Climate Change and
Global Public Goods program
Contact: alex.evans@nyu.edu

Food prices: what next?

Presentation at Global Development Forum
1 October 2008

Alex Evans

Thank you very much for the invitation to speak here today.

In this short presentation, I'm going to skip over the reasons why food prices have suddenly emerged as such a major issue, as I think we're all by now familiar with the list – and instead zoom out a bit, and look to the medium and longer term. Are recent food prices rises just a blip, or are we looking at a long term structural shift? If it's the latter, then what does that mean for donors and development?

Well, one answer to the first question was given by the OECD and the Food and Agriculture Organisation in a report they published this year. They argued that the recent high prices will not last and would gradually come down, even if on average they remain higher than before the recent spike. So far, commodity markets seem to bear their point out. While prices remain much higher than pre-spike levels, the FAO food price index peaked in March this year, and then stayed level through the summer.

However, the OECD-FAO report made three very important assumptions. First, it took *no* account of climate change in its projections, because of the extent of uncertainty about its impacts. Second, water scarcity was also omitted. And third, it assumed that oil prices would stay between $90 and $105 for the next decade.

Unfortunately, there are good reasons to suppose that these three resource scarcity issues will, together with competition for land, in fact be critically important in determining the long term outlook for food.

Start first of all with **climate change**. Now, some climate sceptics will tell you that a bit of global warming will over the next few decades improve crop yields, at least in higher latitudes; and in fact, the IPCC agrees. Unfortunately, though, lower latitudes – where most developing countries are situated – will start see lower crop yields more or less immediately. That's before we consider other impacts that will also have a negative impact on food supply: water availability and extreme weather events (like droughts, floods and hurricanes) being just a few examples. Overall, the IPCC reckons that climate change will cause an increase of 40 to 170 million undernourished people.

On top of that, there's the fact that agriculture itself is a major emitter of greenhouse gases – depending on how you count them, up to 32% of global emissions. So as well as coping with the

impacts of climate change, agriculture will also need some dramatic reforms to become more sustainable itself.

Second, there's **energy**. As well as turning food into biofuels, we also do the opposite: turn fuel into food. We depend on fossil fuels to plough the land, harvest the crops, then process, refrigerate, freight and distribute them. We also rely on fossil fuels use them to make much of our fertiliser, so as oil prices have rise, so fertiliser costs have risen even faster than food prices.

Now, thanks to the current global economic downturn, recent weeks have seen oil prices fall from their high of almost $150 to $98 today, which is within OECD and FAO's projected range. But look to the longer term, and the underlying supply fundamentals remain very tight. Global production has remained stubbornly around 85 million barrels a day in recent years, despite soaring demand. That doesn't prove that we've hit "peak oil", but it does underline the fact that the massive investment needed in new oil production – around $22,000 billion according to the IEA, or half of last year's gross world product – isn't happening. And without it, a recent Chatham House report concluded, we could be looking at $200 oil – and very much costlier food.

Third, there's **water** – where demand has tripled in the last fifty years. As population grows and per capita consumption rises, less is available per person. Already, half a billion people live in countries chronically short of water; by 2050, this will rise to more than 4 billion. Climate change will make matters worse. Of the four scarcity issues, water will probably be the one that makes most difference in the next ten years, as rivers and lakes run dry, and as groundwater from aquifers and water tables becomes depleted.

And finally, there's **land availability**. Analysts say that to meet a 50 per cent demand increase, we'll need to expand not just agricultural productivity, but acreage too. Unfortunately, that's easier said than done. FAO thinks that there's only 12 per cent more usable arable land – and there are plenty of demands for it from other uses besides food. One example is biofuel, which will use up a third of the US corn crop this year. Then there's fibre, like paper and timber; carbon sequestration, and the need to plant new forests to take carbon out of the air; forest conservation; and of course urbanisation, a particular challenge given that cities tend to grow on the most productive land. All this is before we take into account erosion and desertification – FAO reckons 16 per cent of the land we use now is already degraded.

So there are four resource trends – water, land, energy and climate change – that matter hugely for world food supply between now and 2030. Because of them, I think we can expect prices to rise further over the long term, and a lot of turbulence in agricultural production and world food markets.

So what needs to be done?

Well first, we need to recognize that increasing yields isn't enough. We also need to make food production and supply more **sustainable**, given that it's too often part of the environmental problem rather than the solution; more **resilient**, given the shocks and stresses that are likely to come our way; and more **fair**, given that the problem today isn't that there's insufficient food to go around, but rather that a billion of us are undernourished even as another billion are overweight or obese.

Second, we need to **invest a lot more in agriculture**. The proportion of development assistance going to agriculture fell from 17% in 1980 to 3% in 2006; we need to reverse that. We also need to invest *much* more in research and development, which was so crucial in driving the 20th century Green Revolution.

Third, we need to **focus on small farmers**. Paul Collier argues that poor countries need to shift to large commercial farms, let go of what he calls a romantic attachment to peasant agriculture, and encourage poor people to relocate to cities. But in fact, the last World Development Report makes clear that the fall in poverty during the 1990s took place mainly in *rural* areas – not because of migration out of them, but because of better conditions in them. Small farms are the largest employer in the world; 2.5 billion people depend on them. Countries like Vietnam show that small farms can work – we need to make that happen globally.

Fourth, aid donors need to focus a lot more on **scarcity issues**. Until just a few years ago, climate change wasn't that high on the development agenda. That's all changed now – but next, organisations like DFID need to focus on the need for fair and effective governance regimes for resources like water, land and fisheries.

Fifth, **social protection**. There's lots of excitement in development about successes in giving cash transfers to poor people, or other safety nets like food, or vouchers. These approaches can potentially play a big role in making poor people less vulnerable to wild swings in food prices. Usually, the main barriers to them are simply political – so aid donors need to work with poor people to lobby for them.

Sixth, **trade policy**. We've moved from a long term buyer's market and a commodities slump to a seller's market. For many states, market access is no longer the key concern in trade; instead, it's security of supply that's the new hot topic.

What that means is that we need to look at creating **buffer stocks** to improve the resilience of the world food trade system. Also, as food importing countries like China or the UAE look to agree **long term food purchase agreements** with countries in Africa and Asia – much as China's already been doing for a while in the context of oil and gas – donors need to help poor countries to ensure they get a fair deal.

More fundamentally, we need to take a flexible approach to developing countries' concerns on security of supply. The Common Agricultural Policy and US farm support still urgently need reform. But low income countries still need to be able to ensure that they keep some agricultural capacity of their own – especially given the effect of recent export restrictions. Not all protectionism is bad.

One last point. **We – people in developed countries – need to recognize the huge impact that our lifestyles have on global food market**s. Probably the single most important driver of rising prices has been biofuels, which we're using to reduce our dependence on foreign oil. Subsidies for biofuels are having a massive negative effect on food prices, and need to be reviewed urgently. On top of that, our diets, full of meat and dairy products, are massively inefficient in terms of water, energy and grain use, and emit more CO2 as well. We don't all have to become vegetarians, but we do need to realize that there are important

questions of fair shares at stake: Gandhi's observation that there's enough for everyone's need but not for everyone's greed is truer than ever.

I'll stop there, other than to add a quick plug just to say the text of this talk, plus lots of other material about food prices and development more generally, are all available at www.globaldashboard.org, the foreign policy blog that I co-edit. Thanks very much.