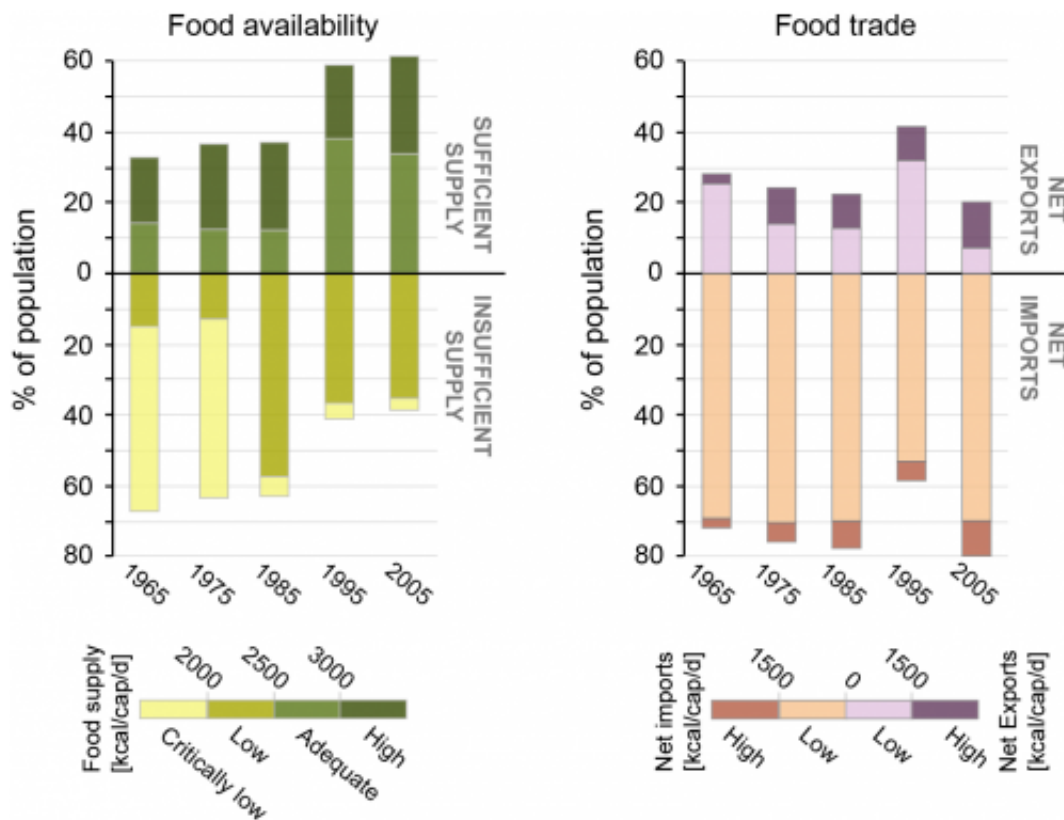


Availability of food increases as countries' dependence on food trade grows

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Graph about food availability and food trade

Sufficient food is available for increasing numbers of people, but at the same time, the dependence of countries on international trade in foodstuffs has increased considerably in 40 years. The proportion of the population who get enough food (more than 2 500 calories a day) has

nearly doubled to 61 per cent. Those living on a critically low food supply (less than 2 000 calories a day) have shrunk from 51 to three per cent.

The figures come out in a study made at Aalto University in Finland examining developments in [food availability](#) and food self-sufficiency in 1965–2005. Researchers of Aalto University examined the development of food availability in recent decades for the first time.

Food availability has improved especially in the Middle East and North Africa, Latin America, China, and Southeast Asia. Although food availability has increased on the global level, food self-sufficiency has remained relatively low.

"In the 1960s and 1970s, insufficient food production in a country amounted to [food shortage](#), but nowadays the production deficit is increasingly balanced through food imports," says Aalto University researcher Miina Porkka.

The proportion of people living in [countries](#) that are significant net importers of food has more than tripled during the period under examination. The countries of North Africa and the Middle East, for instance, have become increasingly dependent on imported food. In these countries, food availability has increased from low to a very high level, even though domestic food production has remained inadequate.

Brazil, on the other hand, has become one of the world's most important producers of food for export. In the 1960s, [food supply](#) in the country was still inadequate, but in the past decades Brazilian food production has grown exponentially and food consumption is now more than sufficient.

The study also examined dietary changes that have taken place in

different countries. The proportion of people consuming large amounts (more than 15 per cent of energy intake) of animal-based nutrition has increased from 33 per cent to more than 50 per cent. This together with over consumption of calories in many countries is putting an increased pressure on the planet's limited natural resources. At the same time, however, over a third of the world's population is still living with insufficient [food](#) supply.

This study was published in *PLOS ONE* journal. The study was conducted by the researchers from Aalto University in Finland and University of Bonn in Germany. The research was financed by Maa- ja vesiteknikan tuki ry., the Academy of Finland and the German Federal Ministry of Education and Research.

More information: Porkka M, Kummu M, Siebert S, Varis O (2013) From food insufficiency towards trade-dependency: a historical analysis of global food availability. *PLOS ONE* 8(12): e82714. [DOI: 10.1371/journal.pone.0082714](#)

Provided by Aalto University

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