	3.4	3.7	
Tajikistan		15.0		39.2		6.7		
Turkmenistan								
Uzbekistan		4.4		19.6		4.5		
East Asia								
China								
Democratic People's Republic of Korea		18.8		32.4		5.2		
Mongolia	10.8	5.3	32.5	27.5	2.3	2.7	4.9	
Republic of Korea							4.7	
East Asia (excluding China)								
South Asia								
Afghanistan								
Bangladesh	58.0	41.3	68.5	43.2	15.7	17.5		
Bhutan		12.7		33.5		5.9		
India	50.7	43.5	57.1	47.9	21.1	20.0	32.9	
Iran (Islamic Republic of)	13.8		24.4		8.1		5.9	
Maldives	39.0	17.8	33.0	20.3	18.9	10.2		
Nepal	44.1	38.8	64.5	49.3	7.5	12.7		
Pakistan	34.2		42.7		17.2		31.2	
Sri Lanka		21.6		19.2		11.8		
South Asia (excluding India)								
South East Asia								
Brunei Darussalam								
Cambodia		29.0		40.9		10.8		
Indonesia	27.4	17.5		35.6		14.8		
Lao People's Democratic Republic	35.9	31.6	52.9	47.6	12.3	7.3	13.5	
Malaysia	17.7	12.9		17.2			9.6	
Myanmar	38.7		50.4		9.4			
Philippines	26.3	20.7	38.9	32.3	9.1	6.9	12.3	
Singapore							9.2	
Thailand	15.4	7.0	18.1	15.7	6.7	4.7	19.2	
Timor-Leste		45.3		57.7		18.9		
Viet Nam	40.6	20.2	52.5	30.5	13.5	9.7	26.5	
West Asia								
Bahrain	7.6		13.6		6.6			
Iraq	10.4	7.1	27.6	27.5	4.4	5.8		
Jordan	4.8	1.9	20.5	8.3	3.8	1.6	3.0	
Kuwait	9.2	1.7	14.9	3.8	12.0	1.8	2.5	
Lebanon								
Occupied Palestinian Territory		2.2		11.8		1.8		
Oman	10.0	8.6	21.4	9.8	7.0	7.1		
Qatar	4.8		11.6		2.1			
Saudi Arabia	13.5	5.3	21.4	9.3	2.9	11.8	7.0	
Syrian Arab Republic	11.3	10.1	26.5	27.5	10.4	11.5		
Turkey	9.0		24.1		3.8		3.5	
United Arab Emirates								
Yemen	29.6		52.4		14.3			

TABLE 13: Outcomes: Utilization (continued)

	Utilization							
	children under 5 years of age				adults			
	underweight		stunted		wasted		underweight	
	% 1990-95*	% 2005-11*	% 1990-95*	% 2005-11*	% 1990-95*	% 2005-11*	% 1990-95*	% 2005-11*
Latin America and the Caribbean								
Caribbean								
Anguilla								
Antigua and Barbuda								
Aruba								
Bahamas								
Barbados								3.2
British Virgin Islands			34.6					
Cayman Islands								
Cuba								
Dominica								
Dominican Republic	8.4	3.4	21.2	10.1	2.2	2.3		
Grenada								
Guadeloupe								
Haiti	24.0	18.9	37.2	29.7	9.4	10.3		
Jamaica	4.0	1.9	9.5	5.7	4.5	2.7		
Martinique								
Montserrat								
Netherlands Antilles								
Puerto Rico								
Saint Kitts and Nevis								
Saint Lucia								
Saint Vincent and the Grenadines								
Trinidad and Tobago								
Turks and Caicos Islands								
United States Virgin Islands								
Latin America								
Argentina	1.7	2.3	7.1	8.2	1.6	1.2		
Belize	5.4	4.9		22.2		1.9		
Bolivia (Plurinational State of)	12.6	4.5	35.2	27.2	5.3	1.4		
Brazil		2.2		7.1		1.6	4.0	
Chile	0.8	0.5	3.9	2.0	0.5	0.3	0.8	
Colombia	6.3	3.4	19.7	12.7	1.7	0.9	3.9	
Costa Rica	1.9	1.1		5.6		1.0		
Ecuador								
El Salvador	7.2	6.6	29.5	20.6	1.4	1.6		
Falkland Islands (Malvinas)								
French Guiana								
Guatemala	21.7	13.0	55.4	48.0	3.8	1.1		
Guyana	16.1	10.8		18.2		8.3		
Honduras	16.1	8.6	45.7	29.9	2.7	1.4		
Mexico		3.4		15.5		2.0		
Nicaragua	9.6	5.7	29.6	23.0	2.4	1.5		
Panama						1.0		
Paraguay	2.8	3.4	18.3	17.5	0.6	1.1		
Peru	8.8	4.5	37.3	28.2	1.9	0.8		
Suriname		7.5		10.7		4.9		
Uruguay								
Venezuela (Bolivarian Republic of)	4.1	3.7	18.9	15.6	3.8	5.0		
Oceania								
American Samoa						0.1		
Cook Islands		11.8						
Fiji	6.9		4.3		9.8		6.1	
French Polynesia								
Guam								
Kiribati						0.5		
Marshall Islands								
Micronesia (Federated States of)								
Nauru								
New Caledonia								
Niue								
Northern Mariana Islands								
Palau								
Papua New Guinea		18.1		43.9		4.4		
Samoa								
Solomon Islands		11.5		32.8		4.3		
Tokelau								
Tonga								
Tuvalu		1.6		10.0		3.3		
Vanuatu		11.7		25.9		5.9	1.9	
Wallis and Futuna Islands								

TABLE 13: Outcomes: Utilization (continued)

	Utilization							
	children under 5 years of age				adults			
	underweight		stunted		wasted		underweight	
	% 1990-95*	% 2005-11*	% 1990-95*	% 2005-11*	% 1990-95*	% 2005-11*	% 1990-2011*	% 2005-11*
Developed countries								
Albania		6.3		23.1		9.4		
Andorra								
Australia							1.0	
Austria							2.0	
Belarus		1.3		4.5		2.2		
Belgium							3.8	
Bermuda								
Bosnia and Herzegovina		1.6		11.8		4.0		
Bulgaria							3.9	
Canada							2.6	
Croatia	0.5	1.0	1.6	0.6	1.7		0.2	
Cyprus							4.3	
Czech Republic	0.9		3.1		2.8		2.4	
Denmark							2.2	
Estonia							4.6	
Faroe Islands								
Finland							2.4	
France							4.9	
Germany		1.1		1.3		1.0		
Gibraltar								
Greece								
Greenland								
Holy See								
Hungary							2.0	
Iceland							2.3	
Ireland							0.8	
Israel								
Italy							3.4	
Japan							11.5	
Latvia							3.5	
Liechtenstein								
Lithuania							2.4	
Luxembourg								
Malta							2.6	
Monaco								
Montenegro		2.2		7.9		4.2		
Netherlands								
New Zealand							1.3	
Norway							5.0	
Poland							2.2	
Portugal							2.2	
Republic of Moldova		3.2		11.3		5.8		
Romania	5.0		11.2		3.3		3.0	
Russian Federation								
Saint Pierre and Miquelon								
San Marino								
Serbia		1.8		8.1		4.5		
Serbia and Montenegro							4.7	
Slovakia								
Slovenia								
Spain							1.8	
Sweden							2.0	
Switzerland							3.5	
The former Yugoslav Republic of Macedonia		1.8		11.5		3.4		
Ukraine								
United Kingdom							5.1	
United States of America	0.9		3.2		0.7		2.4	
Least developed countries								
Landlocked developing countries								
Small island developing States								
Low income economies								
Lower-middle-income economies								
Low-income food-deficit countries								

TABLE 14: Poverty

	Headcount ratio in \$ per day (PPP)		Poverty gap in \$ per day (PPP)				GINI coefficient	Income share	
	1.25 % 2005-11*	2 % 2005-11*	1.25 % 2005-11*	2 % 2005-11*	at national poverty line	at rural poverty line		held by highest 20%	held by lowest 20%
					2005-11*	2005-11*	index 2005-11*	2005-11*	2005-11*
World									
Africa									
Eastern Africa									
Burundi	81.3	93.5	36.4	56.1	23.4	24.2	33.3	42.8	9.0
Comoros									
Djibouti									
Eritrea									
Ethiopia	39.0	77.6	9.6	28.9	8.3	8.5	29.8	39.4	9.3
Kenya	43.4	67.2	16.9	31.8	16.3	17.5	47.7	53.2	4.8
Madagascar	81.3	92.6	43.3	60.1	26.8	28.9	44.1	50.1	5.4
Malawi									
Mauritius									
Mayotte									
Mozambique	59.6	81.8	25.1	42.9	21.2	22.2	45.7	51.5	5.2
Réunion									
Rwanda	63.2	82.4	26.6	44.6	14.8	26.0	50.8	56.8	5.2
Seychelles	0.2	1.8	0.1	0.3			65.8	69.6	3.7
Somalia									
Uganda	38.0	64.7	12.2	27.4	6.8	7.6	44.3	50.7	5.8
United Republic of Tanzania	67.9	87.9	28.1	47.5	9.9	11.0	37.6	44.8	6.8
Zambia	68.5	82.5	37.0	51.8	28.5	38.8	54.6	59.4	3.6
Zimbabwe									
Middle Africa									
Angola									
Cameroon	9.6	30.4	1.2	8.2	12.3	17.5	38.9	46.2	6.7
Central African Republic	62.8	80.1	31.3	46.8	33.1	35.0	56.3	60.6	3.4
Chad									
Congo	54.1	74.4	22.8	38.8	18.9	20.6	47.3	53.1	5.0
Democratic Republic of the Congo	87.7	95.2	52.8	67.6	32.2	34.9	44.4	50.6	5.5
Equatorial Guinea					45.3	49.8			
Gabon	4.8	19.6	0.9	5.0	10.0	16.0	41.5	48.2	6.2
Sao Tome and Principe					24.8				
Northern Africa									
Algeria									
Egypt	1.7	15.4	0.4	2.8	3.6		30.8	40.3	9.2
Libya									
Morocco	2.5	14.0	0.5	3.2			40.9	47.9	6.5
South Sudan					23.7	26.5	45.5		
Sudan	19.8	44.1	5.5	15.4	16.2	21.3	35.3	42.4	6.8
Sudan (former)									
Tunisia	1.4	8.1	0.3	1.8			41.4	47.9	5.9
Western Sahara									
Southern Africa									
Botswana									
Lesotho									
Namibia									
South Africa	13.8	31.3	2.3	10.2	7.0		63.1	68.2	2.7
Swaziland	40.6	60.4	16.0	29.3			51.5	56.6	4.0
Western Africa									
Benin									
Burkina Faso	44.6	72.6	14.7	31.7	15.1	17.4	39.8	47.0	6.7
Côte d'Ivoire	23.8	46.3	7.5	17.8	15.3	20.3	41.5	47.6	5.6
Cape Verde					8.1	14.3			
Gambia									
Ghana	28.6	51.8	9.9	21.3	9.6	13.5	42.8	48.5	5.2
Guinea	43.3	69.6	15.0	31.0	17.6	22.0	39.4	46.2	6.3
Guinea-Bissau									
Liberia	83.8	94.9	40.9	59.6	24.4	26.3	38.2	45.0	6.4
Mali	50.4	78.7	16.4	35.2	13.2		33.0	41.3	8.0
Mauritania	23.4	47.7	6.8	17.7	14.5	22.3	40.5	47.0	6.0
Niger	43.6	75.2	12.4	30.8	19.6	21.2	34.5	43.1	8.1
Nigeria	68.0	84.5	33.7	50.2			48.8	54.0	4.4
Saint Helena, Ascension and Tristan da Cunha									
Senegal	33.5	60.4	10.8	24.7	16.4	21.5	39.2	45.9	6.2
Sierra Leone									
Togo	38.7	69.3	11.4	27.9	22.9	29.3	34.4	42.4	7.6

TABLE 14: Poverty (continued)

	Headcount ratio in \$ per day (PPP)		Poverty gap				GINI coefficient	Income share	
	1.25 2005-11*	2 2005-11*	1.25 2005-11*	2 2005-11*	at national poverty line	at rural poverty line		held by highest 20%	held by lowest 20%
	%	%	%	%	2005-11*	2005-11*	index	2005-11*	2005-11*
Americas									
Latin America and the Caribbean									
Anguilla									
Antigua and Barbuda									
Argentina	0.9	1.9	0.6	0.9			44.5	49.4	4.4
Aruba									
Bahamas									
Barbados									
Belize									
Bolivia (Plurinational State of)	15.6	24.9	8.6	13.1			56.3	59.3	2.1
Bonaire, Sint Eustatius and Saba									
Brazil	6.1	10.8	3.6	5.4			54.7	58.6	2.8
British Virgin Islands									
Cayman Islands									
Chile	1.4	2.7	0.7	1.2			52.1	57.7	4.3
Colombia	8.2	15.8	3.8	6.8			55.9	60.1	3.0
Costa Rica	3.1	6.0	1.8	2.7			50.7	55.9	3.8
Cuba									
Curaçao									
Dominica									
Dominican Republic	2.2	9.9	0.5	2.4			47.2	52.8	4.7
Ecuador	4.6	10.6	2.1	4.1			49.3	53.8	4.3
El Salvador	9.0	16.9	4.4	7.6			48.3	53.1	3.7
Falkland Islands (Malvinas)									
French Guiana									
Grenada									
Guadeloupe									
Guatemala	13.5	26.3	4.7	10.5			55.9	60.3	3.1
Guyana									
Haiti									
Honduras	17.9	29.8	9.3	14.8			57.0	59.9	2.0
Jamaica									
Martinique									
Mexico	1.1	5.2	0.3	1.3			48.3	53.7	4.7
Montserrat									
Nicaragua	11.9	31.7	2.4	9.6			40.5	47.2	6.2
Panama	6.6	13.8	2.1	5.1			51.9	56.4	3.3
Paraguay	7.2	13.2	3.0	5.7			52.4	56.4	3.3
Peru	4.9	12.7	1.3	4.1			48.1	52.6	3.9
Puerto Rico									
Saint Barthélemy									
Saint Kitts and Nevis									
Saint Lucia									
Saint-Martin (French Part)									
Saint Vincent and the Grenadines									
Sint Maarten (Dutch Part)									
Suriname									
Trinidad and Tobago									
Turks and Caicos Islands									
United States Virgin Islands									
Uruguay	0.2	1.2	0.1	0.3			45.3	50.9	4.9
Venezuela (Bolivarian Republic of)	6.6	12.9	3.7	5.9			44.8	49.4	4.3
Northern America									
Bermuda									
Canada									
Greenland									
Saint Pierre and Miquelon									
United States of America									
Asia									
Central Asia									
Kazakhstan	0.1	1.1	0.0	0.2	1.3		29.0	38.4	9.1
Kyrgyzstan	6.2	21.7	1.4	6.0			36.2	43.4	6.8
Tajikistan	6.6	27.7	1.2	7.0			30.8	39.4	8.3
Turkmenistan									
Uzbekistan									

TABLE 14: Poverty (continued)

	Headcount ratio in \$ per day (PPP)		Poverty gap				GINI coefficient	Income share	
	1.25 % 2005-11*	2 % 2005-11*	1.25 % 2005-11*	2 % 2005-11*	at national poverty line 2005-11*	at rural poverty line 2005-11*		held by highest 20% 2005-11*	held by lowest 20% 2005-11*
Eastern Asia									
China, Hong Kong SAR									
China, Macao SAR									
China	13.1	29.8	3.2	10.1			42.5	47.9	5.0
Democratic People's Republic of Korea									
Japan									
Mongolia					10.1	13.4	36.5	44.0	7.1
Republic of Korea									
South-Eastern Asia									
Brunei Darussalam									
Cambodia	22.8	53.3	4.9	17.4	7.2	8.3	37.9	45.9	7.5
Indonesia	18.1	46.1	3.3	14.3	2.1	2.6	34.0	42.8	8.3
Lao People's Democratic Republic	33.9	66.0	8.9	24.8			36.7	44.8	7.6
Malaysia	0.0	2.3	0.0	0.2	0.8	1.8	46.2	51.5	4.5
Myanmar									
Philippines	18.4	41.5	3.7	13.8	7.2		43.0	49.7	6.0
Singapore									
Thailand	0.4	4.6	0.0	0.8			40.0	47.2	6.7
Timor-Leste	37.4	72.8	8.9	27.0			31.9	41.3	8.9
Viet Nam	16.9	43.4	3.8	13.5	3.5	4.6	35.6	43.4	7.4
Southern Asia									
Afghanistan					7.9	8.3	27.8	37.5	9.4
Bangladesh	43.2	76.5	11.2	30.4	6.5	7.3	32.1	41.4	8.9
Bhutan	10.2	29.8	1.8	8.5	6.1	8.1	38.1	45.1	6.6
India	32.7	68.7	7.5	24.4	6.2	6.8	33.4	42.4	8.6
Iran (Islamic Republic of)	1.4	8.0	0.3	1.8			38.3	45.2	6.4
Maldives									
Nepal	24.8	57.2	5.5	19.0	5.6	6.0	32.8	41.5	8.3
Pakistan	21.0	60.2	3.5	17.9			30.0	40.0	9.6
Sri Lanka	7.0	29.1	1.0	7.4	1.7	1.8	40.3	47.8	6.9
Western Asia									
Armenia	1.3	12.4	0.2	2.3	7.8	7.3	30.9	39.8	8.8
Azerbaijan	0.4	2.8	0.1	0.6			33.7	42.1	8.0
Bahrain									
Cyprus									
Georgia	15.3	32.2	4.6	11.7	7.2	9.2	41.3	47.1	5.3
Iraq	2.8	21.4	0.4	4.4	4.5	9.0	30.9	39.9	8.7
Israel									
Jordan	0.1	1.6	0.0	0.2	2.6		35.4	43.6	7.7
Kuwait									
Lebanon									
Occupied Palestinian Territory	0.0	0.3	0.0	0.1	4.9		35.5	43.4	7.4
Oman									
Qatar							41.1	52.0	3.9
Saudi Arabia									
Syrian Arab Republic									
Turkey	0.0	4.2	0.0	0.7			39.0	45.1	5.7
United Arab Emirates									
Yemen	17.5	46.6	4.2	14.8	8.9	10.6	37.7	45.3	7.2
Europe									
Eastern Europe									
Belarus	0.1	0.2	0.1	0.1			27.2	36.4	9.2
Bulgaria	0.0	0.4	0.0	0.0	3.0		28.2	36.7	8.5
Czech Republic									
Hungary	0.2	0.3	0.2	0.2			31.2	39.9	8.4
Poland	0.0	0.2	0.0	0.1			34.1	42.1	7.7
Republic of Moldova	0.4	4.3	0.1	0.7	4.5	6.5	33.0	41.1	7.8
Romania	0.4	1.7	0.2	0.5	3.2	5.3	30.0	38.3	8.3
Russian Federation	0.0	0.0	0.0	0.0	2.7	5.5	40.1	47.1	6.5
Slovakia	0.1	0.1	0.1	0.1			26.0	36.2	10.1
Ukraine	0.1	0.2	0.0	0.1	0.4	0.7	26.4	36.3	9.7
Northern Europe									
Åland Islands									
Channel Islands									
Denmark									
Estonia									
Faroe Islands									
Finland									
Guernsey									
Iceland									

TABLE 14: Poverty (continued)

	Headcount ratio in \$ per day (PPP)		Poverty gap				GINI coefficient	Income share	
	1.25 2005-11*	2 2005-11*	1.25 2005-11*	2 2005-11*	at national poverty line	at rural poverty line		held by highest 20%	held by lowest 20%
	%	%	%	%	2005-11*	2005-11*	index	2005-11*	2005-11*
Ireland									
Isle of Man									
Jersey									
Latvia	0.1	0.4	0.1	0.1			36.6	43.6	6.6
Lithuania	0.2	0.4	0.1	0.2			37.6	44.4	6.6
Norway									
Sark									
Svalbard and Jan Mayen Islands									
Sweden									
United Kingdom									
Southern Europe									
Albania	0.6	4.2	0.2	0.8	2.3	2.6	34.5	43.0	8.1
Andorra									
Bosnia and Herzegovina	0.0	0.2	0.0	0.0			36.2	43.2	6.6
Croatia	0.1	0.1	0.1	0.1			33.6	42.0	8.1
Gibraltar									
Greece									
Holy See									
Italy									
Malta									
Montenegro	0.1	0.3	0.1	0.1	1.1	1.7	30.0	38.8	8.5
Portugal									
San Marino									
Serbia	0.3	0.7	0.2	0.3	1.3	2.0	27.8	36.9	8.9
Slovenia									
Spain									
The former Yugoslav Republic of Macedonia	0.0	5.9	0.0	0.9	7.2	7.7	43.2	48.9	5.1
Western Europe									
Austria									
Belgium									
France									
Germany									
Liechtenstein									
Luxembourg									
Monaco									
Netherlands									
Switzerland									
Oceania									
Australia and New Zealand									
Australia									
New Zealand									
Norfolk Island									
Melanesia									
Fiji	5.9	22.9	1.1	6.0	10.1	14.8	42.8	49.6	6.2
New Caledonia									
Papua New Guinea									
Solomon Islands									
Vanuatu									
Micronesia									
Guam									
Kiribati									
Marshall Islands									
Micronesia (Federated States of)									
Nauru									
Northern Mariana Islands									
Palau									
Polynesia									
American Samoa									
Cook Islands									
French Polynesia									
Niue									
Pitcairn Islands									
Samoa									
Tokelau									
Tonga									
Tuvalu									
Wallis and Futuna Islands									

TABLE 15: Determinants: Availability

	Availability										
	average dietary supply adequacy index		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	
	1990-92	2007-09	1\$/ ^a cap 1990-92	1\$/ ^a cap 2007-09	% 1990-92	% 2007-09	g/cap/day 1990-92	g/cap/day 2007-09	g/cap/day 1990-92	g/cap/day 2007-09	
World	114	120	239	295	56	51	69	78	25	31	
Developing countries	108	116	180	254	64	56	61	72	15	24	
Africa	108	115	150	173	65	62	57	64	12	14	
North Africa	138	141	175	239	64	62	82	93	16	22	
Algeria	133	136	117	151	59	59	77	87	19	22	
Egypt	142	145	177	273	68	66	84	98	13	22	
Libya	144	136	172	174	49	51	81	80	27	27	
Morocco	135	138	188	229	64	61	84	89	15	20	
Tunisia	140	140	302	342	56	52	85	95	19	26	
Western Sahara											
Sub-Saharan Africa	100	109	144	160	65	62	51	58	11	13	
Angola	79	100	78	128	59	62	35	46	13	14	
Benin	107	120	148	196	74	72	54	63	8	11	
Botswana	100	92	159	122	48	49	68	60	29	23	
Burkina Faso	108	120	109	119	76	73	71	80	8	10	
Burundi	90	74	176	132	46	48	59	43	4	3	
Cameroon	93	109	152	211	59	57	49	62	11	11	
Cape Verde	112	113	70	89	55	47	62	73	20	32	
Central African Republic	88	96	168	205	57	54	41	50	15	18	
Chad	80	96	129	124	65	67	51	63	12	10	
Comoros	92	81	116	91	58	56	54	49	15	14	
Congo	92	97	82	94	60	61	46	45	19	16	
Côte d'Ivoire	119	126	248	258	66	68	53	54	15	12	
Democratic Republic of the Congo		115	59								
Djibouti	73	102	74	86	56	55	41	59	12	18	
Equatorial Guinea											
Eritrea		73		48		81		49		7	
Ethiopia		94		95		78		59		6	
Gabon	115	119	209	151	46	51	72	81	36	41	
Gambia	109	113	73	69	58	61	52	60	12	15	
Ghana	91	129	172	254	68	64	43	59	15	17	
Guinea	118	121	166	180	63	63	57	56	7	9	
Guinea-Bissau	107	112	141	180	69	64	46	45	9	8	
Kenya	95	96	148	148	55	53	55	58	17	17	
Lesotho	110	108	61	54	78	81	65	67	10	10	
Liberia	106	106	91	84	67	68	39	38	7	6	
Madagascar	105	101	196	160	75	79	52	49	16	11	
Malawi	90	110	75	159	73	71	51	61	5	5	
Mali	105	123	145	198	69	71	62	70	16	19	
Mauritania	119	129	163	136	55	49	79	86	33	36	
Mauritius	117	123	218	193	49	47	70	84	28	37	
Mayotte											
Mozambique	83	99	70	76	76	76	31	39	4	5	
Namibia	93	95	260	192	61	57	58	63	19	23	
Niger	97	117	133	183	76	62	56	78	12	18	
Nigeria	107	128	170	201	68	64	50	65	7	10	
Réunion											
Rwanda	89	98	168	169	49	51	44	53	4	5	
Saint Helena, Ascension and Tristan da Cunha											
Sao Tome and Principe	103	122	116	180	52	47	52	63	13	17	
Senegal	104	111	109	110	65	62	66	62	19	18	
Seychelles	105	113	78	51	47	48	71	79	36	36	
Sierra Leone	93	101	94	103	61	61	42	50	8	11	
Somalia			189	172							
South Africa	121	125	211	236	55	54	74	83	26	33	
South Sudan											
Sudan											
Sudan (former)	92	105	156	272	58	49	62	73	21	28	
Swaziland	110	101	288	239	56	58	58	59	17	18	
Togo	97	108	102	124	75	73	48	55	8	7	
Uganda	108	109	178	155	45	45	51	50	11	12	
United Republic of Tanzania	103	102	139	143	70	59	53	55	11	10	
Zambia	97	86	85	85	77	75	51	46	11	9	
Zimbabwe	90	96	95	96	64	59	50	54	9	12	

TABLE 15: Determinants: Availability (continued)

	Availability											
	average dietary supply adequacy index		value of food production per capita		share of energy supply derived from cereals, roots and tubers		average supply of protein					
	1990-92	2007-09	I\$/cap	I\$/cap	1990-92	2007-09	g/cap/day	1990-92	g/cap/day	2007-09	protein of animal origin g/cap/day	1990-92
Asia	107	115	167	246	67	57	61	73	14	23		
Caucasus and Central Asia	119		292		56		84		32			
Armenia	118		321		47		89		40			
Azerbaijan	126		230		64		88		25			
Georgia	110		162		54		75		28			
Kazakhstan	141		433		47		103		53			
Kyrgyzstan	117		281		55		84		34			
Tajikistan	95		141		64		55		12			
Turkmenistan	122		374		60		92		39			
Uzbekistan	111		274		59		77		26			
East Asia	107	121	173	325	69	54	67	91	16	36		
China												
Democratic People's Republic of Korea	99	88	176	143	63	68	73	57	15	10		
Mongolia	94	100	369	280	44	48	75	78	51	47		
Republic of Korea	124	130	184	217	55	44	81	91	28	41		
East Asia (excluding China)	116	115	188	195	57	50	78	79	25	32		
South Asia	106	106	139	170	67	61	56	59	10	13		
Afghanistan			138	106								
Bangladesh	101	109	94	127	85	82	46	55	5	9		
Bhutan												
India	104	104	137	165	66	60	55	57	9	11		
Iran (Islamic Republic of)	142	129	230	330	62	55	82	89	18	26		
Maldives	117	118	38	30	50	39	79	100	41	63		
Nepal	105	111	145	159	77	72	56	61	8	9		
Pakistan	109	110	156	191	55	48	58	62	19	25		
Sri Lanka	97	106	92	105	60	56	48	58	11	14		
South Asia (excluding India)	110	112	143	181	68	63	57	63	13	18		
South East Asia	100	116	179	263	68	62	50	64	14	22		
Brunei Darussalam	124	130	38	80	48	43	79	83	37	45		
Cambodia	94	107	113	224	84	75	45	62	9	18		
Indonesia	105	115	151	213	73	69	48	58	10	15		
Lao People's Democratic Republic	92	101	131	226	84	73	49	64	7	14		
Malaysia	121	125	332	451	45	48	67	78	37	41		
Myanmar			146	355								
Philippines	107	119	187	211	57	59	53	61	21	26		
Singapore												
Thailand	90	117	284	374	52	51	53	62	23	25		
Timor-Leste	92	100	130	107	74	71	55	55	20	14		
Viet Nam	89	115	153	271	78	62	45	72	10	27		
West Asia	142	135	267	246	55	52	80	79	22	24		
Bahrain												
Iraq			121	72								
Jordan	126	134	163	180	51	48	73	81	22	29		
Kuwait	91	152	22	77	48	42	60	115	27	60		
Lebanon	133	131	375	297	37	38	77	84	24	35		
Occupied Palestinian Territory	100			153	49	55	44	60	20	16		
Oman												
Qatar												
Saudi Arabia	129	131	144	130	49	53	79	85	29	31		
Syrian Arab Republic	134	141	260	303	51	47	73	84	19	25		
Turkey	164	155	422	428	54	50	109	105	27	28		
United Arab Emirates	137	126	130	109	34	43	105	105	55	49		
Yemen	103	100	58	69	67	62	55	56	10	12		

TABLE 15: Determinants: Availability (continued)

	Availability										
	average dietary supply adequacy index		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	
	1990-92	2007-09	I\$/cap 1990-92	I\$/cap 2007-09	% 1990-92	% 2007-09	g/cap/day 1990-92	g/cap/day 2007-09	g/cap/day 1990-92	g/cap/day 2007-09	
Latin America and the Caribbean	117	124	314	447	43	40	68	82	30	40	
Caribbean	101	111	239	188	41	43	55	65	22	25	
Anguilla											
Antigua and Barbuda	106	98	137	106	27	27	82	85	55	60	
Aruba											
Bahamas	110	111	71	89	29	27	78	88	50	57	
Barbados	123	118	197	177	34	30	87	91	51	54	
British Virgin Islands											
Cayman Islands											
Cuba	114	133	370	235	38	46	63	83	29	26	
Dominica	124	131	521	377	33	34	76	95	42	54	
Dominican Republic	94	106	211	243	35	34	48	58	21	29	
Grenada	111	101	204	121	30	24	68	74	39	48	
Guadeloupe											
Haiti	79	86	114	96	55	55	42	44	6	9	
Jamaica	113	117	210	192	41	37	68	78	33	40	
Martinique											
Montserrat											
Netherlands Antilles	110	126	6	8	39	37	84	89	51	53	
Puerto Rico											
Saint Kitts and Nevis	110	105	232	43	36	29	70	73	39	43	
Saint Lucia	113	112	445	142	36	33	79	88	46	54	
Saint Vincent and the Grenadines	102	119	320	185	37	35	61	86	33	48	
Trinidad and Tobago	114	112	107	113	41	36	62	67	25	31	
Turks and Caicos Islands											
United States Virgin Islands											
Latin America	118	125	320	464	43	40	69	83	31	41	
Argentina	127	123	691	968	35	32	95	95	61	63	
Belize	119	121	468	536	39	41	63	68	26	26	
Bolivia (Plurinational State of)	95	98	225	290	52	53	53	60	20	26	
Brazil	118	131	360	616	39	35	67	87	30	45	
Chile	111	121	320	445	48	45	72	90	32	47	
Colombia	108	116	242	284	41	41	56	67	27	34	
Costa Rica	123	119	477	540	37	34	68	75	34	39	
Ecuador	98	101	292	398	39	36	47	57	21	32	
El Salvador	111	115	126	155	57	47	59	71	14	25	
Falkland Islands (Malvinas)											
French Guiana											
Guatemala	112	107	180	261	59	51	59	61	11	19	
Guyana	103	117	263	423	56	52	62	75	24	31	
Honduras	111	123	197	216	51	45	55	67	16	27	
Mexico	135	135	241	290	48	44	81	91	30	42	
Nicaragua	85	112	133	219	49	51	46	65	13	19	
Panama	104	114	293	258	41	45	62	75	33	40	
Paraguay	108	111	457	599	44	43	70	66	37	29	
Peru	99	113	141	258	58	58	54	70	19	25	
Suriname	105	107	277	197	52	44	61	56	26	23	
Uruguay	112	119	625	1 005	39	48	82	82	50	39	
Venezuela (Bolivarian Republic of)	110	122	201	214	39	40	63	81	30	44	
Oceania	113	116	343	346	48	52	67	71	36	35	
American Samoa											
Cook Islands											
Fiji	119	129	315	250	46	48	68	76	31	31	
French Polynesia	122	122	104	99	38	34	89	100	53	67	
Guam											
Kiribati	121	127	188	274	43	40	65	73	31	38	
Marshall Islands											
Micronesia (Federated States of)											
Nauru											
New Caledonia	125	123	106	92	41	37	79	84	45	49	
Niue											
Northern Mariana Islands											
Palau											
Papua New Guinea			382	390							
Samoa	113	130	239	277	32	28	69	78	42	47	
Solomon Islands	103	113	215	231	65	68	52	55	20	17	
Tokelau											
Tonga											
Tuvalu											
Vanuatu	122	130	409	337	44	48	60	68	25	28	
Wallis and Futuna Islands											

TABLE 15: Determinants: Availability (continued)

	Availability									
	average dietary supply adequacy index		value of food production per capita		share of energy supply derived from cereals, roots and tubers		average supply of protein			
	1990-92	2007-09	I\$/cap	I\$/cap	1990-92	2007-09	g/cap/day	g/cap/day	1990-92	2007-09
Developed countries	131	136	452	471	34	32	99	104	58	61
Albania	109	117	178	315	58	41	80	97	28	49
Andorra										
Australia	126	130	916	980	25	26	106	106	71	69
Austria	141	150	482	492	24	27	103	107	67	64
Belarus		127		492		38		90		50
Belgium	146	147		508	26	26	66	100	62	61
Bermuda	117	108	35	32	22	24	98	83	67	57
Bosnia and Herzegovina		122		232		49		88		31
Bulgaria	124	111	465	310	43	40	91	77	41	37
Canada	123	137	617	740	26	28	96	104	58	58
Croatia		125		275		34	21	84	10	45
Cyprus	112	105	470	328	31	27	85	81	49	49
Czech Republic		128		360		31		92		54
Denmark	125	133	1 048	1 086	27	29	100	109	65	70
Estonia		124	410	329		35		93	71	52
Faroe Islands										
Finland	124	126	385	366	30	31	98	110	62	69
France	142	142	682	598	27	29	117	112	78	72
Germany	134	139	394	388	26	27	97	102	60	63
Gibraltar										
Greece	142	144	695	610	33	32	112	116	58	62
Greenland										
Holy See										
Hungary	144	137	626	535	31	29	98	89	54	46
Iceland	124	135	319	334	26	23	114	134	78	98
Ireland	147	145	1 208	970	33	34	113	110	69	65
Israel	150	156	378	377	37	35	114	128	57	72
Italy	142	144	523	502	34	33	111	111	60	61
Japan	121	114	166	144	42	41	96	90	55	51
Latvia		119		322		35		88		52
Liechtenstein										
Lithuania		140	522	489		37		124	52	77
Luxembourg	138	141		374	26	27	106	114	73	77
Malta	129	135	173	189	35	34	100	113	53	62
Monaco										
Montenegro		114		266		101		75		58
Netherlands	128	127	814	751	22	25	98	106	66	71
New Zealand	130	128	1 865	2 266	27	27	98	94	62	58
Norway	126	137	301	264	33	32	98	108	59	65
Poland	136	133	439	442	42	41	102	101	54	52
Portugal	136	143	399	381	37	33	103	118	55	73
Republic of Moldova		109		351		45		69		27
Romania	123	140	332	360	46	44	91	111	44	56
Russian Federation		130		284		43		100		52
Saint Pierre and Miquelon										
San Marino										
Serbia		111		379		67		80		36
Serbia and Montenegro										
Slovakia		111		283		36		74		36
Slovenia		129		339		38		102		58
Spain	133	129	619	661	29	27	106	108	63	67
Sweden	118	122	318	299	27	28	96	108	64	71
Switzerland	133	134	382	331	24	23	97	94	62	59
The former Yugoslav Republic of Macedonia		120		327		37		77		32
Ukraine		130		389		42		89		43
United Kingdom	131	138	301	259	28	32	93	104	54	59
United States of America	140	147	592	669	26	25	110	115	70	74
Least developed countries	97	103	117	145	73	67	49	56	9	12
Landlocked developing countries	98	105	175	177	65	64	59	64	15	15
Small island developing States	103	112	246	215	44	46	57	66	24	26
Low income economies	97	102	123	142	72	68	49	56	9	11
Lower-middle-income economies	107	111	159	195	65	60	56	61	12	16
Low-income food-deficit countries	104	108	142	170	67	63	54	58	10	13

