

FOOD SECURITY TRENDS

FAO recently presented a framework document on the interrelationships between climate change and food security. This document clearly highlights the significant importance of climate change, but also makes it very clear that food security is the outcome of food system performance at global, national and local levels.” It requires a systems approach, as it is “directly or indirectly dependent on agricultural and forest ecosystem services, e.g., soil and water conservation, watershed management, combating land degradation, protection of coastal areas and mangroves, and biodiversity conservation”. Despite overall growth, global food security has not been achieved. The number of chronically hungry people in developing countries as a whole started to increase from the late 1990s, and by 2001–2003 the total number of undernourished people worldwide had increased to 854 million. The recent rise in malnutrition to some 963 million people can, at least partly, be attributed to rising food prices.

This increase has emerged despite political calls to halve the number of undernourished by 2015, made at the Global Food Summit in 1996 and later reiterated in the Millennium Development Goals in 2000.

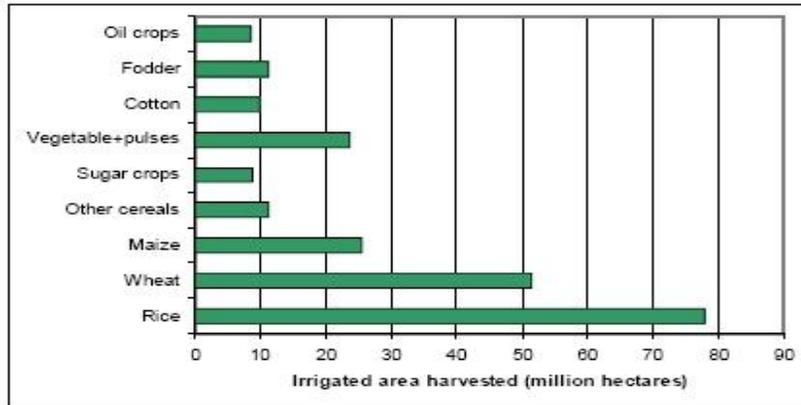


Figure 4: Distribution of crops under irrigation in the world (million ha). Source: FAO estimates based on data and information for 230 million hectares in 100 countries.

Notwithstanding such increases in absolute numbers, the total percentage of hungry people continues to decrease, but lately improvements have not managed to keep pace with the total population growth. In some regions, the negative trend has been steady over a longer time period. In southern and eastern Africa, the population of food-insecure people has more or less doubled over the last 25 years while per-capita cropped area has declined by 33%.

A range of factors or drivers needs to be considered when looking more carefully at statistics. Population growth continues to be highest in regions with, generally, the least capacity to increase their food production. Insufficient infrastructure (for irrigation, storage, transport) prevails in many countries and regions. Poverty, civil strife, the lack of capacity to implement necessary management changes or investments and lack of human and financial resources are other factors. The impact of higher food prices, which can lead to increased hunger even if food is available, is evident now.

But such price increases can be driven by higher costs for energy and other input resources, increased competition, market and trade failure or even market speculations.

FAO projects that a combination of future population growth and economic growth will push food requirements to double current levels by the 2050, including an increase of grain production from 2 billion to more than 4 billion tons. Current food production consumes more than 2500 billion m³ of water annually, or 75% of total freshwater consumption. This level of demand will have far reaching consequences for the allocation of water resources between all productive economic sectors.

The fact that more than 900 million people in developing countries currently remain undernourished can be attributed to lack of access to food rather than a lack of global capacity to produce enough food. Even though global food stocks are falling and recent agricultural growth has been very sluggish, the global capacity to produce (and waste) food has not been cited as a direct cause of malnutrition.

Nonetheless, a combination of limited food stocks and volatile energy costs clearly played an important role to push up consumer prices during 2008. Given that rising population and incomes drive demand for food in a predictable pattern, will climate change amplify further food supply shocks and will these shocks lead to shortfalls in production that impact global food security?

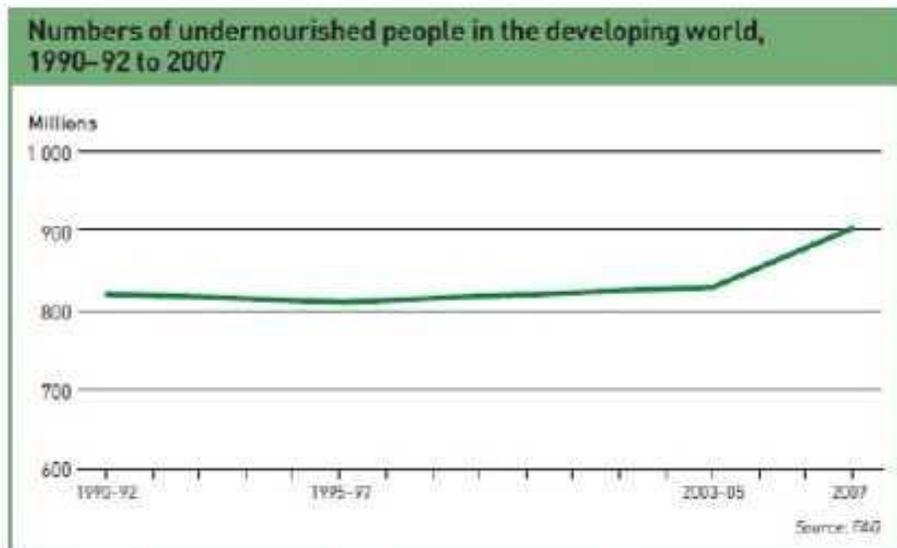


Figure 5: Numbers of undernourished people in the developing world, 1990-92 to 2007.

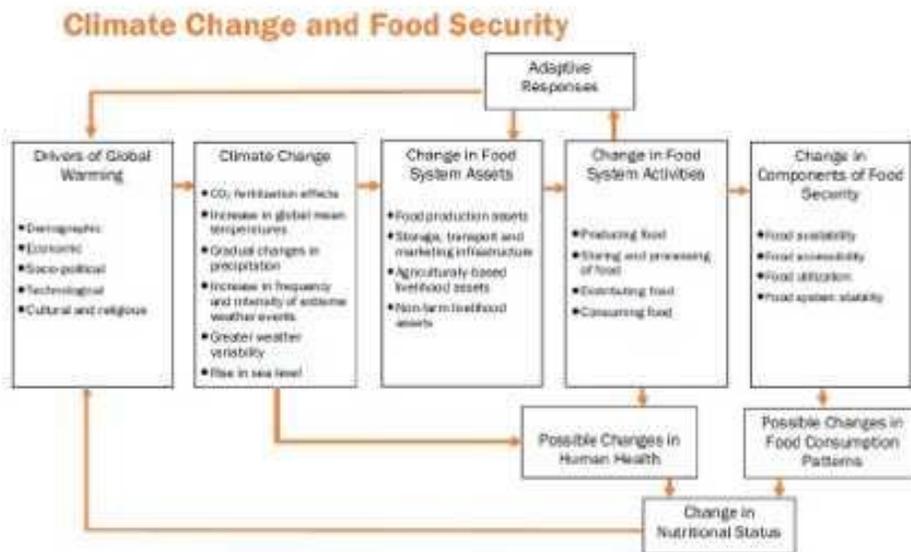


Figure 6: The interrelationships between climate change and food security. Source: FAO.

Source:

<http://www.iwawaterwiki.org/xwiki/bin/view/Articles/Producingenoughfoodinacimateinsecureworld>