HOUSE OF COMMONS

ORAL EVIDENCE

TAKEN BEFORE THE

INTERNATIONAL DEVELOPMENT COMMITTEE

GLOBAL FOOD SECURITY

TUESDAY 5 FEBRUARY 2013

MAX LAWSON, DAVID MCNAIR AND PATRICK MULVANY

TIM LANG, CAMILLA TOULMIN AND ANDREW DORWARD

Evidence heard in Public Questions 1 - 67

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Oral Evidence

Taken before the International Development Committee

on Tuesday 5 February 2013

Members present:

Sir Malcolm Bruce (Chair)
Hugh Bayley
Fiona Bruce
Richard Burden
Pauline Latham
Jeremy Lefroy
Fiona O'Donnell
Mark Pritchard

Examination of Witnesses

Witnesses: **Max Lawson**, Head of Advocacy and Public Policy, Oxfam, **David McNair**, Head of Growth, Equity and Livelihoods, Save the Children, and **Patrick Mulvany**, Co-Chair, UK Food Group, gave evidence.

Q1 Chair: Good morning. Thank you very much for coming in. This is the first formal evidence session we are taking in our inquiry into global food security. We appreciate the fact that you have given us written evidence and are here to elaborate. For the record, could you just introduce yourselves?

Max Lawson: My name is Max Lawson and I am the Head of Policy at Oxfam.

David McNair: My name is David McNair, Head of Growth, Equity and Livelihoods at Save the Children UK.

Patrick Mulvany: Good morning, I am Patrick Mulvany, Co-Chair of the UK Food Group.

Q2 Chair: Thank you very much. Just to set the scene: there have been a whole series of spikes and troughs in food prices. It has been an issue over the last few years. I wonder if you could give us an indication of the major factors that affect supply and demand. Some of them are obvious but maybe some of them are less obvious. What are the ones that you think are the most important? We have to work out what, as donors, we can most usefully target. I just wondered if you would set that scene, and then I will bring my colleagues in with more specific questions.

David McNair: Thank you for the opportunity to share some thoughts with you. With regard to food price volatility, it is our view that we are now facing a situation where there is an increasing likelihood of increasing volatility as a result of climate change, population growth and, particularly, increasing demand for energy-intensive foods and meat, as a result of economic growth and increasing prosperity in emerging economics. We are also concerned about the impact of biofuels, particularly biofuel mandates and subsidies in the US and the EU, which have an impact on volatility in three ways.

Chair: You can elaborate later, as we have some specific questions on biofuels.

David McNair: I would say that there is clearly a need to increase productivity, particularly for smallholder farmers, and to do that through public investments in education,

infrastructure and helping smallholder farmers get access to market and increase the quality of their production. There is also a need to think about the governance of the food system, particularly in fragile states. Across the Sahel we have seen recurrent food crises. These need investment at the start of the food price crisis, as soon as the early-warning systems kick in, rather than responding when it is too late and there is already damage done.

Max Lawson: Obviously with increasing demand, increasing numbers of people and increasing numbers of hungry people, there is pressure on scarce resources. Partly driven by the biofuels mandate, we are seeing an increasing rush for arable land in developing countries, much of which is used to either speculate on the value of land or to grow food for export to rich-country markets. We think that is contributing to the inefficiencies in the food system and driving up prices unnecessarily. That is very much linked to the biofuels issue. I would add a final point, which is more about accentuating price spikes, which is the problem of food price speculation. So the financialisation of the food market is making the price discovery function much more complex and, arguably, driving up spikes and making them worse than they would have been otherwise.

Chair: These are all issues we are going to explore a bit more anyway.

Patrick Mulvany: I agree with what my colleagues have said. I would just emphasise two points in addition. One is governance. There clearly needs to be improved governance, particularly through the Committee on World Food Security—which we might come on to later—which is the UN body in charge of governing food and agriculture. That spills over not just into international but also regional and national governance structures. Secondly, I would emphasise the role of the people who supply most of the world's people with food, the small-scale food providers themselves. We should see what can be done to protect and support their systems, and make sure that their systems can focus on food production not commodities; see that they are able to have support for social and environmental sustainability, with better use of soils, water and agricultural biodiversity; and ensure that they can get better livelihoods through local value addition. One of the ways of improving that is to make sure that a greater return comes to the small-scale food providers themselves, from whatever consumers pay, and secondly, to look at ways of evening out periods of glut and periods of shortage through better grain reserves and grain storage facilities, particularly at local level.

Q3 Chair: Again, we will explore that issue. Can I just pick up one point? You specifically said that smallholders should concentrate on producing food and not commodities. Obviously there is a desire for food and, in some cases, cash. Are you saying they should not produce for commodities at all, or that food should be the priority and the commodities should be a cash reserve? Clearly, quite a lot of smallholders are involved in coffee and tea and things like that.

Patrick Mulvany: The view of the small-scale food providers' social movement, Via Campesina, and the networks in Africa with whom we work very closely is that they would wish to give priority to food but of course, where livelihoods are concerned, you want to be able to produce things you can sell in the market. The important thing there is to ensure that the greatest proportion possible returns to those food providers, rather than being lost in the system and captured by global corporations.

Chair: That just clarifies that point.

Q4 Hugh Bayley: Could I begin by asking David and Max a question? You are both members and sponsors of the If campaign. Why do you think it is important and why have your two organisations decided to focus particularly on this issue at this time?

David McNair: We have a golden opportunity in the next six months, as the UK is in a position to show global leadership on the issue of hunger. We have seen significant progress

on many of the MDGs. In 1990 12 million children under the age of five died. In 2011 only 6.9 million children died. So there is significant progress occurring but the issue of hunger is lagging behind. There is an opportunity for the UK to show leadership through its Chair of the G8 and the Prime Minister's role on the High Level Panel with regard to the post-2015 agenda. There is also the Scaling Up Nutrition movement, which is gathering momentum, and there are countries facing a high burden of malnutrition that will be publishing country plans, which will need resourcing. There is also the EU presidency, which Ireland holds, which is prioritising the issue of hunger. So we see this as a really opportune moment to make progress on the issue of hunger and put it at the top of the international political agenda.

Q5 Hugh Bayley: Can I put to the two of you that, while the campaign purports to be about food, it also makes reference, essentially, to some other issues that have a marginal impact on food availability and food prices, such as tax and transparency, whilst omitting other issues, like climate change and trade, that are clearly absolutely vital to food security. Why is this? How do you explain that?

Max Lawson: A candid answer is that, having been in the midst of negotiations for the last eight months, you have a coalition of over 100 organisations and getting down to a policy slate as small as we did was quite hard. You have to look at what people were working on already and what the key issues are for them and their supporters across the country, as well as the political opportunities that represent themselves. I certainly do not think tax is peripheral to the food debate. So much of what we are talking about is giving developing countries the ability to invest, and invest adequately, in smallholder farmers. They are being denied significant revenue because of tax evasion and tax avoidance. You could say the same about health care and education, and we are perfectly aware of that. But within the hunger debate, it makes significant sense to say that poor countries should have as much revenue to spend on agriculture and be scrutinised in doing that.

Q6 Hugh Bayley: I hear echoes of certainly Gleneagles and the Make Poverty History campaign here. The UK Government's preparation for Gleneagles took place over two and a half years—beforehand, we had the Commission for Africa report. It started at the time of the general election. The NGO mobilisation of public opinion in this country, and to a considerable extent in a number of other countries, again took place long, long beforehand. Do you not think it is a little bit late to slate proposals for this year's G8, especially when the Government has already put a focus on terrorism and some other international issues?

Max Lawson: The Government have agreed to hold the hunger summit. They have agreed to look at tax and transparency in the G8 itself. They have agreed to start talking about things like a deal on land transparency. After significant lobbying on our part over the past six or seven months, the policy slate for the G8 has shifted. That is as a result of the fact that you have 100 organisations or more coming together with one voice. I was heavily involved in Make Poverty History too, and I can tell you that it was very last minute. We launched with Nelson Mandela in January 2005 so the timing is actually identical. Could we be more prepared? Almost certainly. Could we have spent less time talking to each other? Almost certainly. But that is the power of the coalition and the power of speaking with one voice. We are very keen to get as much progress as we can in the next few months. We have very big plans.

Q7 Hugh Bayley: Good, thank you. Patrick, you represent the UK Food Group, which has not joined the If campaign. Why have you taken that decision?

Patrick Mulvany: The UK Food Group is a coalition of about 50 organisations. We asked all our members, as the campaign was developing, what they would like us to do as a

network. The answer came back that individual members would very much like the opportunity to join; some said they did not want to, and we said that that was fine and we would not be part of it. We could not be part of it; we were not mandated to do that. Of course we wish the campaign well. We hope, as you point out in your question, that the issues look well beyond the G8, which is in a sense a bit of a distraction from the broader governance issue I raised at the beginning of how to strengthen the Committee on World Food Security, which is the body mandated to take these things forward.

Hugh Bayley: Thank you, all of you.

Q8 Mark Pritchard: I am somebody who supports the Government position, not because I am a Conservative but because I agree with what they say vis-à-vis the DFID budget, and one of the things my constituents say to me is that they expect value for money. Specifically I have a question to Mr Lawson and Oxfam. On the point of value for money, do you think that taxpayers' money—and of course Oxfam are a major beneficiary of the DFID budget—should be funding the Bureau of Investigative Journalism? Whilst there is room for investigative journalism in this country and we want to see free speech, free journalism and these journalists doing a good job, do you think it is the right use of taxpayers' money, through Oxfam, to fund such an organisation?

Max Lawson: To be clear, we have a maximum limit of 10% of our funding from the Government. 90% of Oxfam's revenue comes from the British public. We are very clear that what we do with some of that money, about 9% of the overall spending, is campaigning and advocacy. The grant you are talking about was part of that. We are very open with our supporters that that is what we do with the money. We do not do that with DFID's money.

Q9 Mark Pritchard: Secondly, on the Robin Hood Tax campaign, do you think it right that taxpayers' money, through Oxfam—whether it be 10% or not—should be used to lobby Government on a tax issue, given that many of the people that contribute through their taxes to Oxfam, in the 10%, or contribute to Oxfam in the 90% may take a different view from Oxfam on the tax issue? Nevertheless, part of the budget is used to lobby the Government on something that they themselves can lobby on directly or choose to vote for another party if the other party takes a different view.

Max Lawson: It is a perfectly reasonable point. What the If campaign shows is that, in these straitened times, it is not enough for development agencies to just cry for more money. We need to have a proper debate about how that money can be raised, and raised in effective ways. The Robin Hood Tax is an international campaign. In Germany it enjoys enormous Government support, and in this country the current coalition Government is not supportive. It is about Oxfam, and many, many others, positing positive solutions to the revenue question. For too long we have been accused of just asking for more and more money when, very rightly, ordinary people across Britain are facing very tough times. I am actually quite proud about the fact that we are now in a position where we can talk about things like tax evasion and tax avoidance and link domestic debates around revenue to the plight of the poorest people overseas. I think we all agree, as the Prime Minister said in Davos, that this is about responsible capitalism. It is about investment and not the kind of casino gambling that got us into the financial crisis.

Q10 Mark Pritchard: The Millennium Development Goals are due to end in 2015. There have been suggestions about new MDGs, such as transforming economies. Do you think that money should be shifted from things like universal primary education, which is part of the existing MDGs, to such things as transforming economies? I would argue that you cannot really have the second without the first. Similarly, on the emerging potential new

environmental development goal, for most poor people in Africa, having food in their stomach today rather than having a solar panel on the side of their hut—although I accept that that could change their lives—is probably a more pressing priority.

Max Lawson: I have enormous sympathy with your view. We are in an excellent position in Britain, in that the Government is committed to increasing the aid budget. That is not the case in the rest of the G8. It is certainly not the case in Europe. With shrinking aid budgets, these priorities become even more important, because you are basically robbing Peter to pay Paul: "You no longer go to school but you have a solar panel." We cannot have that situation. We have to have a situation where aid volumes are defended. Particularly with the new, pressing problems of climate change, we need to look to innovative financing and innovative mechanisms of raising money, like taxing shipping or like a financial transaction tax, which we support, to start looking for other ways to support that. I agree with you. I lived in Africa for a number of years and I know exactly that people will say, "I cannot eat a solar panel." There are pressing and incredibly important needs like malnutrition and hunger that must be fixed and can be fixed. That is what the If campaign is about.

Q11 Mark Pritchard: So Oxfam do not support a new environmental MDG without having dealt with the original MDGs?

Max Lawson: We think goals are important, and these can have a 10 or 15-year horizon. We think that climate change is a new and very pressing problem, and it is real for many people. Whereas the solar panel analogy can be right in some countries, in places like the Sahel, if you ask any of the farmers we work with whether climate change is making them hungry right now, they will tell you yes. They will say that the climate has changed dramatically in the past 10 years. I do think there is a place for environmental goals in the new set of goals, but I agree with you that we have to look at what the pressing priorities are, particularly regarding what poor people need.

Q12 Mark Pritchard: Thank you to the other members of the panel for your tolerance during those questions. It has been suggested that the UK and the EU should scrap their biofuel targets of 5% and 10% respectively. Do you think they should?

David McNair: We are concerned about the impact of biofuels because we believe there are three transmission mechanisms that result in increases in food prices and food price volatility. That has been admitted by the EU and by a whole range of international organisations, such as the IMF, the World Bank and the OECD, who have called for a suspension of biofuel mandates. Those three transmission mechanisms include the competition for land, water or other resources, where resources that could be used for growing food are used for growing crops that go to fuel. That is obvious. There are other transmission mechanisms that lead to food price volatility, such as an increasing link between oil prices and food prices. Also, interestingly, there is the driving down of stock-to-use ratios. If you look at food price spikes since world war two, almost all of them have occurred when stock-to-use ratios are at a low level. Biofuels, because of the massive demand created by mandates, are driving down those stock-to-use ratios. So there is a long-term trajectory of food price increases, which have been modelled by a number of credible institutions. There is also this issue of increasing volatility, which has knock-on effects on poor people who are not prepared to weather those storms.

Patrick Mulvany: The biofuel targets, which were set some time back and are now being modified, have had these unintended consequences. The transfer of land from producing food or other purposes, to producing biofuel crops— agrofuels as we call them—has had a devastating impact in many of the countries with which we are very closely associated. In fact, the farmers' organisations and us produced a report called *(Bio)fuelling*

Injustice, which I can share with you at some point, which shows the impacts on food sovereignty and the right to food.

Going back to your previous question, the environmental impacts of agriculture are well known, but agriculture is part of the solution. A more biodiverse and a more ecological type of food production will do so much in terms of enabling farmers to adapt, having more biodiversity in the food system and more agricultural biodiversity, enabling sequestration of carbon in the soils, enabling better use of water and increasing productivity. That is backed up by the International Assessment of Agricultural Knowledge, Science and Technological Development—IAASTD—report, which came out in 2008. All of those things would probably have the greatest impact globally on the environment. Some 40% of the land surface area is managed by human beings. In terms of this inquiry, there is a very important point that could be made about the environmental benefit of having a more sustainable and more agroecological type of food provision.

Q13 Jeremy Lefroy: Biofuels—apart from in Brazil, where they have been used for decades—have only really come on to the agenda in the past five to 10 years. Yet they seem to have been a major policy mistake. Why has that happened and what is the assurance that we are not going to make similar, really stupid policy mistakes again? We are talking about something that, only five years ago, was being touted as a solution.

Chair: To be fair, that was by quite a lot of the NGOs that are now totally opposed to it.

Max Lawson: I could not possibly comment on that. I could certainly say that there is no guarantee that policy mistakes will not be made in the future. We cannot talk about that. We can talk about the origins of biofuels. There was a body of thought that this was a good solution and an environmental solution. With increased evidence about digging up carbon sinks and the amount of carbon that has been put into the atmosphere, the evidence is now categorical that that is not the case. That evidence was not there at the time these decisions were taken. You also have to look, particularly in the US but also in Europe, at the political climate.

Q14 Jeremy Lefroy: Surely, with respect, when subsidies are being given to grow stuff that cannot be eaten, or could be eaten but is converted into ethanol, economists could have said that it is a statement of the blindingly obvious that it will be diverted from the food chain. If you look into the global food stocks over the last decade on grain, they have moved from 90 days to something like 78 days currently, according to the information we have been given. There has not been a huge surplus around, and yet we have been putting diversionary economic incentives in the way, and we still are in this country. In my constituency, farmers are being encouraged to grow maize to put into anaerobic digestion on grade 1 agricultural land, which seems crazy.

Max Lawson: We would completely agree with you. We think that biofuel targets are completely insane and should be removed. Your question was about where they came from. There is a really strong political economy, in the US and Europe, around further defence of the subsidy of farmers and also about energy security in America. That has driven the crazy politics that sees more than half of the US corn crop now being burnt in cars. So you are absolutely right: from any rational perspective, with limited food on the planet, the idea that we are burning any of it would seem to me to be completely the wrong thing to do. That is why we are campaigning against that.

I do think the evidence itself has moved on the environmental question. That was the only point I wanted to make. That is what is different. Yes, economists should have spotted

that many years ago. They probably did, but their incentives are more about subsidies and, particularly in the US, energy security; that is what is driving it.

Patrick Mulvany: Can I add a quick point on that? Just remember that, in this country, we used to power agriculture through biomass: horses. Horses eat oats. There was a huge release of land when we moved from horses to tractors. Some 2 billion people in the world depend on biomass as their primary source of energy. Areas you know well, such as most plantations and estates, use residues to power what they are doing in their processing activities. So all of that has happened and is happening. The lesson to be learned is, rather than pandering to us NGOs in the north who say, "It is most important for you lot to shift every policy in a certain direction," listen carefully to what the organisations and social movements of the small-scale food providers are saying. They would have told you, "Yes, we need a bit of help in being able to utilise biomass better, but do not shift all our food production into something that we cannot eat

Q15 Fiona Bruce: You have touched on the problem of insecurity in land tenure with regard to food production. Mr Mulvany, could you give us some background evidence for the comment you put in your written evidence and explain the scale of the problem as you see it? You say, "Far too often … land grabs have displaced people, without genuine prior informed consent, through forced evictions and without adequate compensation."

Patrick Mulvany: There is a rash of investments going on. Sometimes they are big cash-transfer investments to Governments. Sometimes they are agreements with Governments that they will lease land to foreign investors at relatively low rents on the payback of having infrastructure development and so forth. There is quite a lot of evidence, which I can supply afterwards, from a number of countries in which we have been active and from which we get reports. For example, in Ethiopia, where the Government has decided that certain tracts of land should be put in the hands of foreign investors, and the local community has been removed from that land. Sometimes you will be aware of these comments: that this is unused land, empty land or whatever. Go and have a look. Look at the pastoralists who are using that land extremely efficiently. Look at the smallholder farmers. Look at the ways in which river courses are used and local fishers are displaced. It is a really serious issue and the evidence is pretty solid. There are reports from Olivier De Schutter, the Special Rapporteur on the Right to Food. I see that he has submitted evidence to this Committee. He highlights a number of occasions when this has happened

At the moment there is an acceleration, and there needs to be a very clear role for the implementation of the Committee on World Food Security's voluntary guidelines. Also, we need to look at what Committee on World Food Security is considering in terms of agricultural investment, bearing in mind that this relatively small proportion of global investment distorts land-holding patterns dramatically. 90% of investment in agriculture is made by the smallholder farmers themselves. I can provide some information on that as well. It really distorts the picture. It really affects the realisation of the right to food and food sovereignty.

Q16 Fiona Bruce: Thank you very much. The Committee would appreciate your written evidence on that. So what you are saying is that it is extensive across a number of countries, for example across Africa. You have talked about the impact on food production. Do you feel the impact on food prices as well is a negative one?

Patrick Mulvany: In the same way as: what is that land used for? Is it held in reserve? Is it used for biofuel production? Is it used for commodities that do not benefit the local population? It is a real, significant transfer of resource from poor people—from those who provide the most food in the world—to foreign investors, with very devastating consequences.

It is not just land grab but resource grab. It is resource grab, whether it is water, land, genetic resources or the minerals that are under the land. That resource grab is really skewing the opportunities for the livelihoods, food production and capabilities of the small-scale food producers—the ones who feed the world.

Q17 Fiona Bruce: I have a final question to you, before I am pleased to invite comments from your co-panellists. The large international corporations would argue that they are creating jobs. Do you see any justification for this either in the immediate or medium term?

Patrick Mulvany: I am sure that they always do. It is probably true that, if they are investing in something new, they create jobs. But who asks the questions about how many jobs are displaced, how many people were pushed off the land, how many opportunities to produce food were denied or how many livelihoods were affected? This is a distortion of what is required. As I said in my opening comments, if we refocus on supporting those small-scale food providers and ensuring that they can continue to provide most of the world's people with good food, we would be much further along than we are today.

Q18 Chair: Whilst not condoning that, does that not tend to be the pattern of agricultural development? The examples in this country would be, most negatively, the highland clearances, but more constructively people have talked about the enclosure movement, which led to higher productivity but displaced an awful lot of people. I am not saying it is justified, but is it not part of the process of intensifying agriculture?

Patrick Mulvany: It depends on whether you see a lot of extra wool as being higher productivity. History will tell you what the impact of the highland clearances was. It disrupted the fundamental food production systems in the highlands and islands. When you talk about increased productivity, you have to look at it in terms of what it means to the increase in food available at affordable prices to local people.

David McNair: I would agree with Patrick's comments. When farmers do not have security of land tenure, it inhibits investment in that land. It also inhibits the ability to leverage resources from that land, borrow capital and so on. From our viewpoint, it comes down to the issue of governance. We need to invest in cadastral surveys and land governance. There is an opportunity, given the chair of the G8, to take this forward on the issue of international investment by developing some kind of mechanism to ensure there is transparency and governance around large-scale land investments. We know that the Prime Minister has referred to that in his comments already. This is a really important opportunity that could be taken forward, both with investors in the City of London and using the UK's convening power, to look at other G8 countries or other major private sector actors. An agreement could be made to be transparent about the land they are purchasing and to consult with those stakeholders that need to be consulted when they are making those agreements.

Q19 Fiona Bruce: Do you think that support, perhaps through DFID aid, on systems of land tenure would help accelerate that? It is a huge project. In this country it is a project that started in 1925 and is still continuing. We are talking about a massive challenge, but we see high-level support and aid as really beneficial.

David McNair: Yes.

Patrick Mulvany: In implementing the guidelines.

Fiona Bruce: Yes, an incremental start.

Max Lawson: What is really interesting is, when you look at countries that have developed very rapidly in the last 50 years, such as Korea or Taiwan, at the bedrock of that is very equitable land distribution, which is quite the opposite to British history. If you really

want a country to take off and provide jobs for its people, which is what we want here, we want good investment in agriculture that is going to create jobs. Of course that is going to involve some land purchase and some land leasing. We think it can be done fairly. We think it can be done in ways that compensate communities.

It is very easy to distinguish between the kind of investment that the poorest countries need, which will create really good, decent work and invest in smallholders, and the annexation of large portions of land that is going on at the moment. It is in the report but it bears repeating: an area the size of London is being sold in developing countries every six days. Like biofuels, and very much linked to biofuels, that is a new and emerging problem that was not there even five or six years ago. As a trend it is deeply worrying and it is exactly the wrong kind of investment; it is the kind of investment that will not create jobs, will not create growth and will not, ultimately, tackle hunger.

David put it very well: that is something that the G8 could really deal with. You have this excellent system of voluntary guidelines agreed through the UN. It is not about supplanting that but it is about giving energy and voice to that. It is about aid to help countries implement it. It is really interesting to see countries like Mozambique and Tanzania coming forward now and saying, "We are very worried as Governments about the lack of transparency." There are debates in Mozambique about whether they are being re-colonised without even realising. There is a real concern now emerging in many developing countries that they want this done fairly and they want the kind of investment that will benefit them, not just foreign markets.

Q20 Jeremy Lefroy: The point you have made about countries such as South Korea coming out of poverty with fair use of land is an extremely important one. I would also point, in Europe, to the example of the Netherlands, where their development has been very substantially based on an active and fairly equitable farming sector. It is still a major producer and processor of food. It shows that you can develop a modern economy on the basis of a thriving, mostly smallholder, agricultural sector, because it is not characterised by large-scale ownership generally. Developing that point, one thing that DFID has been keen to do, and it is particularly emphasised in Rwanda, where there is an extremely good programme, is support for land registration and land registries. They are completing a programme to register something like 10 million plots there with DFID funding. Would you see this as something that DFID should be concentrating on? Is this something that should be given greater priority as part of the agricultural programme for the very reason that you outlined: the encouragement to farmers to invest in their own land?

Max Lawson: We would. We would be a little bit cautious. When I lived in Malawi, working for Oxfam, this was very much a key issue then about registering land. It is really important to recognise, particularly in Africa, the importance of customary tenure. So it is not a cookie-cutter approach, where you purely have property rights in the classic British sense of the word. Often there are ways of giving people security of tenure, so you know that land is yours, but in a customary way. The reason I say that is important is because very often you can have distressed sales. At that time HIV/AIDS was a very big problem, and if you suddenly create millions of assets and the poorest people in the land suddenly have money, often you can see a rapid consolidation of land, which would be the last thing you would want. Yes, we definitely think that DFID should be involved in formalising tenure, but it should be done with a view to the continued equitable distribution of land and not suddenly creating a market that would lead to exactly the same consolidation.

Q21 Jeremy Lefroy: Would you be against any consolidation?

Max Lawson: No, we are not at all against all consolidation; it should be cautious, with a view to the ultimate aim—being equitable growth and decent work.

Q22 Jeremy Lefroy: Thank you. A number of us wrote a letter to the Secretary of State for DFID requesting the World Bank have a moratorium on funding large-scale land acquisitions. She replied that she did not necessarily think this was the right way forward. Do you think that to do so, from our side, is a bit of a gesture, or would there be substance in pushing the World Bank, particularly through the IBRD, to stop funding large-scale acquisitions for a time?

Max Lawson: Since we made that call, we have also seen a number of African countries take that step. There is definitely a very strong case, given the speed and scale of what is going on, for a pause for thought, particularly with the bits that we have significant influence over. The UK is a major shareholder of the World Bank. Also, the World Bank as an institution has a long track record of setting standards and raising issues up the international agenda and showing a lot of leadership. In asking them to do that, and we are still asking them to do it over the next few months, it is about taking that step back but being proactive about getting the governance and these voluntary guidelines up and running.

There is some really fascinating research we have just done that shows there is no correlation between available arable land and the extent of land grabbing. The strongest correlation is between poor governance in a country and the amount of land grabs that are going on. It just shows the huge disjoint between what is happening and what is actually needed. It really does require a pause for thought and it would be great if the Bank did that.

Patrick Mulvany: I think you are doing a great job. I think it is really important that the Bank is called to order. As Max was saying, it is allowing or facilitating moves that are broadly unhelpful. There is also a secondary thing: the Bank also has a process of developing the principles for responsible agricultural investment. Those principles fly counter to those being negotiated through the Committee on World Food Security. They have a similar name: the Principles for Responsible Agricultural Investment. While the Bank is looking at a major shift of capital to developing countries, the Committee on World Food Security is looking at how to support investments by the small-scale food providers themselves. These two are jostling for space internationally. I would argue that it is really important that you recognise that and push DFID to be much more supportive of the Committee on World Food Security, particularly the implementation of the voluntary guidelines, as my colleagues have said, in order that one ends up with a proper equitable distribution of land, not allowing for the concentration, that we have touched on, of not just land but also water resources, genetic resources and agricultural biodiversity. All of these are tending to concentrate, and we need these guidelines to be implemented at national level, for which there is some cost. It would be a good investment by DFID to put money into the implementation of the voluntary guidelines on access to land and other natural resources at a national level

Q23 Pauline Latham: Many smallholders want to change from subsistence farming to cash crops, quite rightly, because they are not making any money at the moment. For smallholders that want to do that, do you think it is appropriate to focus on cash crops for local markets or should they be supplying large corporations such as SABMiller?

David McNair: There is clearly a need to increase the quality of crops so that smallholders can access local and international markets and invest in infrastructure so they can transport those crops without damaging them and they have information on prices. That is really crucial for the nutrition agenda as well. One of the key pathways to good nutrition is not just dietary diversity but having an adequate income to purchase an adequate, diverse diet. So we would see a need to increase productivity and particularly public investment in the kinds of infrastructure that allows that to happen. Also, we need education on dietary

diversity and specific initiatives, such as market gardens, that enable smallholders, when they are producing cash crops, to also be able to access the right nutritious foods.

Q24 Pauline Latham: What about large corporations?

David McNair: There is a need for smallholders, if they get a fair price and if the mechanism is there to do so, to be able to raise their incomes.

Patrick Mulvany: We need to bear in mind that 70% of food is local at the moment. Just the other day I was in Rome talking to some of the farmers' networks. They will always stress that they are not subsistence or market focused; they are both. The important thing is that, whatever is done to stimulate the market, it does not lead to the co-option and, essentially, destruction of their local market but strengthens it and, at the same time, does not encroach on the land that is needed for local food provision. Some 70% is provided for locally. For example, in Senegal 70% of the food the whole population eats is provided locally. That needs to be strengthened not weakened.

Q25 Pauline Latham: Aren't those just the same old crops? There is not a huge range of crops.

Patrick Mulvany: There again it depends on whose data you look at. If you look at the information, which is usually grey literature and is not formally recognised in the FAO, on the very wide diversity of species that are used in the food system at local level, you will see ways of being able to improve and increase that crop diversity. That includes animals and some fish in the diet, increasing the range of species from which food is drawn, and strengthening that as part of a healthy diet locally. Then, yes, if there are some other bits of the surplus or other bits of land that are not encroaching on that, which could be used for markets—local, national, regional or even international—that is fine.

The problem is when the commercial activity, often run by the men, comes in and takes land away from the women who are growing this great diversity. Look at a Jamaican kitchen garden. There may be 50 or 60 species. That is hugely nutritious and always productive throughout the year. There are lots of examples like that all the way through Africa as well. That is the thing to focus on. These are areas that do not receive sufficient support. Agricultural research completely bypasses it and focuses mainly on commodity crops. I think there is an opportunity to redirect research towards these more biodiverse, more ecological, more nutritious types of production that will serve the local population. But where there is good land which is appropriate for it commercial activity, not encroaching on food production, it is an option.

I was recently in Kenya, looking at an interesting area just north of Nairobi, where they have tea production—which goes to a local co-operative and is sold on into the international market—on the slopes, and on the flat land it is all food production run by the women. It is a very good balance. There are opportunities to be able to do both, but do not allow the commercial pressures to encroach on the food provisioning of the local communities.

David McNair: There is an issue of governance here. If you look at the African country-owned plans—the CAADP plans—and also the G8's New Alliance for Food Security and Nutrition, you see that they are largely focused on increasing productivity with the objective of increasing economic growth. There is a good reason for that. Economic growth that comes from agriculture is much more effective in challenging poverty. We also need to think about the nutrition elements and ensuring that poor people, particularly farmers, have access to a nutritious diet. That may be through raising their incomes and purchasing it or it may be having some land set aside to produce nutritious crops. That is really crucial, not just

for the farmers themselves but also for children, particularly at the start of life. Not having that right nutrition can inhibit their future potential for the rest of their lives.

Q26 Pauline Latham: Mr Mulvany, in your written evidence you argue that DFID is too close to large scale agri-businesses. Can you give us some specific examples of that, please?

Patrick Mulvany: Some of our members have produced reports on this, and I am happy to share those with you, which actually identify particular bungs from DFID to corporations. There is a sense, which I raised, that if there were a better focus in DFID on food and the food provision of the poorest and the majority, rather than falling prey to pressure that comes from certain quarters to be able to support—

Q27 Pauline Latham: You just said that you have a sense, so this is not actually fact; it is just what you feel.

Patrick Mulvany: I can provide some facts in the reports, which I will send to you. Let me just emphasise that you should look at the proposals, not just in DFID but other parts of Government. This Committee would be well advised to call for a cross-Whitehall look at food and agriculture, involving not just DFID but also the Office of Science and Technology, DEFRA, BIS, DECC, the Department of Health and all the Departments that have some say in what happens internationally. You should get them to think again about the focus. The focus on agricultural research should be on supporting those smaller scale, more biodiverse, more nutritious and more ecological production systems, rather than supporting a commodity production system that is driven very much by global corporations. I think you will find that quite commonly in what is prepared by Government. It is echoed by DFID, and the new agri-tech strategy, coming from BIS, will try to put far too much emphasis on proprietary technologies rather than looking at how to support and strengthen that local biodiverse ecological food regime.

Q28 Pauline Latham: Could I ask the other two how you would see the best way to support smallholders? How could DFID help in that respect?

Max Lawson: This is why the tax issue is important in the If campaign. There is also the aid issue and the fact the coalition Government is committed to increasing aid. It is important to look at what that public investment could do. From the perspective of farmers, particularly poor women farmers, farming is an inherently very risky business and is becoming more risky with climate change. There is a lot that can be done by the public sector to help mitigate that risk. That could be investment and extension or information, which is fairly non-contentious, or it could be revisiting marketing boards in certain places, looking at the availability of storage or setting prices for particular crops. There is a lot that can be done to have an agricultural system that benefits the majority.

Q29 Pauline Latham: Who should be setting prices?

Max Lawson: In certain instances, having a marketing board that says, "We will be able to purchase this amount of your crop at the end of the season and you are going to get this level of price for it," is actually exceptionally useful if you want to invest in your farm. If you need to mortgage enormous assets to get fertiliser, for example, you need some level of security. It is basically a transfer of risk. At the moment all the risk has been transferred to the farmer. We need to redistribute it back in one way or another.

Q30 Pauline Latham: That is the sort of thing that SABMiller are doing. They guarantee the price of the sorghum in Uganda. They will guarantee it, and they take the risk of whether it is a good crop or a bad crop.

Max Lawson: That is not necessarily a bad thing; it could be a good thing.

Q31 Pauline Latham: As you say, it gives them certainty.

Max Lawson: Certainty is important. That can come from the private sector but it can also come from the public sector, which is why public investment is so important. It is really important, and I would underline what my colleague was saying about the diversity and the knowledge of farmers, and the gender aspects of what we are talking about here. In my experience in Africa, the amount of diversity and local knowledge is extensive. There are far more experts on agriculture in the average African village than there are in DFID at the moment. It would be really good for DFID to learn from those experts and invest more in the knowledge of what actually works. That is something that could come with the increase in aid and the increase in agricultural investment. There is a paucity of knowledge and understanding that could be addressed.

Q32 Chair: You are all making very strong points about the merits of smallholding, which obviously we should take seriously. I know it is defined as very small, but is there a minimum or optimum? What about things like crop rotation, which you cannot really do on a tiny plot? Do you accept that somebody like Paul Collier does take the view that, actually, there needs to be a lot more consolidation? When we were in Rwanda looking at the land registration, one of the things people said was that land registration will make it easier for people to sell their land. The suggestion was that you might very well find one guy in the area buying up all his neighbours, and suddenly he has a 50-hectare farm. I just want to push you a bit harder to say whether you think all that is a bad idea.

Patrick Mulvany: We get hung up on this term "smallholder". That is actually not the term used by our colleagues in EuropAfrica in this project we operate with the networks of farmers in West, Central and East Africa. They much prefer the term "family farming". You cannot be precise about size, but the other thing is that, indeed, one needs the opportunity to be able to do what is necessary to maintain the health of the soil and proper ecosystem function. It is, in a sense, an unhelpful term. As we say in our report, it has now become a new orthodoxy, which seeks, on the one hand, to incorporate smallholders into the global food system for as long as is useful to the global food system—and then everyone is spat out, as has happened in this country—or looks at supporting small-scale food provision with all the benefits that I have outlined in terms of food, social and environmental sustainability and improving livelihoods at a local level. We can learn from what Via Campesina, the small-scale food providers' organisations and the social movements are themselves saying. Let us focus on those relatively small enterprises, relatively small family farms, and see how to continue to support them—they who provide 70% of the world's people with food.

Q33 Fiona O'Donnell: It is really interesting listening to the evidence. With food poverty and security increasingly becoming a concern at home, we could actually implement some of these policies in the UK. I want to return to the issue of food prices, because that is a major part of food poverty and insecurity. I know it has come up but I want to make sure we have not missed anything. I am thinking in particular about the price spike in 2007 and 2008. Are there any factors you have not touched on that caused that?

Patrick Mulvany: There is one thing I would like to emphasise, which is speculation. It was briefly mentioned in our submission, and one of our members, the World Development Movement, is working quite a lot on it, so we can provide more to you. There is the

Government's reluctance to invoke what are called position limits. Those are a mandatory limit on what can be held by speculators, which is clearly a factor affecting prices spikes. The more relaxed voluntary measure that they are proposing is really not satisfactory. There is something we can do at home, and something we can do in the City, which is handling a lot of this speculative stuff, that affects price spikes, and that is really important. Just remember what I said earlier: the root of it actually depends on being able to even out fluctuations in supply through grain reserves at local levels. If you can do that, you will actually get around a lot of the problems.

Q34 Fiona O'Donnell: We are probably going to talk about speculation as well, and you may want to come back, Patrick. We have some evidence from Christopher Gilbert, who says that speculation is only part of the problem. He talks about the price of wheat, corn and soya beans increasing from 14.8% to 16.9%. That was the percentage caused by speculation. Yet wheat increased by 100%. Is speculation really the main cause? What are the other factors?

David McNair: In 2008 export bans were a really major issue. You saw the major exporters, like Russia, panicking because the prices were going up and then imposing bans, which then sent panic through the markets and sent prices rocketing. One initiative that has been really helpful in that regard is the G20 Agriculture Market Information System initiative, where major grain producers are sharing information on a daily basis. Certainly, from conversations I have had, they have suggested that, during the food price increases last summer, the fact that those major producers were sharing information regularly prevented those export bans. There are initiatives that can be taken forward at the international level that really help the situation.

With regard to speculation, the evidence is less clear cut than it is on biofuels. Biofuels clearly do drive price spikes and increase volatility as well, as the long-term trend. There is clearly evidence of speculation amplifying current trends and also making, as Max referred to, the price discovery function much more complex. The question then is: what can we do about that? Is greater regulation at this point, now that investors and banks are involved in the markets, the right thing to do? We are not completely sure about that.

Max Lawson: We are fairly sure about that. The other important point about speculation is to look at commodities as a whole. Agriculture and food prices are intimately linked to the oil price, for example. The evidence for speculation on the oil price is much stronger and much less disputed. If you take those two together, you are looking at a situation where it is a magnifier. It is not the main reason but it is an important reason. The reason we want to focus on things like speculation on biofuels is that these are policy choices that could be regulated and could be stopped—they could be stopped in the near term—which would make the food system more efficient. That is the key point. It is about what is within the remit of politicians in the next few months that could actually make quite a big difference quite rapidly.

We are very worried about the financialisation of the food market. Derivatives and futures were invented by farming. They were a way of farmers hedging against risk. So it is not as if we are against the use of financial products; in fact, quite the opposite—they can be incredibly useful for farmers. You now have a situation where some futures traders in Chicago are really upset about the Goldman Sachs of this world getting involved, because they no longer know what the prices of things are. So you have this theme of responsible capitalism, where you are using the financial system to benefit, in this instance, useful price discovery and useful insurance against risk, and you are being undermined by a financialisation of the market and new players that are not really interested in the real price of what they are doing; it is about the direction of that price in that minute, in some instances.

David McNair: I think it is really important that we look at the fundamental drivers of food price volatility. It is also important that we look at the responses, given that it is happening and is likely to happen more frequently. What we have seen in our programmes and the evidence we have generated from those is that poor people tend to prioritise energy. So if the price of maize or a staple increases, they will try to purchase the same amount of maize, even though it is at a higher price. The more nutritious crops, which are essential for cognitive and physical development, are left aside. That makes it incredibly important that social protection mechanisms are in place to help poor people weather those storms and also to ensure their long-term resilience. What we have seen in the Sahel, which is a slightly different context, is that when food prices go up, poor people sell their productive assets—such as a goat—to buy food. That diminishes their resilience and, when the food price goes up in the next year, they do not have that productive asset to help them weather that. So social protection that is adequate for purchasing a nutritious diet is really crucial.

Patrick Mulvany: I agree with that. Look at some of the systems that people are coming back to in some parts of the world: barter. That is looking at ways of exchanging food and making sure they are able to better provision themselves. The relationship between family members in country areas and in urban areas is a very interesting thing to look at. That may be something that can be thought about and strengthened. There are examples of where this has had a very levelling effect on food supplies when there have been quite severe spikes.

Q35 Fiona O'Donnell: On the nutrition point: I really hope that fish cultivation will be part of it. It does not seem to be talked about very much—that is in village ponds and for children.

Patrick Mulvany: Exactly, on a small scale, not the investment in industrial aquaculture, which is another form of land grab or water grab. That small scale is absolutely important, and we are well advised by a wonderful organisation called the International Collective in Support of Fishworkers, which produces some excellent evidence on this very point, which I am happy to share with you.

Q36 Fiona O'Donnell: I was going to ask you what we need to do to try to prevent it, but I am really pleased that you came up with the solutions without being prompted and did not just focus on the problems. I just want to ask what your assessment on this is. Given the drought we have had in the States and Russia, do you think we are in for another food price spike?

David McNair: It is hard to say what will happen over the next year. It is quite clear to us that we are in a situation where, because of climate change and increasing population, food price volatility will be more common, whether that be at a regional level in the Sahel or globally. Therefore, we need to look at the policy changes we can make, both in the UK and in our leadership internationally, to mitigate that, whether that be sharing of information, dealing with the biofuels issue or dealing with food price speculation, and how we respond through social protection. That is an issue for security—we have seen food riots in the Arab Spring—but it is also something that I think we have a moral obligation to do: to protect those who are most vulnerable in the face of food price spikes.

Q37 Richard Burden: Could I ask you a little bit more about some of the institutions involved here? Right at the start, Patrick, you were talking about the role of the UN Committee on World Food Security. There has also been another initiative set up by the G8 at its summit last year: the New Alliance for Food Security and Nutrition, which the NGOs have been quite critical of. Could you translate some of that for us and tell us what is going on?

Patrick Mulvany: The way in which the renewal of the then-FAO Committee on World Food Security into this new UN body took place—and I and various colleagues were very much involved in that process—was supporting the majority of Governments who really wanted to see a democratic space in which the governance of food and nutrition could be debated and negotiated, and a global framework agreed. Indeed, in the last meeting of the CFS, the global strategic framework was agreed. That is an interesting document in its first version. The important point about that process was its nature of being totally inclusive. To start with it was inclusive of all Governments and, secondly, it was inclusive of all actors in the food system: from private sector, to NGOs, to social movements of food providers. They engage in the debate on an equal-footing basis. It is a dramatic and dynamic space to be in, where you see China, followed by Via Campesina, followed by the Fishworkers, followed by Algeria—or whatever it may be—in the debate. However, the Governments of the CFS take the decisions and are responsible for implementing those decisions.

During 2009 a previous version of the New Alliance, the Global Partnership for Agriculture, Food Security and Nutrition, was essentially seen off by the majority of Governments because they really did not like a little group of countries trying to dictate what should happen. Particularly not now. They have been very vocal about it, when that little group of countries sides with a large number of the world's global agri-business corporations. So it is not what is needed, not what is wanted and not what is being called for by those who provide most of the world's people with food. Strengthening the Committee on World Food Security and implementing things like the voluntary guidelines on land, as we have discussed before, and implementing the Global Strategic Framework and using that to govern all food and nutrition activities would be a very much stronger way forward. The other is a bit of a distraction and actually might perpetuate the same businesses as usual.

David McNair: Patrick is right that we need a forum that is democratic and can agree the broad parameters for how we govern the food system. I would not necessarily agree with Patrick on the other initiatives being a distraction. We need to take an approach that ensures democratic structures, but we also need to be quite pragmatic about how we get things done. I already raised the example of the G20's work on food price volatility, which has been incredibly positive. The G8 has done great work on investing in agriculture plans in the past, through investing in the L'Aquila commitments, for example. We think that the New Alliance certainly needs reform: it needs to be more accountable and more focused on country-owned plans, in line with what the global strategic framework outlines, which are their own principles around country ownership, co-ordination and taking this twin-track approach of dealing with hunger now and also investing in the long term. Those principles, which are agreed by the CFS, need to be implemented in various other fora, where you can actually make action happen.

Q38 Richard Burden: I guess that those involved in the alliance would say that it is based on country programmes. They would say that it is based on country programmes developed in Africa. You are talking about the small group of countries, Patrick. Are you talking essentially about the G8?

Patrick Mulvany: Correct.

Q39 Richard Burden: Or are you talking about those African countries?

Patrick Mulvany: It was the G8, and then there are six countries in Africa and a few more that could be brought into the programmes of the New Alliance. To go back to what I was saying, that the majority view from the majority of countries, through the Committee on World Food Security, is the one that really needs to be focused on. The danger is that too great an emphasis on the G8 and the New Alliance will enable them to do things that are not

governed properly by that other body I have mentioned, the CFS. The long-term danger of that is quite significant. The Alliance is informed more by leaders in countries that have been brought into that system, rather than the majority of food providers in those countries. There is a severe democratic deficit in that process.

Q40 Richard Burden: I know that none of you are from Tearfund, but they have entered the debate about this. They have said that there is actually an attempt by some UN member states to clip the wings of the CFS and keep it out of various issues relevant to food security. Trade and climate change are two of those. Is that the case? Is there any evidence that that is the case?

Patrick Mulvany: In the recent meeting of the CFS it was said that there was some evidence that there were attempts by certain parties to limit what could be done, particularly on climate change. There again, there is a danger that, if you have a global governance body on food security and nutrition and then, in terms of other parts of the UN system, allow them to rush off and do whatever they want on food security, it does not seem to be particularly helpful. I do a lot of work with the Convention on Biological Diversity and the same [need for coherence] is true there.

All parts of the UN system and indeed all Governments need to acknowledge the superior position of the Committee on World Food Security and try to do their very best to make it work effectively. There is a High Level Panel of Experts, and you will hear more about that in the next session, I am sure. They have done some very interesting reports, which indicate what could be done better. For example in climate change, moneys that are available could be invested much more into adaptation rather than mitigation, in support of local food provision. The important thing is to give what the majority of countries wish: to have that Committee on World Food Security as the dominant governance body on food and nutrition. That is, above all, one of the most important things. We also need to make sure of the inclusive nature of that body: including the views of the small-scale food providers' organisations themselves, is essential.

Q41 Richard Burden: Who is it that is trying to limit the remit?

Patrick Mulvany: I can provide you with some written evidence afterwards. I will suggest that there are some countries, not too far from the G8, who have not been as helpful as they might have been.

Max Lawson: Can I just add something on that point? It comes back to the point about the If campaign. The G8 works best when it gives life and muscle to much greater endeavours. That may be the Millennium Development Goals, debt cancellation or the fight against HIV/AIDS. That can really make a difference. It is about taking legitimate structures and giving them the boost and resources they require to work. That is about public investment. It is no surprise that you are seeing much greater focus from the G8 on private sector investment, partly because they think it is a good thing but partly because they want to distract from the main event, which is that they should be providing the aid that they promised. Britain stands alone as committing to its promises. At the G8 in Ireland we need to see the public investment that is required. That is what the G8 can do. Partly, the concern with the New Alliance is with the New Alliance itself, but it is also about the fact that it is, in some ways, a distraction from what the G8 can and should do when they meet in Ireland.

Chair: That is very helpful. Thank you very much. Apologies to the second panel; we have not forgotten about you. You have heard some of the discussion.

Can I thank all three of you on the first panel? As I said, this is the first session we have and you are raising questions as well as answers, so we have a lot to pursue. Thank you very much for doing so.

Examination of Witnesses

Witnesses: **Tim Lang**, Professor of Food Policy, City University, London, **Camilla Toulmin**, Director, International Institute for Environment and Development, and **Andrew Dorward**, Professor of Development Economics, School of Oriental and African Studies, gave evidence.

Q42 Chair: Thank you very much for coming in. I apologise for keeping you waiting but we had some questions to pursue. Can I ask you, formally, to introduce yourselves for the record?

Andrew Dorward: I am Andrew Dorward. I am from the School of Oriental and African Studies, University of London, and the Leverhulme Centre for Integrative Research on Agriculture and Health.

Camilla Toulmin: I am Camilla Toulmin. I am the Director of the International Institute for Environment and Development.

Tim Lang: I am Tim Lang, Professor of Food Policy at City University in the Centre for Food Policy. We focus on the rich world rather than international development.

Q43 Chair: Thank you all very much. You got a flavour of some of the questions in the previous session. The most obvious starting point is: what are the factors that affect the supply and demand situation for food? People have said that we have enough food in the world but we still have a lot of hungry people. Clearly there are inefficiencies there. Also, on the role of smallholders, which we have had quite a bit of discussion about, what are your views on how they fit into the problems of supply and demand or the solutions to those problems? Who wants to go first?

Camilla Toulmin: I am happy to do that. Forgive me, I came in overnight on a flight, so I am a bit crumpled both physically and mentally. There is obviously a lot of material on which you can base your inquiry. There is *Global Food and Farming Futures*, conducted by the UK Government's Foresight. As we heard in the previous session, the CFS has some excellent reports on a number of issues, including food price volatility. There is a very good piece there that recommends some controls on commodity trading to minimise some of the risks associated with that. There are also recommendations—which is the one I did, in fact—looking at agricultural investment and tenure, which comes up with a set of recommendations that would be worth looking at for the context of the G8 discussions. You will see a fair body of work highlighting what some of the causes and problems associated with food security might be.

I want to focus a bit on the different approaches that different agencies are taking, in particular the focus we are getting from a number of donors and foundations on the role of the private sector, and the view that you have to get large-scale private sector investment into agriculture, which was something that came up a bit earlier. While we feel that that does hold promise in some contexts, it is a bit exaggerated and it ignores a number of things, particularly the fact that smallholders are also private sector actors and invest very considerably in their production systems. We need to think not only about food production but about the broader rural economy within which food producers sit. We need to think about the role of the state in promoting broader rural development, which includes issues around

investment, infrastructure and irrigation—the basic, long-standing needs of the agricultural sector.

We have been talking about large-scale and small-scale producers. We tend to describe rural producers as a pyramid. There is a small group at the top, who are engaged in highly structured, formal market chains, but you have a big group at the bottom who are probably buying as much food as they grow, and then there are various intermediate levels. So thinking about that pyramid of different types of producers is important in terms of thinking about the needs and possibilities of each of them. A lot of our work has focused on identifying the limits to that formal sector involvement in marketing and the huge importance of the informal market chains that most food producers rely on. You mentioned the importance of subsistence production. I have never seen a farmer who is 100% subsistence. Normally there is some level of engagement in market and commercialisation of one sort or another.

The last point I want to flag up is that it was great to hear this discussion about land tenure. That is something I have been banging on about for the past 10 or 15 years. It is important to get recognition of local people's rights, not only to farmland but also, most importantly, to collective lands: pasture land, grazing, woodlands and water bodies. Those collective rights are terribly important, particularly for the pastoral community. There are secondary rights: women's rights, tenancy and sharecropping. There is a whole set of really important contracts and institutions that allow people access to land and that get swept aside by Government, very often, when they want that land for some other purpose. We see strengthening those rights to both individual and collective property as being critical, particularly looking forward and thinking about what is going to make for a more climate-resilient pattern of production.

Chair: We will pursue some of those things in other questions.

Andrew Dorward: I have a long list of things to talk about. One question I would ask is, when we are looking at food prices, whether we are looking at international food prices or national and local food prices. The two are often related but sometimes they are not. In some landlocked countries in Africa, domestic supply and demand are probably more important, certainly in the short term, than international prices. So we have to think both about the international situation and the situation in particular countries, which is going to vary in different ways from the international crisis.

In terms of the causes, one thing that I would have observed in the earlier discussion is that this food crisis has crept up on us. There has been a lot of debate about why no one, particularly economists, spotted the financial crisis. The same question comes up with the food crisis. Everyone said that food prices had been declining for years and years and years. No one spotted that, around about 2000, they bottomed out. From 2005 to 2005-06 they were flat; they were not declining. Then in 2007-08 we got this food spike. Since then we have been in a situation with these spikes and a higher bottom, if you like, below the spikes. I do not think that people noticed it—I did not—up until the crisis struck.

So, what caused it? A lack of investment and an assumption that things were okay was definitely there. There was a lack of investment in research and development and a lack of investment in agriculture, particularly by aid agencies. It was difficult, within the policies they were recommending, particularly for African Governments, for those Governments to invest in agriculture themselves. That was a set of policy issues. Then we had this biofuel thing coming up. My comment about this thing creeping up on us is partly a response to the question you were asking on that. There is no doubt that biofuels are important. Oil prices also contribute. Fertiliser prices were very high, although that followed the 2008 price spike to some extent. There is some loss of land, rising demand, and all of these things were basically tightening the market.

Then you get a weather shock; that causes the price spike, and that makes speculation attractive. I find it very difficult to say that a certain percentage was responsible for this or for that. Actually they interact. Nothing may happen. Speculation may have zero impact if you do not already have a tight market. If you have a tight market, speculation, whether it is physical speculation—holding stocks—or whether it is financial speculation—on which I have to confess I do not understand the debates, but they seem very mixed—would really not be such an issue. What we ought to be doing is looking at relieving the tight situation. That means that we need to think about production and we need to think about demand. On the production side, we move into a discussion about smallholders. On the demand side, Tim is a better person to speak than I, but I would put forward waste, particularly in the north, and excessive consumption of livestock products as two issues. Those are things that something could be done about, although they are challenging. The livestock consumption and the growing incomes of people in China, in particular, but all over the world, is also one of the contributors to the tightening situation.

With regard to smallholders, I have a couple of background points. First of all I would reiterate what Camilla was saying. There is a huge variation amongst smallholders; they are not just one uniform lot. In particular, at the expense of making my own huge generalisations, roughly 50% of smallholders in Africa are buyers of food. Then you have another 50% who may just produce enough or produce more than enough and are sellers into the market. So a lot of smallholders in Africa, and I understand that this is the same in India, are negatively affected by high food prices. That is something that we find difficult to imagine—that farmers do not find high food prices good—but it is the case for many farmers.

Q44 Chair: Because, on balance, they are buying more food than they would be selling.

Andrew Dorward: Yes. In fact very few buy and sell. The evidence is that only about 10% are sellers and then buyers. A much greater proportion just buy; they produce, it lasts for a few months, and then they start buying.

In terms of the debate between support to smallholders and support to larger holdings, first of all, I would draw another distinction within smallholders. There is a lot of emphasis just now in policy, particularly with an aspect of commercialisation, on the 50% of smallholders who are sellers, but not a lot is going on in international debates about what can be done with and for the 50% who are poor and net food buyers. They are much more challenging. Just coming in with commercial ideas is not going to work. I am not knocking the commercial work—I think that is very important and has a lot to offer—but we also have to think about the other half. We need to think about what their future is, and whether their future is in agriculture or whether there is some role for consolidation there.

In terms of looking at global food security, support to smallholders is absolutely critical. It is not just about the production, where large farms may be very good but smallholders can also be very good; it is also about the ability to afford the purchase of food—the access to it. If you just support large farms and do not support small farms, how are the poor smallholders going to afford to buy food? They need to have opportunities to raise their productivity so they can either buy food or produce their own. This is an extremely important issue when we think about the large/small farm debate. We have to think about the ability of small farmers to afford food if it is to be produced by others. That is a very challenging issue.

Tim Lang: We are getting into serious waters. I am going to be, I hope, not contrarian but say that some of us did see it coming, but it was a very, very, very unfashionable view. I was a member of the Chatham House inquiry, which was sitting, and we could not get anyone from the British state other than the Ministry of Defence to join in. Then, when the price

spike happened, they were all crowding in. The reason was very simple. This was the new, radical argument, which we called the new fundamentals, which said that, by looking at the rich world, not the developing world, you see a model of agriculture, food production, distribution and consumption that is unsustainable. The argument had partly been a very arcane debate about what sustainability is and partly it was a very philosophical debate about progress. Essentially, here we are in a building that symbolises it. From the 1840s, with the repeal of the Corn Laws in 1846, the decision was made by the British state that, essentially, they did not need agriculture. It did not really kick in until the late 19th century, when technology came in and you could import lamb cheaper from New Zealand—in 1882, when the first ship, the Dunedin, came in—and take it up the Manchester Ship Canal than you could get lamb from where I used to farm, the Bowland Fells of Lancashire. Then, for the entire 20th century we had an experiment with what in my world we call productionism. That is a belief that, just by producing more, you would resolve the problems of Malthus: that there would not be enough food to feed the population.

This productionist thinking was utterly, brilliantly refined, again, here in Britain. We were leaders of it, not just because of empire and colonies but because there was big thinking about it and big scientific investment. It was very simple. It said that, by investing in science and technology with distribution and capital investment, you could massively increase outputs of production. But by the 1970s, 1980s and 1990s, that model was itself coming into some difficulty regarding the environment and public health. The evidence coming from over-consumption and the rise of non-communicable diseases was coming into public health, not agriculture, because they were not interested in it. Over-consumption and mal-consumption were causing the problems that the NHS is now almost bankrupted by. Getting a grip of this enormous new agenda at the end of the 20th century has been an enormously complicated intellectual process. Frankly, no one has been doing it—or very few people have been doing it.

By the end of the 1990s and the 2000s, there were people beginning to do it. My colleagues and I were some of those. There were a lot around the world, but politically and in policy terms they were utterly marginal. When the oil price spike hit in 2007, you suddenly saw what we had seen in the early 1970s, which was that, when oil prices go up, food prices go up. The assumption from the economists was that it would carry on going down. The new fundamental theorists, and I include myself in that group, said that it would not, because we have biodiversity and all the things the previous panel were talking about. There is a squeeze on biodiversity, rocketing population, rocketing resource use and rocketing urbanisation. In other words, the context within which the brilliance of the new productionist policy paradigm had made sense was no longer the world it needed to address. So this is big-league thinking. It is about what we mean by progress, what we mean by development, for whom and what the role is within it.

Now, let me be very clear about a number of things; then I will stop, and you can ask us more questions. Essentially it is about bringing down the price of food from 50% or 60% of disposable income in developing countries. We had that in the 19th century. Indeed, we had 30% of disposable income going on food here in this country only 60 or 70 years ago. It is progress to bring down the price of food, but it was done by mining the earth and it was done by squeezing it. One can think of it as a rubber ball being squeezed. That is, essentially, the difficult we have now: how do ecosystems and we, this predatory human species, mix for the future?

So I nail my colours very firmly to the mast. When I was a Government Commissioner on the Sustainable Development Commission—which, for various reasons, the coalition abolished; I think it was a shame—this thinking was personified by the SDC and also the Royal Commission on Environmental Pollution, which is another body that was

abolished. The thinking was that you cannot have a notion of food security for the 21st century unless it is entirely about sustainability. The only argument then is: what do we mean by sustainability and how tightly can we define it?

So, to answer your first question about views on food security, the classical model about food security said that, for urban, dependent populations it is about the three As: affordability, availability and access. The purpose of public policy, private policy and all these different methods is just pouring out production so that it meets the three As of affordability, availability and accessibility. In the 21st century, that no longer fits. That is the problem we have and that is why your inquiry is a very important one.

So, we actually have lots of different models being put on the table. One of the things I would like your inquiry report to do—I know they are always elegant—is tease out the different models and interpretations of what the future is. My view is, for different reasons that I am sure we can come to, do not get caught up on thinking it is just about more production. There is plenty of food to feed the world right now. There may not be in 2050. There is an over-production and over-consumption problem alongside mal-consumption and under-consumption.

To answer your question, Sir Malcolm, the reasons for hunger in any country, whether it is elite hunger and under-consumption or whether it is absolute hunger, are to do with income, affordability, a sense of rights, culture and skills. There is a whole complex array of factors that really determine who eats and who does not. What your inquiry is about, it seems to me, is what big framework we want. Look at where the previous panel ended up: all these organisations cropping up, emerging, experimenting and being created by companies, company partnerships with Government, high or low level, NGOs, and the reformed Committee on World Food Security. There is an explosion of institutions, all trying to compete for the fact that we do not have a clear framework. I have not come from Australia, like poor Camilla, feeling physically on the edge, but last night I was in Oxford giving a big lecture, where I was calling for us to go back to Hot Springs. We need a new, big, global consensus and we do not have it. We do not have it for the 21st century, and we will have a mess in policy terms until we have that.

Chair: I guess I asked for that.

Tim Lang: You did. You should not have asked me.

Chair: All three of you have given us very broad and extremely interesting analyses of the range of complex problems. We now need to drill down with some more specific questions. Perhaps the answers need to be slightly crisper, otherwise we might be here all afternoon, but that was a very interesting introduction.

Q45 Fiona O'Donnell: I was thinking about what you said, Tim, about what our report should be and about that framework. Part of it could be about infrastructure. The Institute of Civil Engineers has recently produced a toolkit for the developing world, which reminds us of the importance of infrastructure. I wonder if I could ask how important you think that is, each of you, in terms of food security and what the Department for International Development should actually be focusing on. Camilla, you mentioned irrigation; is it also roads or storage, which is often a problem in countries? Climate change is having such an impact because they do not have those facilities. What do you think the infrastructure priorities should be?

Tim Lang: I will be very quick on this one. It follows from the big picture that we three were all giving in different ways. There are different needs for infrastructure for different levels of income of country. If you look at Britain, which I study in the rich world, we have zillions, billions and trillions of investment in highly sophisticated forms of storage, called motorways. We do not store, actually, it is all on the motorway. We have a just-in-

time system of food. Now, go to Malawi, where I have a PhD student, and it is a totally different world. There needs to be investment in roads and storage. That couples with something that Andrew raised about waste and the problems of waste. My colleagues and I contributed to the UNEP report, which is one of the many reports that have been coming out since the price spike. There are different forms of waste in the rich world and poor world. We need to have on farm, close to farm, investment in skills, storage capacity building. That is a major priority.

The Gustafson FAO report, which I recommend to you, came out in 2011; it is a magisterial review of the issue of waste, and if you have not read it, do. It is, blessedly, quite short. That points out that we have a world in which there are different forms of waste in different levels of development. We waste 30% but it is after consumption. We have different contracts and specifications creating structured waste in our rich world. In the poor world the waste takes a very different form and is much more like what we had in the 18th century in this country. So infrastructure, yes, but it will be very different in different places, I think. Camilla will put me right.

Camilla Toulmin: I could never put you right, Tim. On infrastructure it is important to say that there are two different kinds. There is tangible and intangible. Investing in tangible infrastructure makes a lot of sense in terms of transport and irrigation. Much of Africa has water potentially available but it needs investment to bring it to the surface. There is some brilliant work done by the British Geological Survey that shows these massive amounts of water that could be tapped. What is missing is the means to bring it to the surface and to shift irrigation schemes from wasteful furrow irrigation to much more drop irrigation. It is also important to say that, while you can have these very big schemes, there is also a lot of mileage in much smaller scale rainwater harvesting and catchment activities as well. There is dramatic work in the West African Sahel that shows what can be achieved by those small-scale schemes.

Some of that investment is private sector, like ICT and mobile phones. Governments did nothing and aid agencies did nothing to help generate this incredible spread of mobile phones, yet they are everywhere and they are a really important market tool for farmers and pastoralists.

On the intangible side, there is a whole set of investments that can be made in the social infrastructure, in terms of farmer associations and ways in which people can secure their rights in land. The intangible institutions also need investment. Finally, you need investment in research infrastructure. There has been a tendency for agricultural research, certainly in many developed countries, to rely very much on the private sector. If you are looking at trying to get sustainable intensification, which very often means using less input, rather than more, there is no real, strong commercial advantage in researching techniques that then mean you sell less of your product. So there is a very strong argument for public-sector investment in trying to develop more sustainable patterns of farming.

Andrew Dorward: I am going to be shortest of all and say that we have had a really good summary.

Q46 Hugh Bayley: What could DFID be doing on climate change adaptation?

Camilla Toulmin: What they are already doing. Certainly, judging by the work we are doing with them in Northern Kenya, they are adopting an approach that is very much bottom up and trying to work alongside local government. It is really only at that local level, working with communities, that you can determine what is going to make sense in terms of patterns of water and land management and the strengthening of the local institutions that can make that possible. DFID has a pretty good record on some of its practical work in the field, from which you could learn, but you should encourage them to do more of it.

Q47 Hugh Bayley: What about internationally mobilising action on climate change? Does the UK have a particular role?

Camilla Toulmin: The UK has a very important role because it is one of the big three within Europe who are really articulating a strong, progressive view on climate change. It is really important that we be seen to do domestically what needs to happen more broadly, globally. I would be a bit worried if we start to get a wobble on the Climate Change Act and the commitments we are meant to be firming up, looking ahead. At a time when Obama might be trying to bring the US slightly more on track with a global regime, we need as many progressive Governments to be saying that this stuff really matters and it matters now.

Andrew Dorward: I am not going to say much, but I will again be very boring and agree with what Camilla has just been saying. I would like to stress that, if you are looking at global food security, climate change is a huge issue. It just seems to me that the more news we get, it gets worse on two fronts. One is that it is happening faster than we expected, and the other is that its impacts are worse than we expected. That applies, definitely, in agricultural production and it applies, particularly, to agricultural production in the tropics, which is where the biggest global food insecurity problems are. It is a very serious problem. Adaptation is very important, but mitigation in the north is absolutely critical too.

Tim Lang: I am glad Andrew followed Camilla on that. I have been discussing this with people at DFID, and I think there is a practical issue that is not being addressed, which DFID could engage with: what is a good diet; what is the purpose of agriculture; and what is food production aiming for? In the developing world, if I don my public health hat, we see a terrifying complexity emerging, where you have a spread of non-communicable diseases in countries that have poverty and hunger, side by side. It is not massive but, in sub-Saharan Africa, obesity is 5%. I am nervous about DFID, for very honourable reasons, being locked into an old-style productionist model. If there is one thing that is waking up and stopping that, it is climate change. But climate change is not just on its own. It is coupled with biodiversity and ecosystem threats. It is coupled with water scarcity and the difficulties Camilla was referring to with irrigation.

One of the things that DFID needs to do for the medium term—it is not urgent now—is get abreast of the debate that is roaring about sustainable diets. We need to shift the public health template, which has been driving productionism since the 1930s and 1940s, into a better integration of environment and health. There are some very interesting developments. The FAO, Biodiversity International, which Patrick Mulvany was referring to in the previous panel, and others—companies—are beginning to engage with the question: what is a low-impact, low-carbon diet? What does it look like? Is it different in Malawi from Kenya or Thailand? That is a complicated issue, and DFID needs to get its head around that. It may seem an abstract problem, but it is not going to be in 10 years' time.

Q48 Hugh Bayley: I agree strongly with Andrew that the climate challenge is a growing challenge. It seems to me to be a few years since Nicholas Stern was setting out the cost-investment scenarios that would be necessary to limit global average temperature rises to two degrees. The World Bank is now working on the presumption of three degrees.

Tim Lang: Forgive me for interrupting you, but six degrees seemed completely inconceivable 10 years ago but is now possible. If you talk to people at the IPCC, it is possible, and 4% is looking very likely now, unless something really serious happens. I do not know about my colleagues, but the nightmare for me is that you get serious shock, not just of an oil-price-spike type but serious ecosystem and population shocks.

Q49 Hugh Bayley: The core argument in Stern was that, if you invest in mitigation and adaptation earlier, you can reduce the cost.

Tim Lang: It pays off later, yes.

Q50 Hugh Bayley: Even if the World Bank is right and it will plateau at three degrees, it would be more costly to adapt than mitigate. I will ask that as a question: is that right? If a plateau is at four degrees or five degrees, will it be more costly still?

Tim Lang: It depends how you calculate the costs. Let me maintain the public health hat, which I wear partly, and mention the recent *Global Burden of Disease Study 2010* report, which maybe Andrew will know. That showed how the range of diseases is adding a burden on health care. The burden is not just about climate change, soil and ecosystems. It is about health care costs. When the temperature goes up, people die for other reasons.

Camilla Toulmin: Nick Stern at Davos said, "Oops, I made a mistake; it is happening faster and being more damaging than I had in my report." That is to say, the costs of doing nothing are rising rapidly. A lot of his argument was about what kind of discount rate you should use. Should you discount what happens in 10 years' time because, hey, it is 10 years away?

Q51 Hugh Bayley: The basic argument is: the later you leave it, the greater the cost in disease, cost of food and so on.

Camilla Toulmin: The greater the cost, but also the steeper the curve that investment costs have to be as well. So it is a double whammy either way.

Tim Lang: Also, the steeper the curve of the crisis falling off a cliff.

Andrew Dorward: Most of the IPCC predictions are based on average scenarios. We have seen in the past few years these weather shocks in different parts of the world. There is increasing recognition of the importance of shocks. There is an increasing probability of high temperature and drought weather shocks. I was reading a paper yesterday by Hansen on this. We can now say, with a pretty firm degree of confidence, that the increased number of high temperature drought weather shocks we have had in the world in the past few years are related to and caused by climate change. We have tended to have one every other year for the past three or four years. What happens if we get two in the same year? Are we then into a real crisis? Tim has been saying that it is not about production.

Tim Lang: Not only about production.

Andrew Dorward: Exactly. Production is still exceedingly important. If we suddenly get a big hit, say in the US and in Russia in the same year, what is going to happen? I think it will shoot up the British political agenda really fast, but the damage that will be caused in other parts of the world will be awful.

Q52 Hugh Bayley: The World Bank is promoting soil carbon markets. Can these contribute to food security? What do they do in terms of responding to climate change? Is offsetting an important goal?

Camilla Toulmin: It is a potentially important way of trying to get carbon out of the atmosphere, but there are big problems in terms of measuring the change of status of carbon in soils, which would allow you to then have a one-to-one payment for that increase in carbon. What is more likely to be a better way forward would be to reward farmers for changes in land use practices that act as a proxy for that improvement in carbon sequestration. You get some of the same problems as you have had with REDD—reduced emissions from deforestation and forest degradation—tropical forest schemes. Once you start putting a price tag on a piece of land, you need to make sure you have the rights and institutions around that

land fairly clear. So it brings you back to the tenure issue as well. Getting more carbon into soils is a thoroughly good idea.

Tim Lang: I think everyone agrees on that. I am nervous about marketisation. I am not against it—how can one be?—but I am nervous that policy focuses on it. Just look at the mess of the European trading system. It has not worked. We have a problem of time. I would ask you to ask of those who favour that sort of approach how clear they are about the mechanisms—whether it could be done in time and if it will be effective. It seems to me that reducing carbon to price misses the point. We have to have skills transfer, capacity building, helping smallholders and indeed big farmers here. Can I bring us back to here? We are bad role models in our farming. We have to retrain them. We need new generations of agricultural extension services. Just to say that the market will resolve it hands it over to the city slickers. God spare us is all I can say. One needs to have very clear criteria for how such a market system would work. So carbon pricing is fine in an ideal world. Would I put all my faith in it? I would not.

Q53 Richard Burden: You probably heard the discussion we had about biofuels with the previous panel. Could we have your perspectives on this, first of all in relation to both UK and European targets? Should they be scrapped? To some extent, even if they are, if the oil price is high, is the genie out of the bottle with biofuels anyway? Will the demand keep rising? If it is, what do we do about that?

Andrew Dorward: I think there is pretty well a consensus that those mandates are a bad thing. The savings in carbon are relatively small; the savings in terms of production in Europe are relatively small. Generally speaking, ethanol is pretty efficient from sugar, but from maize and with biodiesel from northern oil seeds, it is not very efficient; you do not save much carbon in the production process. When you then begin to factor in the impact on the prices and the impact of those prices, on the one side, on food, and on cultivation of oil palm and the felling of tropical forests on the other, you are into seriously negative impacts. Is there anything that so many international organisations have agreed on? We had the FAO, the OECD and the World Bank—I do not know who else was involved in that report—all agreeing, but that did not swing the G8's decisions. It is almost unique for them all to agree on something quite so strongly. That shows the strength of the consensus.

Tim Lang: That was because the 20th-century version of progress required energy ad libitum. We have a problem; we are locked into a high-energy mode of living. Where is energy from? It is from different forms of the biosphere, unless we turn to wind power and sea power. Then it is expensive because of the capital investment. I am not disagreeing at all with what Andrew said. There is agreement that biofuels have been a serious disruption to production, to prices, to markets and to land use. But if we do not get our energy from nuclear power, which is hugely wasteful and hugely expensive in its legacy when I see it here in Cumbria—and rightly so; it is good that has come out—where is energy from? You have to have low-carbon, low-energy lifestyles. When you eat like the British, who eat as though there are two or three planets, or like the Americans, who eat as if there are four or five planets, this is an energy-dense way of eating. So, we have to radically alter this. It comes back to my sore on sustainable diets. We have to have a different version of what a good diet is and the shape of it, and where it is going as progress.

So, the biofuels issue illustrates this bigger picture of: what is a good future, what is good agriculture and what is good land use? I cannot but see that good land use is multifunctional. What we have done is encourage farmers to switch from food to fuel. Is it possible to get much more sophisticated ways of delivering both out of land use? That is actually what the goal should be. The reports that Andrew was referring to, in unanimity,

were in horror at the rapid change that the G8 had encouraged in their home markets. It was not the goal of multifunctionality.

Q54 Chair: Professor Dorward said that these were very inefficient ways of producing fuel and do not save much carbon, but are there by-products of food that can be productive in terms of producing biofuel? What we are talking about is actually growing crops specifically for biofuel, as opposed to using the by-products.

Camilla Toulmin: That is the Holy Grail. At the moment we are stuck with crops like sugar, which actually can produce ethanol at a reasonable carbon balance, and a whole set of other food crops, like maize and palm oil, where it seems madness. Then you have this second-generation cellulosic ethanol that everybody talks about, but we do not seem to have got to it yet. If there was a way in which we could use by-products or woody material of one sort or another to generate some form of ethanol or diesel that we could use, then that would be great. However, it is not getting anywhere closer so far as I can see it. It is always eight to 10 years ahead.

Q55 Richard Burden: If I understood what you were saying before correctly, sugar is a case on its own. If you were chasing the production of biofuels that did not particularly compete or undermine food production or food availability, perhaps you will not end up with things that have that problem, but they are not going to be very carbon efficient either.

Andrew Dorward: If you go for the cellulose approach, the Holy Grail is a mobile, light energy carrier—something like petrol. That is the Holy Grail. There is land that is not very productive in a tangible sense—in the traditional conceptualisation of production. Then the question is: can you bring more energy production into the multifunctionality that you have been talking about, where you do not lose the contributions, for example, in water or in biodiversity that we often overlook because they are not so tangible? There are possibilities there.

Can I introduce two things? One is directly related to this and the other is to broaden this slightly. The first is that there is the issue of whether carrying food stocks is a good thing or not, in terms of stabilising prices. One idea that is floated is whether there is a possibility of having some food stock or land that is allocated on a temporary basis to biofuel production or to animal feed production, for example, that, if food prices for human consumption go up dramatically, can then be switched into food production for humans. So, there are potential synergies there, which can be drawn on and developed, again, if one has a more multifunctional view.

More broadly, to emphasise some of the big picture questions, there is a huge emphasis in our global discussions about food security on productivity, in terms of productivity per unit of land. Actually, what is most important is productivity per person. Productivity per person is a big challenge, because we have raised productivity per person hugely by substituting human labour with fossil fuels, both in terms of fertilisers and mechanisation. We have also had straight technical change in terms of innovation, and we still have that, except a lot of what we have learned in the past has been directed towards systems powered by fossil fuels. What we need now, in the context of trying to reduce our dependence on energy, is to keep and, if possible, raise—certainly raise in poorer countries and poorer systems of agriculture—the productivity of labour in agriculture, even though in Africa we have to increase our use of fertiliser to some extent, because we are just mining the soils there. But we have a big challenge: we have got to raise agricultural labour productivity, because that is what the prosperity that we enjoy is based on. At the same time, we have to reduce our reliance on fossil fuels, and it is a big double challenge. Sorry, that was slightly off the wall, but I think it is an important point.

Tim Lang: I agree with you. We are talking about redefining efficiency. The capital efficiency model has dominated. We have got to talk about ecological efficiency alongside human efficiency, and that is what we have not got. That is the framework that is not in place not just here in DFID but in the west or in the developing world. That is what, in a little way, I was referring to. Hot Springs was three weeks of meetings; it was not two days of prime ministers and presidents jetting in to have their photo shoot and then leaving. For three weeks, they hammered away at the vision for the future, and this issue, which Andrew has put like that, is one of the key issues. What is efficiency? How do we have capital efficiency and human labour efficiency alongside ecological efficiency? At the moment we have got different models.

Andrew Dorward: Discussions of ecologically efficient agriculture normally do not mention the productivity of labour; they only look at the efficiency in terms of ecological functions and land. If it is not efficient in the use of labour, it is not acceptable as a development and as a food security strategy.

Chair: These are all very interesting ideas. We have a few minutes but two or three more questions, because we have a meeting with French parliamentarians following this one.

Q56 Hugh Bayley: You heard the discussion we had with the previous panel about large-scale land acquisitions. Is there anything you would want to add about the scale of the problem in Africa? For example, is it a continent-wide problem?

Camilla Toulmin: I have got various things that I can give you on this. There are various things to say. One is that the picture varies greatly from country to country. In some countries it is large-scale investment coming from elsewhere. In other countries the domestic land acquisition is a far larger part of the picture. It is a pressure on land that is only likely to increase; there is no reason to see it diminished. We are likely to see more and more of these problems coming up. There are two principle problems: one is the huge asymmetry in power between the investor and Government and between Government and local people. This means that the people at the bottom of that chain tend to lose out. The other problem is that it is all happening in a very non-transparent fashion. As a consequence, that allows for very poor governance and very poor decisions being made about what are national assets.

Q57 Hugh Bayley: If there are documents or papers you can send on this issue, that would be good.

Camilla Toulmin: I will do that. One really quick thing is that, of course, for some crops it is actually a big help to have investment in some part of the chain, so that, rather than buy the land, you want somebody to come in and build the sugar-processing plant or the oil-processing plant. Very often, inward investment can be really helpful if it is upstream or downstream of the farmer.

Q58 Hugh Bayley: For a couple of decades, the Washington Consensus persuaded the World Bank and others that spending public money on food stocks was a bad use of money. Interestingly, the last time Bob Zoellick sat before this committee, he was tiptoeing away from that argument. He was saying that it was important in areas of food risk fragility to position some buffer stocks, and it seemed to me that a change was afoot. What is your view? Are food stocks an important way of damping down food price spikes? If so, who should hold the stocks? Should they be held by nations or by an international body like the FAO?

Andrew Dorward: I do not have a straight answer, I am afraid. I am an economist and an academic, so you cannot expect a straight answer from me. There are huge problems with managing food stocks. They can be very inefficient. There can be huge losses. They can be

very expensive. However, there is no doubt that, going back to the point I made right at the beginning, if you have food stocks, then the markets are going to be less tight and you do not have to worry so much about speculation. There are lots of theoretical benefits. There are theories that trying to manage price bands in food stocks is very difficult, and experience suggests that is the case. So there are then questions about how you manage food stocks. Do you manage them with price bands or, if you are not going to manage them with price bands or price floors, how do you manage them? There are practical questions about how you turn them over to make sure you do not get large losses and so on.

Having said that, if you are a landlocked country in Africa and you have a food crisis or a production problem, then even if you are going to rely on imports, it takes time to get those. What is going to keep you going during that time? So, food stocks can be very important there in terms of getting access to the world market when you have a national, domestic problem. You may then want to combine that with financial things like options, which allow you to buy the right to buy at a certain price, rather than at the market price at that time. Obviously, you will win and lose on those at different times.

Camilla Toulmin: One of the issues we have not touched on that relates to this is urban food security. Most of the population growth in the developing world over the next 20 or 30 years is going to be in the middle-sized and large cities of the developing world. It is critical to think about how you assure plentiful supplies, deal with price volatility and ensure some kind of social protection network for the poorest people within those cities. The Brazilian Government and a number of others can show good examples of this.

Tim Lang: That is well said. I was going to make exactly that point. A second point I would like to make is that the debate about food stocks was seen as old-style economics. Modernity was Tesco-world—just in time. But as we found in the Chatham House report process from 2005 onwards, this is highly fragile. As a Minister told me after our lorry strike here in Britain in 2000, we were three days from closure, with just 1,000 lorry drivers striking. So, the other end of this debate about food stocks, and whether they are a good or bad thing for developing-world, low-income countries' food security, is whether we should offset it or juxtapose it against the fantasy world that we have been living in, which is actually a parasitic world. Britain does not feed itself but is lecturing others on how to feed themselves.

Chair: We used to.

Andrew Dorward: The other point on that is the question of whether you are going for concentrated ones that are centrally managed or encouraging distributed stocks, held by farmers and held by consumers. The point that Tim has just made is that the distributed stocks are really important. If you rely too much on central stocks, you are very fragile.

Tim Lang: It is centralised control. My focus on Tesco-world is that you have massive power and concentration. You may not have speculation but you have got a new baronial class operating. You do not want that. That is why in the 1940s settlement, the big thinking that went on then was about having publicly accountable bodies. That was the idea of the FAO. That was the idea of creating the World Food Programme. That is why they were responsible for food stocks. So, in your deliberations, in whatever conclusion you come to—and we are hearing approval for food stocks, in that they should come back as an idea—the issues are how is it managed, for whom, accountable to whom and where? Going back to food security and sustainability, it comes not from concentration; it comes from decentralisation—spreading where those stocks are and spreading what the stocks are in. The obsession of the 1940s settlement was all around grains.

Q59 Fiona O'Donnell: The other part of that is about waste as well, and we have recently had the report. If we tackle waste at home, what impact can that have? How do we

sell that to people? It is not just about consumers. It is also about people like Tesco, who in my area send their food waste to landfills. So, it is a double whammy. How could that help the situation in developing countries? Do we have a Government that can work together to deliver something for us at home? I would like to ask you in particular, Tim, about the Foresight report, which made a number of recommendations as to how waste might be reduced. It talked about productive recycling, and I just wondered what your thoughts were on those recommendations. But generally, in the time we have got left, what comments do you have about food waste?

Tim Lang: Let me stick to food waste. I was saying in an earlier remark that we need to be clear that there are different forms of waste. There is a moralism around waste—that we all do not like it. But it takes different forms in different circumstances and at different economic levels of development. Another distinction one needs to make, and I am thinking about the policies on waste and what we need to do about it, is that there is overt waste and there is systematic waste. What we have is a model of systematic waste here in the West, where the contracts and specifications of the big retailers and the big traders—like Tesco, though I do not want to demonise them—actually structure waste. They will not accept, through quality controls, some foods in. We have now a very difficult approach, and there is actually a mismatch between what we now know about the different forms of waste and the mechanisms that we apply to deal with them. The last Government focused here in Britain on trying to energise consumer consciousness around those, which was the role of WRAP, the Waste and Resources Action Plan. This was, at one level, quite effective, but it has not brought it down from 30% to 0%.

Q60 Fiona O'Donnell: Should we set a target? We have targets for carbon and other areas.

Tim Lang: We need a different template. I have sent Rob Page two papers that my colleagues and I recently published, one in January and one in December last year, which give the thoughts from our centre on this. We think there is a different template that we should be aiming for within food security policy.

Camilla Toulmin: Tim has been focusing very much on waste here. You can see a parallel level of waste happening in many developing countries between field and market, where you may lose 30% or 40%.

Q61 Fiona O'Donnell: Why does that happen?

Camilla Toulmin: When you get tomatoes to market, they arrive in a mush. It is infrastructure, processing and better transport, essentially.

Andrew Dorward: It is also market information, so people come to buy it when it is still fresh.

Q62 Fiona O'Donnell: Finally, as carnivores, can we keep consuming meat in the way that we are? It is probably a rhetorical question.

Tim Lang: Is the "we" here? Do you mean us?

Fiona O'Donnell: Yes.

Tim Lang: The rich world, no. Let me be very hard, and I will speak now as a public health man. The case for reducing meat consumption in the West from our astronomic levels is overwhelming; it is a public health gain if you reduce it. The report that I led and that Oxford University and others fed into, on food security and sustainability and on sustainable diets, showed that there is a win-win for the environment and for public health if you reduce our meat consumption. It is not meat qua meat; it is processed meat. The evidence there is getting stronger and stronger.

Camilla Toulmin: It is also intensive livestock production.

Tim Lang: Exactly. You will get agreement from us. In our world, the three of us and the previous panel, we are worried about this assumption that 50% of grain or 40% of grain to the world must be diverted down the throats of animals to then give us meat. There are cases when that can be useful, depending on the climate. To factor in a meat engine, which is like a juggernaut driving our definition of what a good food system is, is crazy. It is a crazy use of resources, it is crazy economics and it is crazy public health.

Andrew Dorward: Can I just add two things to that? Firstly, I would broaden it to livestock production. For example, butter is not very good for us either and eating too much cheese makes for the same sorts of problems. In terms of livestock production, it is basically the consumption of grains in intensive systems that is bad. Where you have more extensive systems, where you have pastoral systems and where you have more extensive upland systems in the UK, it is a different argument. For the intensive grain systems, the health and the environment, the food security and the water demand arguments are really overwhelming.

Q63 Fiona O'Donnell: Do you think the market price will choke off demand for meat? There is only so much horse meat you can put into a burger.

Tim Lang: You are back to a mass psychological problem. Meat has, historically, been associated with progress and feast days. The problem is that feast days are every day. Wearing different hats, let us just move to horse-burger land. Look at what is exposed there. You have got a culture that is now centred around plentiful meat and meat as the centre of the plate. These are deeply rooted—in different ways in different countries—cultural goals.

Camilla Toulmin: You are right that meat is too cheap. Meat production does not, in fact, cover the full costs of production. Until it does that, we are going to see too much of it around.

Q64 Fiona O'Donnell: We would almost be heading towards a vegan diet then for a lot of people, especially poorer people, in order to be healthier. Are we doing enough work to look at how we then should have a nutritious balance and how we produce it?

Tim Lang: The short answer is: no. I referred very early on to this issue of sustainable diets. There is a bubbling debate. I could spend my whole week, like Camilla, in the air going to meetings—they are cropping up everywhere. Last week I was in a one-day meeting, though I was only there for half a day, where experts from all over the country were brought in. I will quote, without naming, a leading nutritionist, who said, "Look, veganism can deliver a sustainable diet and can deliver a healthier diet, but the issue is culture and choice." Without a shadow of a doubt, the ubiquity and cheapness of meat and meat products, as a goal for progress for Western agriculture, let alone developing world agriculture, is one we have to seriously question now for reasons of climate change, emissions, ecosystems and local reasons. Many of us in this debate referred to the Steinfeld et al./FAO's *Livestock's Long Shadow* report. This month, the new version of that report is going to come out, so I strongly recommend the committee has a look at that. I am not allowed to say what is in it.

Andrew Dorward: This is something we all personally need to take very seriously, because it starts with us, not with telling policymakers what to do.

Fiona O'Donnell: I will take that away, if nothing else, from today.

Camilla Toulmin: In 20 years' time we will look back at it in the same way as we now look back at smoking as it was 20 years ago.

Q65 Chair: I am not quite sure what I am going to tell my beef farmers, but I will think about it.

Camilla Toulmin: Expensive, lovely Aberdeen Angus—

Tim Lang: Has its role. They are doing a fantastic job. I am an ex-sheep farmer on the Lancashire Fells. If you want to keep carbon in those soils, or in Snowdonia, then use sheep or plant them with trees. So, there is a strong case.

Q66 Chair: That is a helpful last word.
Tim Lang: It depends on how they are fed—so long as they are grass-fed and not grain-fed.

Q67 Chair: Thank you very much. That was a fascinating contribution to our inquiries, and there are a lot of lines for us to pursue. If you can send us some of the material you have mentioned that you have not already sent, that would also be appreciated. Thanks, all three of you, very much indeed.
Tim Lang: Good luck with your report.
Andrew Dorward: Yes, it is very important.
Camilla Toulmin: You are going to be travelling to Ethiopia, is that right?
Chair: We are in a couple of weeks.
Camilla Toulmin: If you still have space in your diary when you are there, we can think of one or two people you should contact.
Chair: Well, there is still time for that; yes, please.