

## COMMENT ON OLIVIER DE SCHUTTER'S PAPER<sup>1</sup>

JOSEPH STIGLITZ<sup>2</sup>

I am going to try and be a little briefer. Two recent events, I think, have brought the issue of food into centre attention. The first is, right before this crisis there were very high prices but interestingly, as was pointed out, not high historically but they were still marked increases over what they had been before, increases of 100%. The second point is that, as we go now into a global economic crisis, the prices have come down but there are many groups in the population who do not have the income to buy food. So, on both accounts, we are facing larger numbers of people who are facing problems of food.

I want to spend a moment trying to analyse the sources of the high prices that existed prior to the economic crisis. Part of it had to do with climate change, but climate change has been happening in a relatively steady way, nothing spectacular happened and yet the prices changed very suddenly. But one of the things that did change rather quickly, two things changed, one is that the price of oil increased dramatically and a number of governments, the United States, Europe, went simultaneously to try to encourage, in response to climate change, high levels of switching towards biofuels, in, you may say, a very artificial way, trying to encourage the production of these as a renewable energy source. The result of that was that a lot of land that had been devoted to food production got switched to production of biofuel. Probably this is the most important single factor that contributed to the increase of the price of foods. I think the western governments that did this realised they had made a big mistake. They realised that, in fact, their policies were, in some sense, incoherent, they had not really priced,

<sup>1</sup> As delivered.

<sup>2</sup> This text is a Professor Joseph Stiglitz's interpretation of a note sent by Former President Professor Edmond Malinvaud.

and I will come back to that, they had not fully evaluated the environmental consequences of those policies, those were policies that were, for the most part, not very efficient and policies that did not even take into account deforestation that was being encouraged as a result of the high price of bio-fuels. So the net impact on climate change may not have been as positive as the advocates of renewable energy had thought.

There is a second factor but one that was somewhat of a puzzle and that was, as you pointed out, the role of speculation. The fact, as some people put it, that commodities became an asset category, large increases in speculation. From the point of view of most economists that was a little bit of a mystery because, in principle, what we call the 'spot price', the demand and supply on the market, is not affected that much by speculation and that is why the general consensus on this raised the question, how could speculators about the future price affect current prices of food. And I think the answer, in a way, had to do with the fact that there were millions of farmers all over the world, seeing that the price of seed in the future was likely to be higher, decided to put aside a little bit more seed, a little bit more grain, and so that the worries about the ability to purchase seed in the future, the uncertainties, the absence of insurance, all led to a supply response in, as I said, millions of farmers, and that probably contributed to an increase in the spot price, the current price of food. And then, the stories that were mentioned, the high price of food had a real impact on the real sector, on the rural landless, on the urban poor, on the many rural workers who still, even though they are farmers, buy a lot of food and therefore the increase in the price of food made them much worse off.

I am going to make just a couple of comments, one of them has to do with an optimism about why the problem of the overall supply of food may not be as serious as some people have worried, and then some remarks about why it may be worse than we have taken into account. The fundamental problem is that we have not allowed, we have treated two of the world's scarcest commodities, clean air and water, as if they were a free good, when in fact they are very scarce. That means the price system has not worked, people have not had the right signals, and the result of that really goes throughout the economic system. For instance, it affects incentives to innovate, we have not had incentives to economise on the use of water in the way that we would if we had good price signals. One of the things is that if we had had good price signals it almost surely would be the case that the price of meat products, meat, would be much higher relative to the price of grains. And if that were the case, it is probably since the production of each unit of

beef requires a lot of grain, a relatively small switch of consumption from beef to grain increases the total available food supply. So, in fact, on the available space of land we can actually produce a lot more food if we use it in a more efficient way, but our price system is not working well now.

The second reason for a little bit of optimism is the point that was made about underinnovation in research, particularly research related to Africa. Land used to be very abundant in Africa and so there was very little attention to the problems posed by land scarcity. That has changed very dramatically in the last 25 or 30 years and so there are at least some reasons for optimism that if there are more investments, particularly public investments, in agriculture in Africa, that it could have a potential of increasing productivity. The data that you have described is one that is obviously very disturbing, and people have been worried about this, the fact that the rate of increase of productivity in agriculture has not been very strong and it may be that, in fact, we have run out of new ideas that will work but, on the contrary, I think that there are reasons to believe that, in fact, if we devote our resources to this, it could be a benefit. The third reason for optimism is the hope that there are new technologies for the production of biofuels using marginal land that cannot be used for grain production. The new generation of biofuels use land that is not suitable for the production of grains but could be suitable for the production of biofuels so the hope would be that with more rational policies in biofuels and more research, the current drain of land used for biofuels will stop and there will be a change.

The other point that was made, that I think is very important to emphasize is the point that Amartya Sen made, it is not just the overall supply of food, it is access, purchasing power, the ability to buy, which is obviously the key issue right now as the global economy goes into a slowdown. Let me comment in particular on some problems facing small producers, that, in fact, the difficulties are actually much worse than have been highlighted and the problems that have been discussed for a number of years have been proven very resistant. The first is, focusing just for a moment on the small producers, Paraguay provides an example where in fact big landowners are taking over small landowners. This is a country where the concentration of land already is extraordinarily high. The Gini coefficient, which is a measure of inequality on land ownership is over 0.9 – 1 would be perfect inequality and in Paraguay it is over 0.9 – extraordinarily high. But one of the things that has been going on, from what I have been told, is that the large landowners are spraying from the air using herbicides and Monsanto and the other companies have developed forms of seeds which are resistant to

the herbicides that they are spraying, so their own crops are protected and this increases the productivity of the large farmers, because they kill out all the weeds in a very efficient way and the genetically modified plants survive, but the small farmers who cannot afford the expensive seed have their crops devastated and the result of that is that they are forced to sell their land to the large farmers and so, in fact, it is a way of actually killing off the small farmers and turning what were small farmers into landless workers.

The issue of increasing concentration of marketing agents is a problem that many African governments try to address at one time by creating private parties. The question is how to control that, because it goes down to global level, where there is only maybe one person controlling the transportation system and that could be local kinds of mafia where competitor shippers have physical violence against them, so do we go and recreate the government marketing boards? I suspect that that is probably what ought to be done, at least in some countries, but it is certainly a difficult issue. A third example of the problems being faced by small producers highlighted in India, where, as many of you may know, there has been a rash of suicides going on, actually for a number of years now, in the hundreds of thousands of farmers committing suicide. While we do not have a clear understanding of all the reasons, one of the problems is that, under pressure from international seed producers, governments have lowered the standards for germination so that, when they buy seed, a higher portion of the seed does not germinate and the reason they did that, obvious reasons, is that some of the big seed companies did not want to be held to higher standards. Part of the reason is that some of the new seeds are more sensitive to weather and to water and so the germination might be affected by those variables. In any case, the consequence of this is that the quality of seeds has been going down, shifting more risk onto small farmers and therefore leading to a higher vulnerability and difficulties.

The point that you did not have time to talk about as much, but I think is very important, is intellectual property because one of the important areas for advance is the production of more productive seeds, but if those more productive seeds are controlled by a few seed companies, the benefits of those will be appropriated by the seed companies as opposed to going to income of the farmers and, if they are distributed in the form of higher prices and non regenerating seeds, it makes them more cash dependent, as you suggested, and making them more cash dependent increases their vulnerability to price volatility.

The final point is, if this were not sort of a depressing view, going forward there is a real risk of things being much worse. In parts of India, the

groundwater has been depleted at a very rapid rate and, though agricultural productivity has, in fact, been going up much lower than economic growth, at a rate of 1 or 2%, it is not sustainable. Even that low agricultural productivity is not sustainable unless big innovations occur, because it requires use of groundwater, which is running out.

Some of the other proposals for reform, like land reform, are, I think, very important but one should remember the long history of failure of land reform. There are many examples of land reform that have not worked, and we know a little bit about why they have not worked but one has to be very careful. For instance, just to give one example, one of the arguments put forward in response to land being taken away is titling and I think, in general, titling is a good thing but one of the consequences of titling, in many cases, is that farmers have borrowed on the basis of their land title and, when they have a bad crop or when the price gets low, they lose their land and titling becomes a legal way, as opposed to the extralegal ways that you describe, a legal way to convert farmers into landless farmers with all the consequences that that has.

One final comment I would like to make is the special relationship of food security or access to food to broader issues of human rights and I will just raise a very specific question that a number of economists have raised, which is a notion of specific egalitarianism. Should we be concerned about access to food or access to a minimum standard of living to make sure people have access to food? What should be the focus of attention, is it food or is it broader income, adequate income, to make sure that they have the ability to purchase the food that they need to have?