

FOOD PRODUCTION TRENDS

Over the last century, global food production has managed to match population growth. Despite a three-fold global population increase since the turn of the 1900s, global production is still enough to sustain 6.5 billion people even if such indicators as the ratio of global cereal stocks to utilization are declining. Indeed, FAO's latest figures indicate that global cereal production in 2008, estimated at 2,245 million tonnes, enough to cover the projected needs for 2008/09, estimated at 2,198 million tonnes, and to allow a modest replenishment of world stocks. But with only 431 million tonnes, the cereal stocks-to-utilization ratio, at 19.6 percent, is at its lowest level in 30 years. It is also important to point out that the increase in cereal production in 2008 was accomplished by the developed countries who were able to respond rapidly to more attractive prices. Because of a greater elasticity of their supply relative to demand, they increased their cereal output by 11 percent. The developing countries, by contrast, only recorded an increase of 1.1 percent and if China, India and Brazil are excluded from this group, production in the rest of the developing world actually fell by 0.8 percent. Not surprisingly cereal imports bills for developing countries are estimated at 78 billion dollars in 2007/08 against 34 billion in 2005/06 reflecting a 127 percent increase over a period of two years.

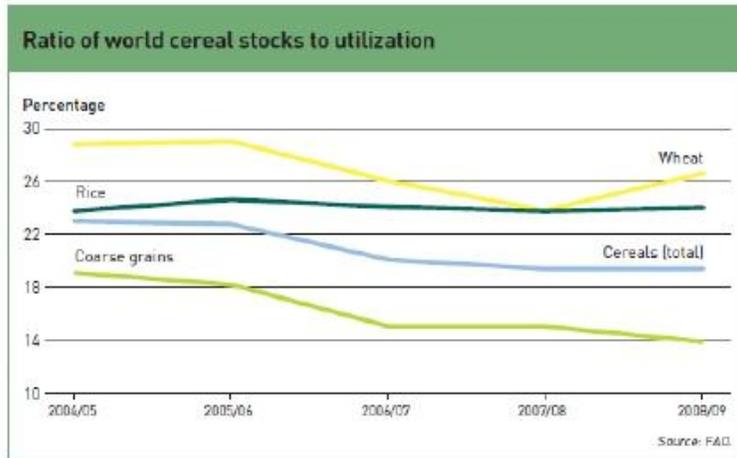


Figure 1: Ratio of world Cereal stocks to utilization. Source: FAO

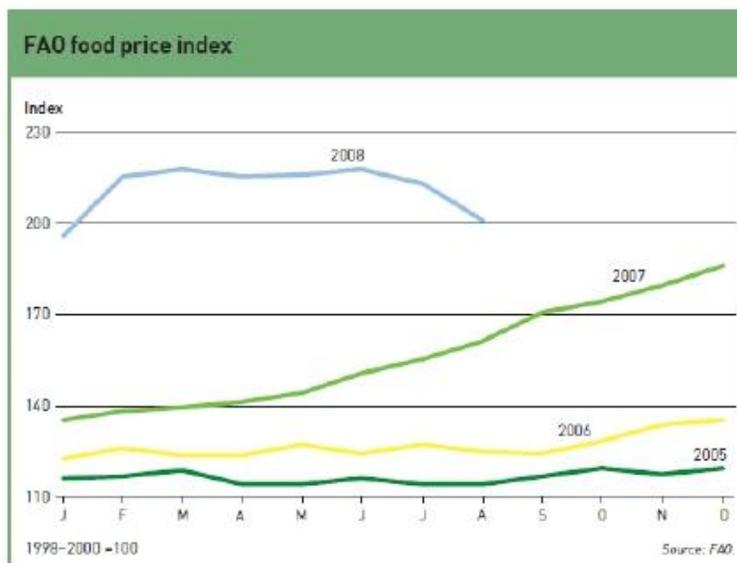
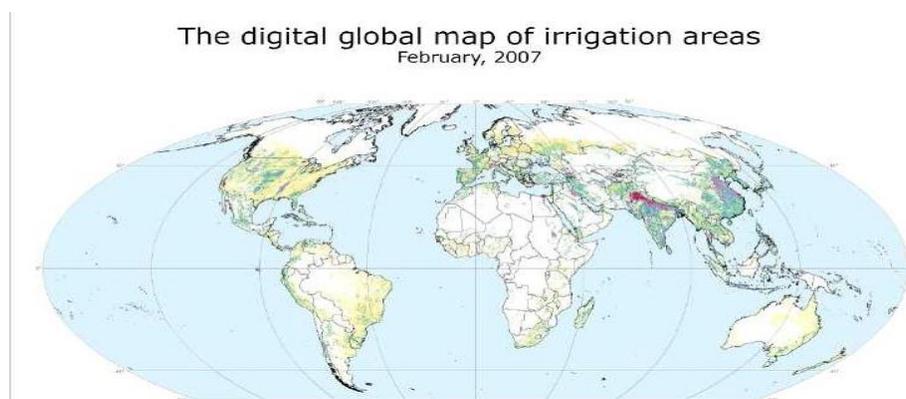


Figure 2: FAO Food Price Index. Source: FAO

The recent volatility in food commodity prices is a strong warning that the globe's food supply systems are not infinitely elastic. Against known trends in demand, disruptions to food supply through adverse weather or the unintended consequences of bio-fuel policies illustrate how sensitive both subsistence and intensive farming systems can be to external shocks.

The increases in agricultural output in the 20th century can be attributed to horizontal expansion of arable land and the capacity to intensify production through the application of seed, fertiliser and pesticide technologies and the ability to store, divert and pump surface and groundwater. Such factors were largely behind the ‘green revolution’, a period characterized by significant increases in agricultural output in most parts of the world, and notably in countries such as India and China. Dams, diversions and other infrastructure harnessed water (lake, river and groundwater) resources for farming and energy production. In addition, increasing trade enabled food to be transported from surplus countries and regions to countries and regions which did not have enough food production capacity and/or chose to allocate land and water resources to other productive uses. Given the current volatility in global food production, the continued performance of the large contiguous areas of irrigated land needs and their related water infrastructure to be examined.



Source:
<http://www.iwaterwiki.org/xwiki/bin/view/Articles/Producingenoughfoodinaclimateinsecureworld>