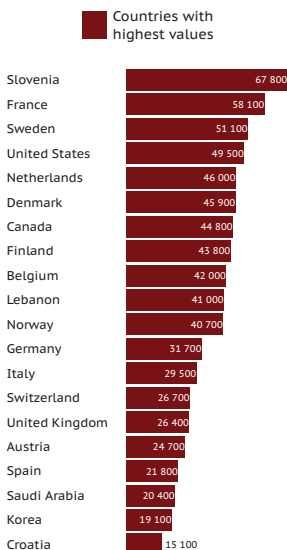


Aggregate agriculture

The growth of global agriculture's productive potential has so far exceeded population growth, resulting in a steady, albeit slow, increase in average per capita food availability. At the same time, hundreds of millions have suffered from hunger as they were not able to purchase enough food. The production increases necessary to feed a growing world population are unlikely to be triggered by market forces. Instead, they will require considerable public investment.

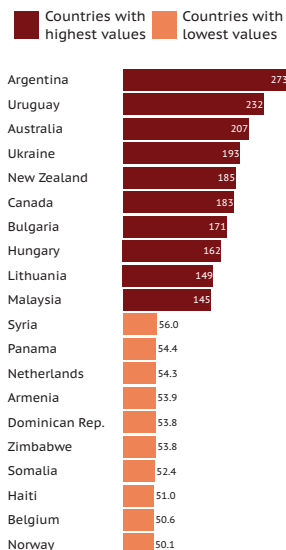
Agriculture value added per worker (US\$, 2010*)



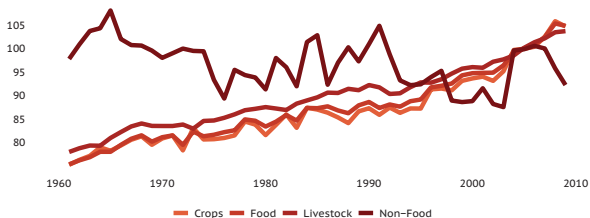
Per capita food production across regions

Region	kcal/cap/day, 2010
Developed regions	11 741
East Asia	5 888
Latin America & Caribbean	7 807
South Asia	2 962
Sub-Saharan Africa	3 041

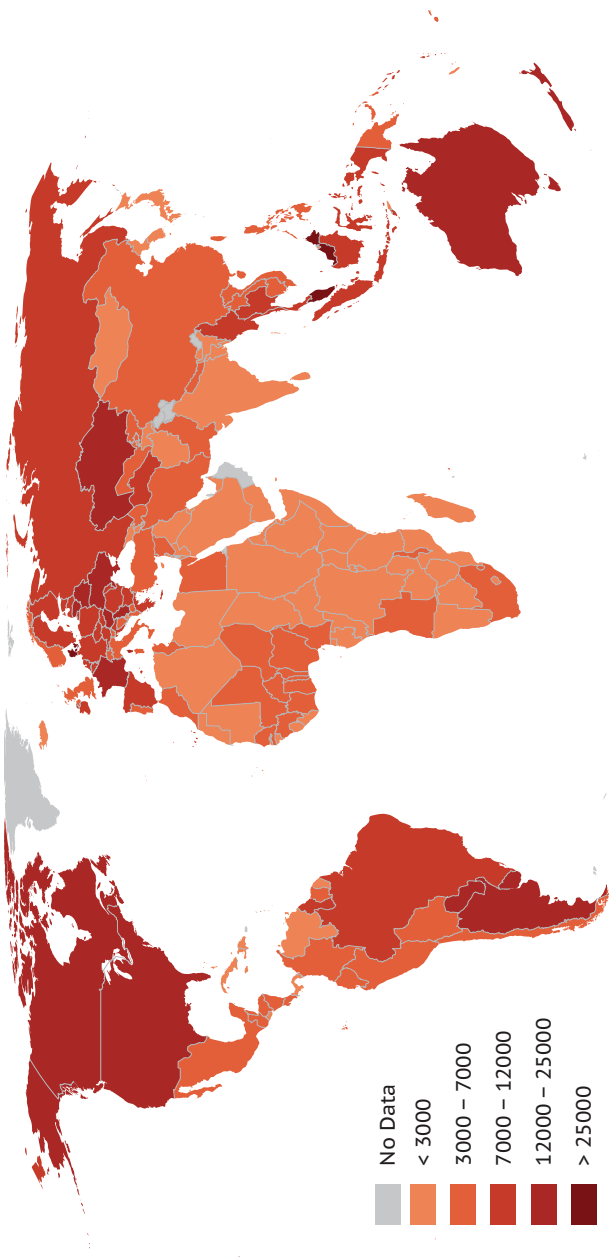
Caloric self-sufficiency ratio (% , 2010)



World indices of food, non-food, crops and livestock production over time (2004-06=100, 1961-2010)



Per capita food production (kcal/cap/day, 2010)



Sources of growth in crop production

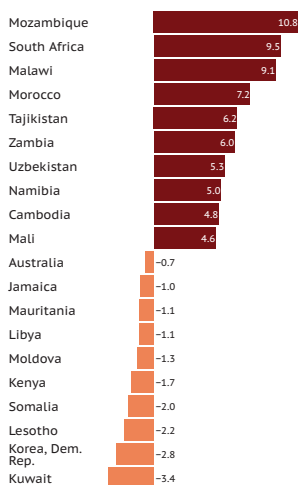
In the past 50 years or so, global crop production has expanded threefold. Crop production growth is on account of yield increase and/or expansion in the area allocated to crops, which - together with increases in cropping intensities, such as multiple cropping and/or shortening of fallow periods - leads to an expansion in the area harvested. Much of the increase in world crop production in the past is attributable to yield improvements, but yield growth rates are currently slowing.

Cereal yield growth

	1970-1990	1990-2010
	% p.a.	
Developed	2.04	0.43
East Asia	3.06	1.29
Latin America & Caribbean	1.56	3.19
South Asia	2.38	1.73
Sub-Saharan Africa	1.06	1.29

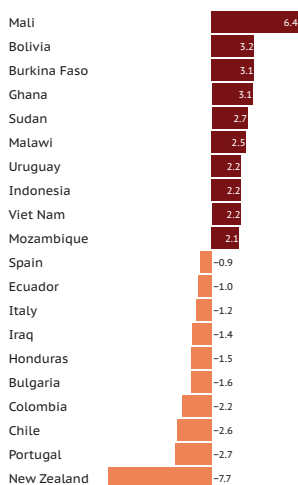
Cereal yield growth (% p.a., 1992-2010)

■ Countries with highest values
 ■ Countries with lowest values

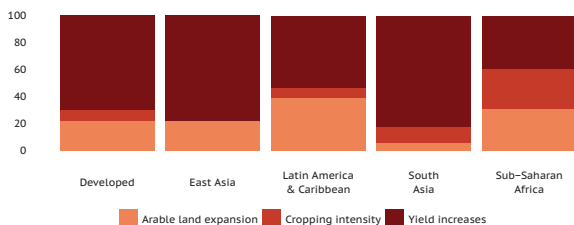


Cropland growth (% p.a., 1992-2011)

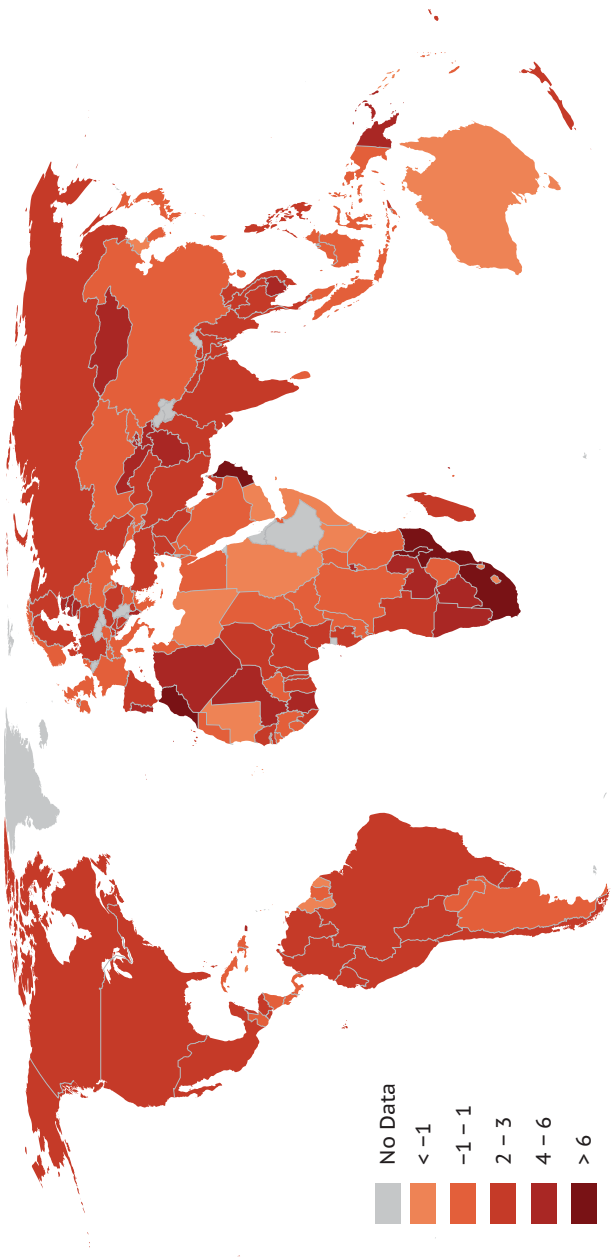
■ Countries with highest values
 ■ Countries with lowest values



Sources of crop growth (% p.a., 1961-2010)



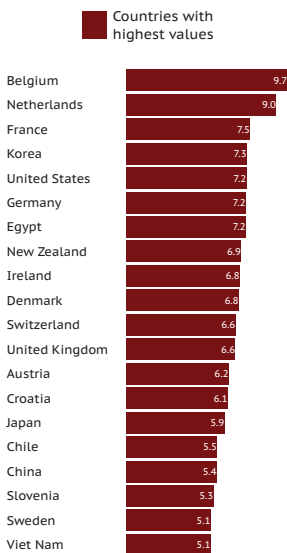
Cereal yield growth (% p.a., 1992-2011)



Trends in the crop sector

The food crop sector is changing. Although cereals continue to be the main source of food supplies, their production is growing at a slower speed, mostly reflecting changing diets, even though demand for industrial use has increased. The oilcrops sector has been particularly vibrant in recent decades. A similar development can be observed in the production of sugar, fruits and vegetables. Growth in the production of other food crops, such as pulses and roots and tubers, has remained relatively stagnant, but remains important for food security in several countries.

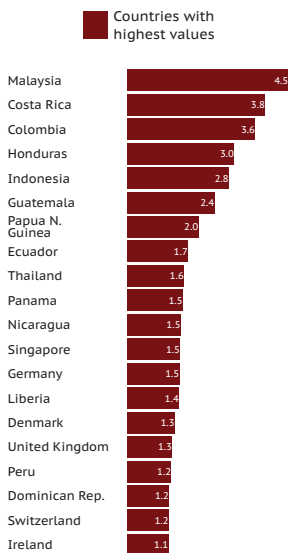
Cereal yields
(tonnes per ha, 2010)



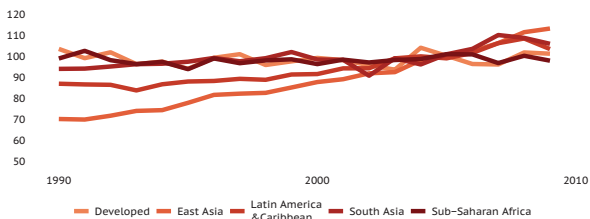
Cereal yields

tonnes per ha, 2010	
Developed regions	4.5
East Asia	4.9
Latin America & Caribbean	3.4
South Asia	2.7
Sub-Saharan Africa	1.3

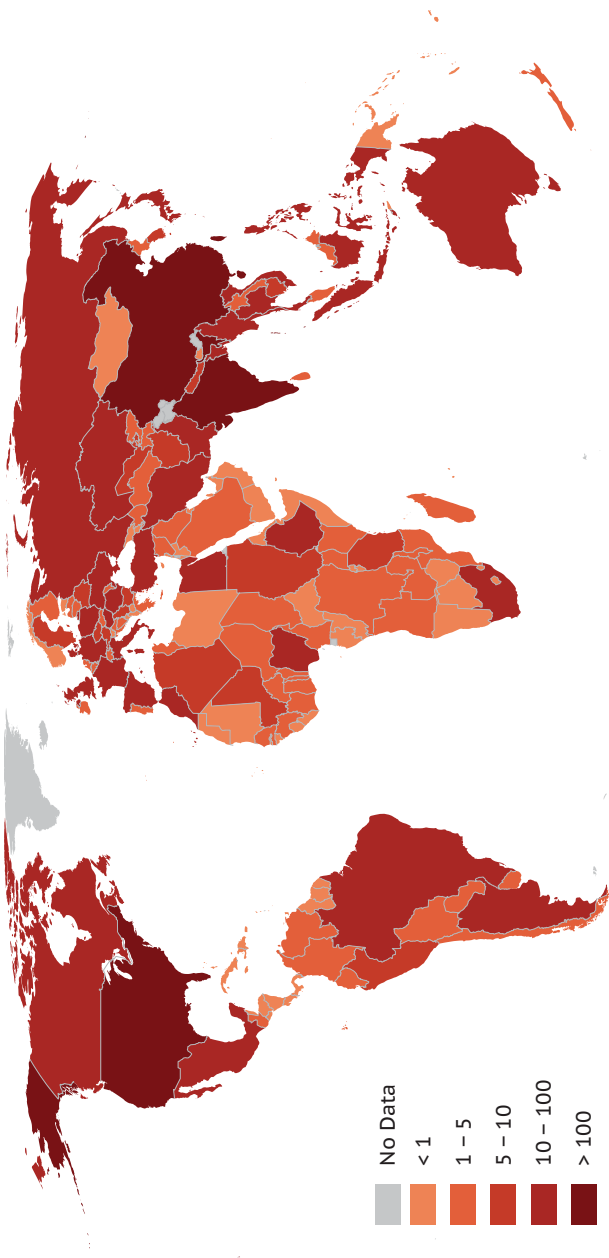
Oilcrop yields
(tonnes per ha, 2010)



Index of crop production (2004-06=100, 1961-2010)



Total cereal production (million tonnes, 2010)



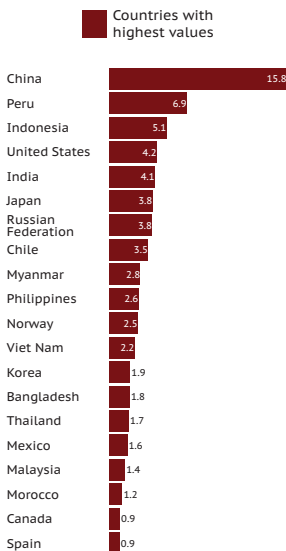
Trends in the fisheries sector

Fish is an important component in people's diets, providing about 2.9 billion people with almost 20 percent of their average per capita intake of animal protein. Capture fisheries continue to dominate world output, but aquaculture accounts for a growing percentage of total fish supply. Fishery sectors are particularly important in developing countries, in providing both food and livelihoods. Global marine capture production is less likely to increase, unless effective management plans are put in place to rebuild overfished stocks.

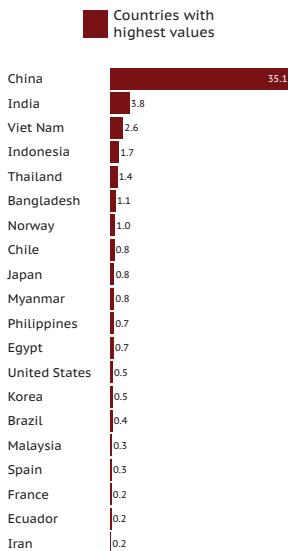
Fish production (capture and aquaculture)

	Capture	Aquaculture
	million tonnes, 2009	
Developed	23.1	4.1
East Asia	34.3	43.3
Latin America & Caribbean	15.3	1.9
South Asia	7.3	5.2
Sub-Saharan Africa	5.4	0.3

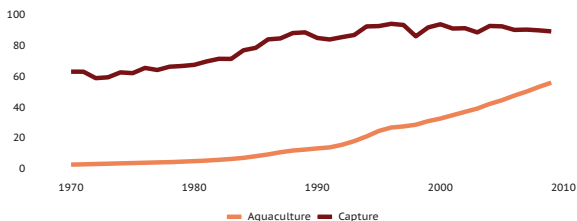
Fish production (capture) (million tonnes, 2009)



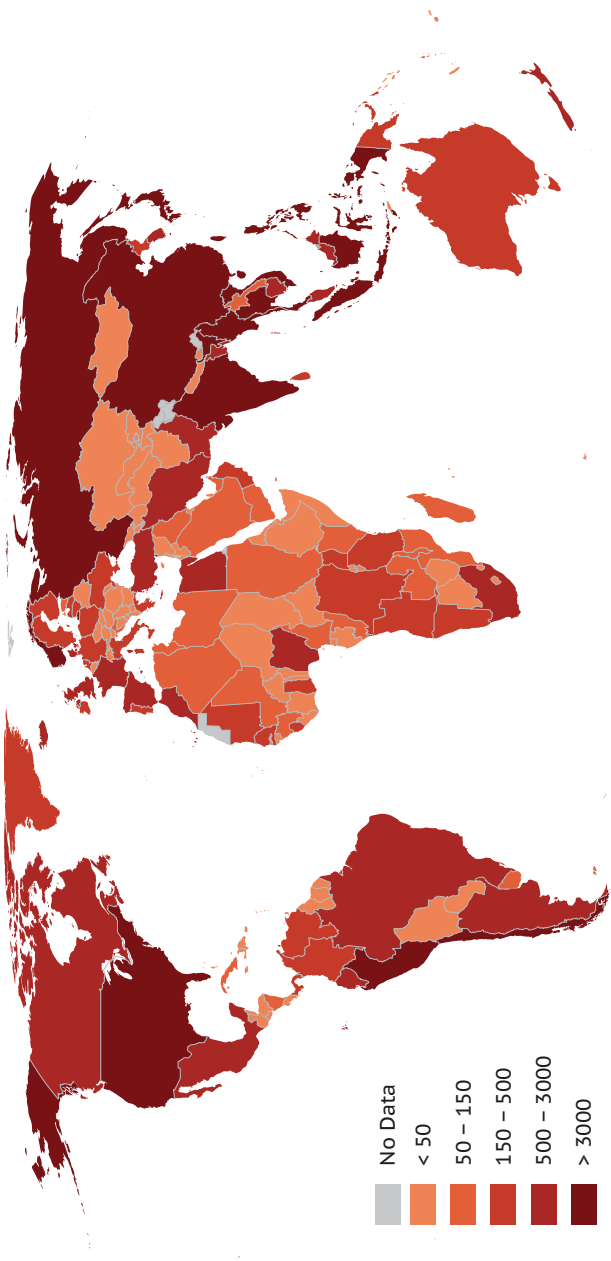
Fish production (aquaculture) (million tonnes, 2009)



Fish production (million tonnes, 1970-2009)



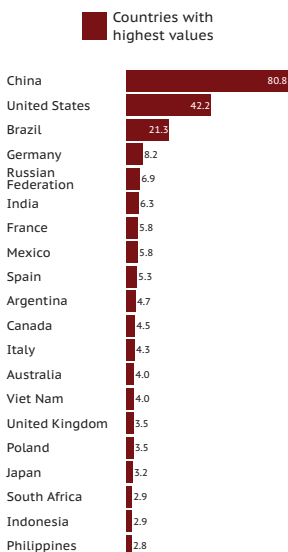
Fish production - capture and aquaculture (thousand tonnes, 2009)



Trends in the livestock sector

The world food economy is being increasingly driven by the shift of diets towards animal-based products such as meat, milk and dairy. This shift has been particularly strong in developing countries, with the poultry sector underpinning growth. Agriculture is being affected, not only through the growth of livestock production, but also through the linkages to other sectors that supply feedingstuffs, such as crops and fisheries. Globally, livestock production is the largest user of agricultural land, raising environmental concerns including the impact of livestock production systems on climate change.

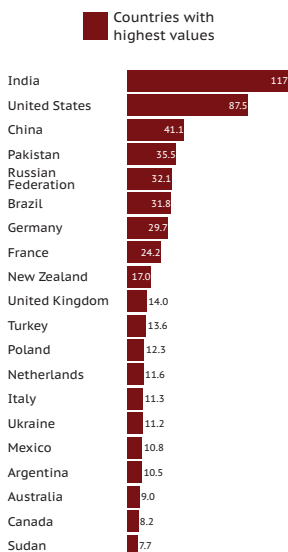
Meat producing countries (million tonnes, 2010)



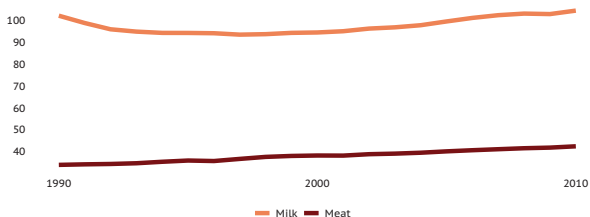
World meat production growth

	%, 1961-2010
Poultry	3.63
Pork	1.96
Beef	1.07
Sheep	1.81

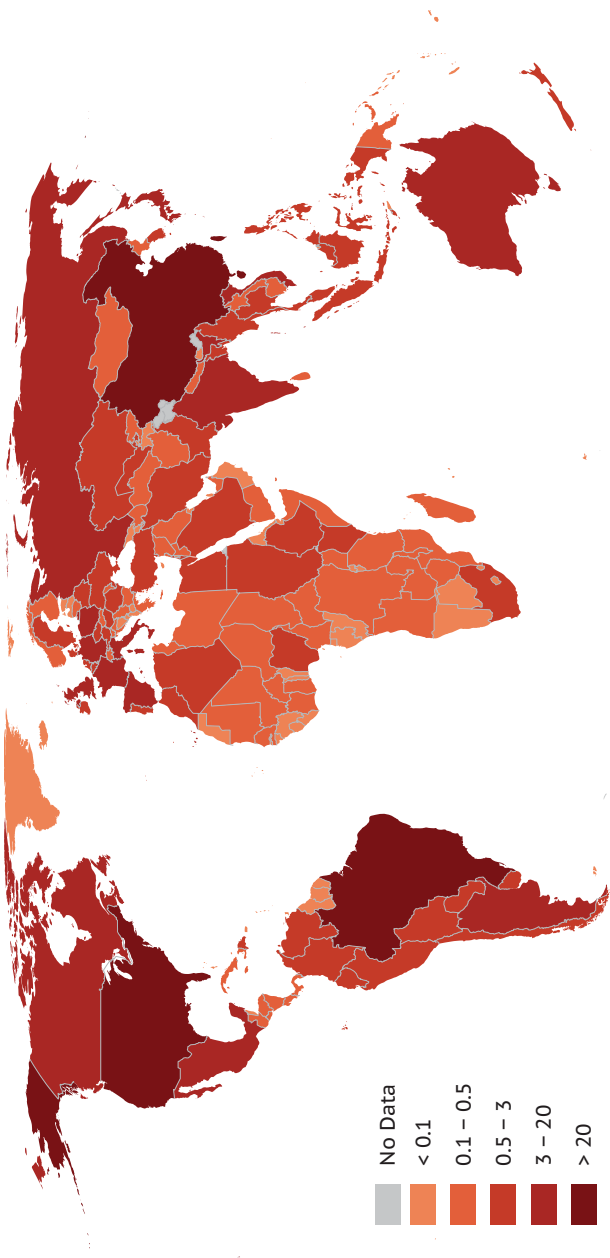
Milk producing countries (million tonnes, 2010)



World per capita meat and milk production (kg, 1990-2010)



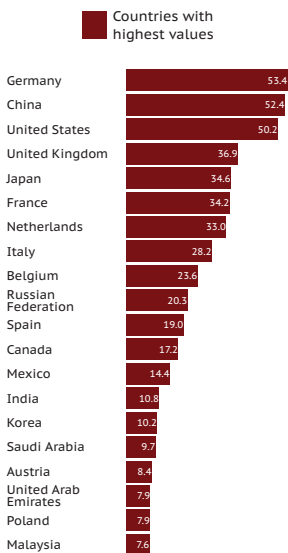
Meat production (million tonnes, 2010)



Trade

Agricultural trade has become increasingly important to satisfy countries' food demand. Over the past 50 years, international trade flows have increased fivefold and now stand at unprecedented levels. Despite their assumed comparative advantage in agriculture, many low-income developing countries have become net importers of food. While the trade balance does not by itself indicate a negative development, it does show that several countries are now dependent on the vagaries of potentially volatile international markets for their food security.

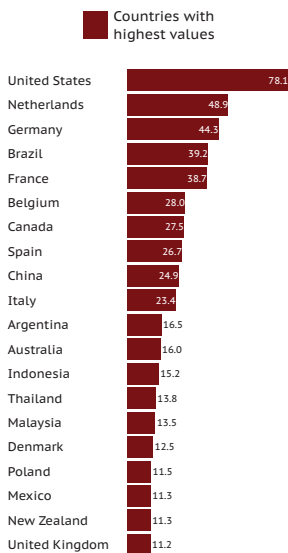
Top food importing countries (billion dollars, 2009)



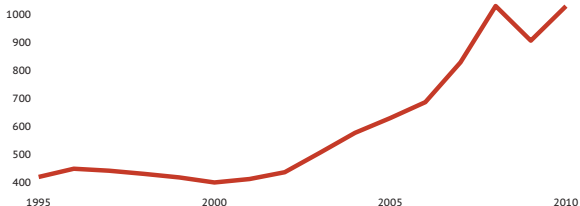
Net food trade (exports-imports) balance by region

billion dollars, 2009	
Developed regions	-1 201
East Asia	-14 895
Latin America & Caribbean	50 149
South Asia	-12 735
Sub-Saharan Africa	-9 234

Top food exporting countries (billion dollars, 2009)



World food trade (billion dollars, 1995-2010)



Net trade balance in food (*billion dollars, 2009*)

