



Select Committee on Food, Poverty, Health and the Environment

Corrected oral evidence: Food, Poverty, Health and the Environment

Tuesday 25 February 2020

11.40 am

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Members present: Lord Krebs (The Chair); Baroness Boycott; The Earl of Caithness; Lord Empey; Baroness Osamor; Baroness Parminter; Baroness Ritchie of Downpatrick; Baroness Sanderson of Welton; Baroness Sater; Lord Whitty.

Evidence Session No. 11

Heard in Public

Questions 80 - 87

Witnesses

I: Kath Dalmeny, Chief Executive, Sustain; Professor Sir Charles Godfray, Director of Oxford Martin Programme on the Future of Food; Professor Tim Benton, Director, Energy, Environment and Resources Programme, Chatham House.

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Examination of witnesses

Kath Dalmeny, Professor Sir Charles Godfray and Professor Tim Benton.

Q80 The Chair: I welcome our witness panel to this evidence session in our inquiry into food, poverty, health and the environment. We are very grateful to you for coming to share your experience and views with us. In a moment, I shall invite each of you briefly to introduce yourselves for the record before we move into the questioning. The session is being broadcast on the Parliament web channel. The interests of members of the Committee that have been declared in relation to this inquiry are available for anybody who is in the audience. Without further ado, I invite you to introduce yourselves.

Professor Sir Charles Godfray: Good morning. I am director of the Oxford Martin School at Oxford University. I run the future of food programme at the university.

Professor Tim Benton: I am research director in emerging risks and director of the energy environment resources programme at Chatham House. I am a research professor at the University of Leeds.

Kath Dalmeny: I am chief executive of Sustain, which is an alliance of food and farming organisations interested in all the issues that you are discussing on this Committee.

The Chair: The focus of this session is sustainability of the food system but, reflecting on the purpose of our inquiry, also to look at sustainability in the context of inequalities and poverty in relation to food in this country. We are going to focus very much on what is meant by sustainability, and I would like to kick off by asking you that question. What do you mean by a sustainable food system? What should we be aiming for? Does it involve dietary change? Related to that, is it possible or desirable for the UK to be increasingly self-sufficient in food production? Is that part of sustainability?

Professor Sir Charles Godfray: We can define sustainability in different ways. A straightforward way is environmental, producing food in a way that does not undermine the capacity to produce food in the future. We can expand it a bit. A good modern way of thinking about sustainable food systems would be food systems that are consistent with sustainable development goals. Those bring in some of the non-environmental components.

Much must be done to make food systems sustainable. That includes difficult questions such as changing diets. To give a very concrete example, there are some food types that have far more greenhouse gas emissions than others. We have to think seriously about how we reduce those food types, animal-sourced foods in particular. It is a difficult political question.

Your final point was about whether national self-sufficiency is a component of sustainability. My view is that that is largely a red herring.

The last 50 years, when the UK has produced the greatest fraction of its food, have been the time when the CAP was interpreted as production subsidies. Having that as a goal can lead to perverse outcomes. When people say they want self-sufficiency, what they actually want is an economically sustainable and vibrant UK agricultural sector. One should address that question directly and not through what I see as the proxy of self-sufficiency.

Professor Tim Benton: Following on from my learned colleague, I fully agree. Another framing of what a sustainable food system would look like would be one that allowed us on a global and local basis not to cross planetary boundaries. Of course, the one planetary boundary that every country has signed up to is the 1.5 degrees, or under 2 degrees, Paris Agreement. Currently, our food system is far from that.

I would like to add a further point on what sustainable means. We often talk about it having three legs—social, economic and environmental. Under social, I emphasise the fact that it includes its health-giving properties. Our food system is completely unsustainable because of its health impacts. The other day I looked up hospital admissions in the UK with a primary or secondary diagnosis of obesity. They have gone from 70,000 to nearly 800,000 in a decade. That is partly because we produce the wrong sorts of food. Calorie-rich food is freely available and cheap. Nutrient-dense food is relatively expensive and less available, so we are flooded with calories and we are not flooded with food.

We should think about how much food we produce in a super-intensive way that is cheap enough and is economically rational to throw away. We overeat it because it is freely available. All of that is not sustainable, just as much as the production side in the first place.

My final point is that I agree fully with Charles that sustainability and self-sufficiency are completely different concepts. There is an argument that we should perhaps think about how we build a resilient food system as well as a sustainable food system. Under a resilient food system, there is a much more natural argument to have a discussion about how much we produce at home versus relying on importing, but there is not under a sustainable food system.

Kath Dalmeny: How do you follow that? At Sustain, we work with a lot of different players at different levels of the food system. I spend quite a lot of my time interpreting food sustainability health in lots of different language for different people, because people hear different things in different places. I rather like this discussion because terms such as food security, food sovereignty, food resilience, planetary boundaries and social justice can all interplay in ways that, to me, come down to true system sustainability.

As my two colleagues said, it is about food systems being consistent with keeping within planetary boundaries, but also having a view to moving up the social floor. I do not know if you are familiar with Kate Raworth, the progressive economist, on doughnut economics. I was very privileged to

sit next to her when she drew her first doughnut. She thinks about planetary boundaries in terms of the limits of our planet, but we do not mean that everybody should therefore be pushed downwards and downwards within those boundaries. We have a social floor that we are aspiring to so that we can bring everybody up, so that they enjoy a decent standard of living between the boundaries of the social floor and the planetary boundaries.

These are all quite theoretical when talking to the farmers, caterers, procurement officers and local authorities we deal with. We tend to use language such as food systems that tackle climate change, restore nature and provide adequate nutritious food for everybody that is affordable. Those are the everyday words we use.

It is exactly what Sir Charles said about the tension with the kinds of terms around food security, which tends to mean a rather parochial look at domestic self-sufficiency. I do not think it is a terribly helpful term. It is a very economic assessment of the balance of trade deficit on food imports and exports, but actually we eat a plethora of food grown in different climates and different regions. Localism is not always helpful in the actual sourcing of food, although it can help with the engagement of people caring about their local ecosystems, their local landscapes and the farmers they meet in markets. The farmers market movement, for example, which we work with, is there partly culturally to say, "We want that connection". People often talk about wanting a connection with their food and where it comes from, so there is a cultural aspect as well.

I like to think of food sustainability very much as interpreted for the audiences we work with. When we talk about fisheries, for example—one aspect of the food system—we talk about marine conservation and marine protected areas, so that fish can replenish and regenerate naturally and will be encouraged to do so by ecosystem restoration. The fisheries policy and the human economic activity that relates to that should also be sustainable, so that people are incentivised and have a value in protecting those systems and can make a decent living, for example, by a fairer quota allocation in a post-Brexit world, and by the proper kind of subsidies. Public money for public goods has been championed in the agriculture sector, and it could easily be applied in the fisheries sector as well. It is understanding that jobs, livelihoods, care, culture and recipes are all connected in making sure that the systems that provide our food—generally the natural systems—are protected in an appropriate way.

That is why we talk about systems thinking, to understand true sustainability as part of the piece. It sounds rather complicated. I live in an enormous Venn diagram in my work, but it is thoroughly enjoyable and it means that you are offering solutions to lots of different people and interpreting how we achieve sustainability in practical ways. I would be very happy to share more with you, through all the practitioners, networks and decision-makers we work with at different levels.

The Chair: Could I come back to Charles and the point about self-

sufficiency and sustainability? How does one manage the following challenge? If we rely on imported food, but we also have high standards of sustainability, how do we audit and guarantee that the imported food meets the standard that we would wish to apply in this country?

Professor Sir Charles Godfray: I see that as a direct challenge; it should be approached directly but not within the context of self-sufficiency. When one sets a standard that one wants to achieve in the UK, one has to do things at the borders. That depends on the complexities of trade negotiations and one's associations with other groups. My view would be that we have goals and we try to achieve them within the country, and then we try to establish the fabled level playing field by adjustments at the border.

The Chair: Tim, did you want to add anything?

Professor Tim Benton: I think that is entirely right. It is difficult to imagine that we will have a sustainable agricultural system and move towards zero net carbon land use if we undercut the standards that we put in place in the UK with food that comes in from overseas. For example, if we import a very large amount of very cheap food that is produced by creating environmental externalities, it will of course undercut the profit margins of our farmers. We would lose such a big section of farming enterprise that what was left would be very large-scale intensive farms, because those are the ones that can compete in the global market. In a sense, the alignment between getting our trade right, getting our agriculture and environment policy right and getting the national food strategy right, relies on all those things coming together. We cannot do any one bit alone.

On the self-sufficiency argument, if we are moving into a world where there is increasing climate and geopolitical uncertainty, there is a question to be asked about the balance of trade in the amount of food we produce locally versus what we import, and what we produce locally that we export and other stuff we buy in. As the world gets more uncertain, as it might do if we follow the trajectory of the last five years, do we want to think about having a slightly more diverse base in the UK, with more horticulture and so on instead of less imported agriculture? That is a different question.

As we move forward, and think about building resilience, there must be a notion of an optimal level of risk-sharing between local agriculture and traded agriculture, and what that level will be. It is not just a free market, grab it all, because if something goes wrong, we end up increasing our risk rather than reducing it, as we say in UK climate change risk assessment 2, and will say again in 3. That question is a real one, and it is rarely asked, but self-sufficiency for the sake of self-sufficiency, for the sake of our agricultural economy and for the sake of sustainability, is a bit of a red herring, as Charles says.

The Earl of Caithness: Could you clarify something you said in reply to our Lord Chairman? You said that we produce more calorie-rich food.

Who is “we”? Is it UK or English farmers? Is it English manufacturers or is it our imports?

Professor Tim Benton: On a global basis, the world produces 75% of its calories from eight crops and 50% of its calories from five crops. The eight crops, if I remember, are rice, wheat, maize, soy, palm oil, potatoes, barley and sugar. We have got to the stage where, through global liberalisation driving productivity up and price down, we have increased calorie availability on a global basis and decreased price on a global basis, but it has really been calorie availability.

Seventy-something per cent of all goods in supermarkets have the same set of raw ingredients; they are the ultra-processed foods. They are starchy, sugary or fatty, or combined in such ways that they are tasty, with flavours on top, calorie rich and nutrient poor. That macro-pattern plays out a bit in the UK because our farming enterprises are largely grain on one side of the country and livestock on the other side, with dairy included in that. We do very little for horticulture. If we are to move to a world where we have healthy and sustainable diets, we need far more fruit and vegetables, and we rely on trade primarily to deliver those.

Q81 **The Earl of Caithness:** You have led me into my main question. To get an improved healthy and sustainable diet, we have been told that overwhelming system changes are needed. Tell us what those changes are, rather than words, please.

Professor Tim Benton: I refer to table 5.6 in the IPCC *Special Report on Climate Change and Land*, chapter 5, where we pull together some of the levers for change. At one end, you have education and awareness-changing. You have investment in research from a productivity perspective. You have changes in agricultural practices. You have changes in planning law and the planning environment. You have public procurement. You have a whole range of issues around the food environment. You have the potential for carbon taxes or sugar taxes. You have the possibility of changing agricultural subsidies and moving stuff largely from a focus on yield to a focus on public goods through nutrition, which is a different way of looking at things.

There are lots of things that can be done, but, fundamentally, we have to change the availability of and access to nutritionally rich food versus the cheap flooding of the market with calories and non-nutritional food. That is the kind of balance. There are many things that can be done, but we are locked into a whole set of vicious circles. Every time we change one thing, we tend to make things worse rather than better. We have to do lots of things simultaneously to get the outcomes we need.

Professor Sir Charles Godfray: I agree with virtually everything Tim said. I would take the broader view that in this country and in most of the rich world—indeed most of the world—the narrative around food for the last 40 or 50 years has been developed by a mindset that goes way back to the 1940s, when our whole food system was geared to feeding the

population all the time. Through various advances, we have now got to a situation where the challenges in the food system are very different from what we experienced 50 years ago, but our political economy has not been re-gearred in order to make these difficult decisions.

To repeat something Tim said, much of the way we think about how we invest in the agri-food system is still largely focused around increasing yields. Much of the way we think about regulating food is through a mindset of the Government having little to do with it and trying to allow the individual and the market to work as freely as possible.

The overwhelming system change goes back to the need to have a conversation that will allow us to license our politicians to take some of the many hard decisions that they know they have to take but which at the moment they feel they cannot take with any hope of being re-elected. There are lots of concrete things that one can do. Some of them are relatively easy, but some of them are hard and will require substantial change in political will.

The Earl of Caithness: Can I ask you to go a bit further? What are the legislative and fiscal options open to the Government to help that change? Can you come in on that, Kath?

Kath Dalmeny: We were instrumental at Sustain as an alliance. There were lots of actors working together to win the sugary drinks tax, for example—the soft drinks industry levy that is now in position. Making the political space for that kind of gear change is precisely why we established the campaign. It is to try to make the case for saying that there are fiscal interventions that can and must be done, that are quite practical and will gain public traction and need not be political suicide. In fact, it was the Chancellor of the Exchequer, George Osborne, who eventually introduced it.

It was a very welcome move to the idea of taxing or fiscally disincentivising the bad and then investing in the good, raising the money to pay for the kinds of things that are traditionally underfunded, such as children's health promotion. It is an unusual taxation arrangement, in which it is hypothecated for things such as breakfast clubs and holiday hunger programmes to help with alleviating the effects of poverty and austerity, and low-income households not being able to afford good food.

The intention was always to demonstrate it through an iconic issue such as soft drinks that are classically calorie dense and pretty much nutrient empty. They are pointless drinks in a bottle; I think I can say that with parliamentary privilege. The idea was that you could shift a whole tranche of cash from one place to another, and help to facilitate better food culture through schools and holiday hunger programmes, and it was always a way of demonstrating that.

It was also our intention to make cultural leeway for other types of discussion; for example, what does it look like if you have public money for public goods in agriculture? Well, of course, we now do, or we are on

the verge of hoping to see that happen through the Agriculture Bill. It is a fantastic new way of seeing how we can support farming to deliver public goods. Obviously, the detail still has to be worked out, and we must make sure that farmers are supported through that transition.

It chimed with me when Sir Charles mentioned the idea of the political economy not being geared and needing to be re-geared. Can I go back a couple of paragraphs to the whole area of trade policy? Trade policy is entirely geared to facilitate cheap calories and a very easy flow of grains, sugars and all those things because they tend to be cheap ingredients that then go into manufacturing where a lot of value-added happens. They can also be transported very easily in boxes and they do not go off easily. They are easy to transport around the world. They are very good for marketing by celebrities and international superstars who make those cheap calories and nutrient-poor foods very appealing. They are linked with football teams. They are almost like eternal money-making machines that are constantly fed by the process.

We have been on a steep learning curve in our movement to understand trade policy. As a country, we have not had to deal with that directly, being within a bigger trading bloc, but now we are understanding what we are up against. In other countries that have opened up to the liberalisation of markets for a lot of highly processed foods—I know this language is not straightforward, but for the moment we understand what we mean by highly processed foods—there tends to go with that a rise in diabetes rates, a rise in obesity and a lowering in the consumption of fresh fruit and vegetables. There is a rise in the consumption of dairy fats, sugar and the kinds of grains and highly processed starches that you are talking about. They are all bad for the metabolism. Metabolic conditions increase as a result of letting those kinds of goods on to the market.

Trade policy is not built to regulate on externalities; not in any respect—well, there may be some minor respects. You could look at it across antibiotics regulation and the responsible use of antibiotics. You could look at it in terms of deforestation or disease rates. We are not necessarily choosing the foods we want to achieve a better world, a more food secure world and a healthier world when we look through the lens of a badly geared political economy.

Professor Sir Charles Godfray: I have one brief codicil. I do not think any of us would want to underestimate the triumph of the free market in providing lots of food to very many people.

Kath Dalmeny: Of course.

Professor Sir Charles Godfray: Of the millennium development goals, the only one that was met was the one on hunger. In my view, it is a fiction that there is a single market that forms autonomously and is the only one that can work. We as societies construct the type of markets we want. The real challenge, to go back to what Kath has just said, is how we construct the boundary conditions of a market such that the real

strength of the private sector is providing affordable food that, in addition, is sustainable and healthy. That is the huge challenge for food systems, looking ahead.

Q82 Baroness Boycott: Given that, as you say, the trade market at the moment favours the empty calorie and a carbon-intensive agriculture system, what role can Glasgow and the climate talks play in trying to change that? Everyone knows that we will not meet our targets unless agricultural production and food systems change, yet food is very absent at the moment from any world targets.

Professor Tim Benton: What a good question. I was discussing that with some of the COP team earlier. At the moment, food is hidden in the targets around nature-based solutions, which are becoming our current catch-all silver bullet that will deal with everything. We made the point in the IPCC special report on land that dietary change, certainly in the rich world, is a necessity for achieving the Paris goals. It is a bit of a shame that it has not been picked up by Governments so far.

In the UK situation, agriculture provides about £10 billion to the economy. We are paying something like £3 billion of subsidies. Defra's own figures suggest that pollution costs from nitrogen and phosphate fertiliser are about £5 billion. The carbon cost of agriculture is about £2 billion at European carbon trading prices. I have not found a good estimate for how much food waste costs. Then we have ill health, associated with all the other things, of about £50 billion. We have an enormous cost on the balance sheet for a small degree of profit. It makes no sense in the whole government process to drive agriculture to produce those externalities.

As Charles says, there are two real issues. One is coherence of government policies across different policy silos. The other relates to the political realities of changing our habits and the way we want to eat. That is really difficult. Back in the day, when I was a PhD student, I shared an office with a smoker. The Government at that stage were of the view, "We are not going to intervene in your choices," because it was so difficult. It took years and years to get to the stage where they said, "We have to intervene because the externalisation of your habits on the rest of society is too big to cope with".

It is a long journey. COP is important in setting the frame, but if we get through with a COP that is a mediocre success—maybe I am being too negative—it will be a triumph, because at the moment we are not going to change things in the way that we would have hoped two or three years ago. There are too many political headwinds against us.

Professor Sir Charles Godfray: I have two comments. First, food must be brought much more into the COP process. People have been saying that for donkey's years. I am slightly more optimistic about what the UK might be able to do for COP 26, if it begins to act soon. Again, if one is trying to be optimistic, there have been some good things happening in the UK. The National Farmers' Union, for example, has come up with a

net zero plan. You can argue with the details, but it is hugely encouraging that the industry organisation is thinking about that.

I would like to see the UK taking a global leadership role coming up to Glasgow and saying, "What is going to be a transition to net zero agriculture and a net zero food system over the next 20 years that has a narrative that can bring together both the environmental organisations and the agricultural organisations?" As part of the system change that we have talked about, we are going to be asking industry to do hard and difficult things. We are going to be asking the environmental organisations to abandon some of their shibboleths as well.

Baroness Boycott: Are you doing that? Are you actually writing the narrative?

Professor Sir Charles Godfray: Not me personally. There are a lot of people talking about it at the moment. Speaking more broadly, I would like the UK to seize the opportunity of having COP in this country to do something like that within our own country as an exemplar for others.

Q83 **Baroness Parminter:** You mentioned the opportunity, which is going well, of the public goods model in the Agriculture Bill. What other examples of government policy are there that are doing well in reducing the negative environmental impacts of agriculture, and what more would you like to see?

Professor Sir Charles Godfray: Kath, would you like to go first?

Kath Dalmeny: I would not like to go first because I think my colleague Vicky Hird has submitted evidence to the Committee on the agriculture side. She is a leadership thinker on this, so I will defer to her evidence on that, if that is possible.

Baroness Parminter: That is fine.

Professor Sir Charles Godfray: One way of looking at the issue is to take the planetary boundaries approach. Planetary boundaries are good and bad; they are not perfect. You can say, "What are the main planetary boundaries that agriculture is affecting?" Most are greenhouse gas emissions, water use, land conversion affecting biodiversity and nitrogen and phosphorus pollution.

We try to do an analysis to say that, if one was attempting to reduce the effect of the food system on each of those five planetary boundaries, what should you do? One that is rather straightforward but conceptually hard to apply is to reduce waste. Again, to a certain extent that is an easy thing to say. There are challenges but there are little conceptual issues around that.

The two big things are diet change and investment in new knowledge. For greenhouse gases, diet change is the big one. We know a lot about how to do it. We know that all sorts of things such as education nudge are good, but they only make a difference at the margin. If one wants to get

serious about changing diets, one is talking about regulation and fiscal measures. There is now a good evidence base, which Kath alluded to, that they work.

If one then looks at some of the other things, I think all three of us have talked about sustainable intensification. We need to produce more food from the same amount of land with less input to the environment. There is good econometric research showing that, if you invest, five or six years later you begin to see the benefits.

I am very much not a technological silver bullet person, but there is stuff that we can do to make more sustainable agriculture. It needs a change in mindset in many of our agricultural research organisations, both private and public sector.

Professor Tim Benton: I fully agree with everything that Charles said. One other way of framing this is that we have thought for donkey's years about how we drive up productivity. One of our mantras is that we need to drive up productivity, but one of the questions that I keep posing is, "Productivity of what?" Increasing the productivity of agriculture has led to concentration on fewer and fewer products that are now cheap enough that we throw them away, and they make us ill.

If we think about how to define the productivity of our food system, a productive food system would be one that, at the top of the equation, feeds people, and minimises traditional capital, labour and synthetic inputs. It would minimise the natural capital cost of producing food and the cross-subsidy that comes from healthcare. That sum would be people fed sustainably and healthily per unit input.

In a food system that put people at its heart, and which was health and well-being based, we would naturally think about promoting a more diverse agriculture and a lower waste agriculture with more complex rotations. That would lead to more heterogeneous landscapes, which would lead to more space for biodiversity and a whole range of other things. It is not just a matter of ELMS or narrow sense public goods that come from agriculture per se. We could do a whole lot better by taking a systemic view of what we want the food system to do.

If I go to a meeting of farmers, I often ask, "What are we growing food for?" That is such a straightforward question at one level, but on another level the answer is normally "To make a living". If you talk to people across government, it is often "To promote economic growth". Of course, our food system is supposed to be about our primary need to nourish ourselves, and nourish the planet, in a sense. If we put that at the heart of our thinking, it leads to a whole set of different thoughts about what policies we might put in place.

Kath Dalmeny: Having had a little more time to think—thank you very much—I want to commend the work of the environmental land management scheme team at Defra. They have a lot of very practical ways of implementing the public money for public goods process. They

have also involved behavioural scientists to look at farmers changing methods and understanding what the opportunities are, and they have linked up with a lot of farming groups such as the Nature Friendly Farming Network to ground that in practice and make a shift. There are loads of things that are already happening and could be supported.

My specialism is more at the other end of the supply chain. Some of the things that Charles and Tim have mentioned triggered in me the idea that our whole culture needs to support better farming as well, because a lot of farming is not that profitable. To make changes, there are either incentives, or there is the necessity for farm subsidies in some cases, and we need to make sure that there is a sympathetic marketplace that works with the farmer. I do not mean a nostalgic step back into all of it being direct sales; I mean procurement managers stepping up to be the market that supports an agri-ecological transition at pace that will meet the needs of a climate emergency and a nature emergency. That is procurement management on a national scale.

I have worked for probably 20 years on national procurement policy in the hospital sector and on the government buying standards that govern Whitehall, HM prisons and schools. There has been some progress, but patchy progress, in saying how those actually deliver on public values and match up to the public policy being sought in other sectors. There are also the procurement standards for the commercial bodies that supply not only the public sector but the private sector.

For about 10 years, we have run a programme with all the main catering bodies in the UK on what it would look like if their procurement policy served sustainable fish, and only sustainable fish, and worked with the methods of production and the certification, traceability, verification and support for the transition of fishing fields to a sustainability assessment. That can be done in a principled, systematic way. Over those 10 years, we have been working with caterers that now serve 1 billion meals a year, so it can happen at scale—pun intended; fish scales, sorry.

I am keen on finding actors that can act and interpret all these things into systematic ways of providing a co-ordinated, better market. At the moment, we are also working through the Sustainable Food Cities network, of which you may be aware. There are 57 cities, towns and rural areas that have signed up to the principles of wanting to support a better food system. They are looking for things to do. Many have declared a climate emergency, but when they get to the food chapter it still does not say very much because what it would mean for a city to take action on climate emergency, nature and the necessary agri-ecological transition is not defined. They have big procurement contracts; they have land use policies.

The Chair: We need to move on.

Kath Dalmeny: Of course, but can I emphasise the notion of actors at different levels in the system who can be given an agenda for change?

Q84 Lord Empey: We are continuously moving tectonic plates. We have climate. We have population increase internationally, and consistent with that we have rising standards of living and changing demand. Whatever model we have, those are continuously moving parts. How do you build that into any model? Surely, account has to be taken of those three things.

Professor Sir Charles Godfray: Let me preface what I am going to say. I am a population biologist and I am more optimistic now than when I was a student because we know that global populations are coming down. We know how to accelerate that, largely by educating children. Bringing people out of poverty is a good thing, but, as you say, it will mean that they demand more resource-rich food.

The overall thing is that, intellectually, we can now talk about a time when humanity's demand for food for the planet will plateau. That is encouraging and it is a huge challenge for what we need to do. It is a really interesting thing. What is the position of the UK within a global food system? What is our role in global food security?

It may be a little simplistic, but we can take an economic perspective. If there is going to be a problem with food security, we will immediately see signals in price rises, which will affect other parts of the world much more than us because we are a relatively rich country. Of course, as Baroness Boycott would stress, there are many issues with the lowest decile.

Our duty is to have an efficient response to those price signals in order to contribute to global food security. I define efficiency in two ways. One is a straight economic way—that we should produce food efficiently; and, secondly, we should do it environmentally efficiently. We should not do what we did in the Second World War, which was to cut down all the trees to produce food. From a policy point of view, there are a variety of market failures that we should concentrate on. We know that if prices go up the system will respond—Economics 101—and that is good, but we need to make certain that we have intellectual and human capital in the system that can respond and the wherewithal to treat the externalities without wrecking the sustainability of the system.

Q85 Baroness Ritchie of Downpatrick: What pressures or constraints are the agri-food industries under that limit their ability to reduce the damaging environmental impacts of our food system? How can government measures empower or encourage industries to be part of the solution?

The Chair: Please keep the answers fairly brief because we are running out of time.

Professor Tim Benton: We have the notion that consumption growth is a good thing and that cheaper is better. In a world where there is global competitiveness, the biggest constraint is how you maximise profits. While we are in a relatively regulation-free environment, although many people would say that we have too much regulation, the incentive to increase profits by externalising costs, whether on health systems or

environmental systems, is of course very much there. We also have the situation where, in a global market, if countries are producing goods by levying large environmental costs, they have a competitive advantage in the global market and there is a kind of race to the bottom.

Between those two things, we have a fundamental business that is built on being as cheap as possible, and for me that is the biggest constraint. If we are to internalise the external costs on society, the inevitable implication, as we move ahead into a more uncertain world, is that food prices are going to increase. At the moment, they are effectively subsidised in our country by environmental subsidies and healthcare subsidies. A future of increasing food prices is inevitable, and we have to get out of the notion that we subsidise food prices in the name of the poor, environmentally and in healthcare, to thinking about how we deal with poverty in and of itself rather than how to make food as cheap as possible. For me, that is the answer.

Professor Sir Charles Godfray: I have nothing to add.

Kath Dalmeny: I agree.

Q86 **Baroness Sanderson of Welton:** How can we build the consideration of public health and social inequalities into the design of the whole food system, alongside the priorities of environmental sustainability? As you say, there are trade-offs, so does a sustainable food system mean that people will be spending more on their food?

Professor Sir Charles Godfray: There is a trade-off. In an ideal world, where one had more economic equality in society, one would have a greater number of levers to improve the healthiness and sustainability of the food system. One could use price more as a mechanism, without worrying about the food poverty of the smallest decile.

There is a real and complex trade-off. If we retain the levels of poverty that we currently have in society, we will have to use different methods of trying to get a more sustainable food system, which might be regulatory rather than price. It is highly complex.

Kath Dalmeny: We have done a lot of work on food poverty with a lot of poverty groups over the last five years or so. We are shifting the emphasis away from talking about food poverty to, as you said, treating poverty as what it is: lack of income, lack of access to resources and lack of support. We use the phrase "Beyond the food bank", not seeing the answer to food poverty as feeding people surplus food, but making sure that they have sufficient income and a decrease in household costs to help them get out of debt. All those things are interventions, such as making sure that the social security benefit level is at a minimum that would meet the actual costs of living.

It is that kind of approach, not letting the food system carry the burden of poverty, because it is already a low-margin industry that has all kinds of challenges that came up in Baroness Ritchie's question. To change the quality of the food supply that reaches everybody, there is lots to be

done on fiscal incentives and on changing the costs of ingredients. At the moment, we do not subsidise fruit and vegetables through farm subsidies. Professor Tim Benton spoke about subsidising fruit and vegetable production, or at least supporting more land for that kind of use and perhaps more entrants to small-scale horticulture, diverse crops and all those kinds of things.

We could have a national programme to do that. That would give ingredients to a food industry that would then make good use of subsidised ingredients that bear health in them. At the moment, we subsidise the wrong kinds of foods in the wrong kinds of products.

Professor Tim Benton: Perhaps I could add a rider. Part of the issue about inequality is that at the moment the poor have access to the worst possible diets and bear the biggest healthcare costs. Increasingly, as food production drives environmental breakdown and climate change, the poor are going to suffer those costs even more, both internationally and nationally. By subsidising food systems from the environment in the name of the poor, we are doing them a double disservice. We are making their health worse today and increasing their vulnerability to issues in the future.

Taking the food bit out of the issue, and saying that we have to tackle this systemically and food prices are going to have to rise, how do we deal with poverty as a separate important question? It is not about how we use natural capital to subsidise food because that just makes things worse generation by generation.

Professor Sir Charles Godfray: To amplify that slightly, I think we will see a lot of calls for subsidies for fruit and vegetables on the grounds that they are producing a public good. That may be right, but I would want it to be looked at very carefully. I am not convinced that that is the limiting factor in healthy diets. It is almost so obvious that I do not need to state it, but it is far easier to introduce a subsidy than to remove it if it is not effective. There are other economic conceptual ways to look at taking the money we spend at the moment in a slightly incoherent way and spending it better. I am not convinced that subsidising fruit and vegetables is the way to do it.

Kath Dalmeny: I agree. Subsidies can be used as a generic term for support systems. I commend the work of organisations such as Peas Please and the VegPower initiative in trying to make a cultural shift; lots of businesses, communities and procurement people are looking at how to integrate fruit and vegetables into recipes, for example. We eat quite a lot of our food prepared by others in the form of ready meals or meals provided for us in institutions. It is the idea of a shift in emphasis, and how we make a cultural shift, but that must also, as you say, go along with lots of economic considerations about how we make that affordable in the longer term and not just a PR push.

The Chair: What are the alternatives? You said that it may not be the most effective way to shift dietary behaviour. What do you think are

effective ways? Subsidies may not be effective, so what is?

Kath Dalmeny: We have been looking quite a lot at different alternative trading systems. They are quite small scale at the moment, but they are things such as fruit and vegetable co-operatives and small-scale horticulture in peri-urban areas of cities, and what we call the alternative routes to market for those, where the horticulturalist is supported by a ready market that is buying in a sympathetic way—for example, via veg boxes where surplus and variability of supply can be dealt with.

There are smart and dynamic procurement systems that enable horticultural producers in particular to go into public sector procurement, for example. Bath & North East Somerset, the local authority, did that. Using clever technical systems, the mechanics of making the system sympathetic to the supply of fruit and veg means it then gets incorporated into dishes and people's diets. There is some fairly good evidence showing that where fruit and vegetables are accessed through some of these alternative mechanisms they are consumed, because obviously that is the aim in the end.

The Chair: Is that true of the most disadvantaged communities?

Kath Dalmeny: That is very tricky. The evidence is not quite so clear there, but it is encouraging at least that there is intervention, which can be quite expensive intervention, to try to get fruit and veg co-operative type of activities. It is quite large scale. For example, there is a big co-op in Reading that serves all kinds of communities and is almost cross-subsidising itself to make sure that some of the bags of veg are cheaper for the most disadvantaged people. Some of these have values based in them. As I say, they can be quite small scale, but some can be reasonable scale such as a £1 million-turnover fruit and veg scheme—

The Chair: In what you have just said you are coming back to the question of subsidies, making fruit and vegetables cheaper.

Kath Dalmeny: Yes, but that is not necessarily a government subsidy. It can be a subsidy within a scheme in order to balance the costs—to make more money out of some of the wealthier customers and balance that across.

Professor Sir Charles Godfray: That is a carrot. There is also the stick side. We know a lot of what we need to do around zoning laws and advertising laws, and about changing the food and retail environment in which many people—especially those who have very busy, challenged lives—are not taking reflective decisions when buying food items. There is an evidence base and consensus on what needs to be done. Frankly, they are very difficult political decisions.

Kath Dalmeny: Yes, although we should commend some of the things that Baroness Boycott herself championed when she was the food champion for the Mayor of London. They were things such as championing the healthier catering commitment that emerged from

environmental health officers in local authorities. They help food outlets locally to change the nutritional quality of the food served, through the types of oils in which food is cooked and the salt levels, and the way things are presented and ensuring that fruit and vegetables are available. Those kinds of small incremental changes can help. They have not been evaluated on a large scale because there is no money in that system, but there is a real wealth of enthusiasm among local practitioners for helping change to happen. That requires an enabling context.

For example, the current Mayor of London has banned high-fat, salt and sugar advertising on the entire Transport for London estate. We are helping other local authorities to adopt that approach. I see that as detoxifying the food environment. It is taking all the incremental steps, whether through schools, advertising hoardings or local food outlets, to say "We want a cultural shift". Sometimes that involves money, sometimes it involves enthusiasm, and sometimes it involves finding the right set of professionals who are prepared to take it under their wing.

Q87 Lord Whitty: We have talked about very broad shifts, but you have also come up with some specifics. Could each of you, in the final question, give us one specific change in policy that you think we should recommend in our report?

Professor Sir Charles Godfray: We have touched on this already. The mantra of public money for public good and how we can restructure UK agriculture is exciting, but it is very complex. We have not decided what a public good is. Economists will take a technical definition of what a public good is, and many other people will take different definitions. We have to have a discussion about what that is. Then we need to put it in place with a proper transition period and try to begin to get consensus between the different stakeholders about what can be done. Because we are forced to think about how we are going to restructure our support for rural environments and communities, we must not lose this once-in-a-generation opportunity. Whatever you thought about having to do it, we have to do it, so let us do it well.

Professor Tim Benton: You ask a difficult question. I keep saying that there is no such thing as a silver bullet. Given the situation we are in, the essential enabler for everything else to work is getting trade right for our UK food system and not to say, as previous Trade Secretaries and the Leader of the House of Commons have said in various ways, that the Brexit dividend will be felt through access to cheaper food. That is absolutely going to undercut our ability to do everything else we want to do in this space, so getting trade right is the most important immediate thing.

Kath Dalmeny: I am glad you said that. I can move on to say that I would formally incorporate the right to food in UK law, which would provide an accountability framework for helping all the different departments and agencies who need to work on this to see their part in the jigsaw puzzle and to be held accountable for the pieces of action that

need to be taken to add up to tackling systemic issues such as food poverty and soil loss in food production.

That sounds like a magic bullet. I do not mean it to be so, but because it is quite a complex idea we have offered the Committee a special session on the right to food. It is worth considering how we look at a framework that deals with these cost-cutting issues. They tend to fall into silos and then we will just tackle sugar without tackling how the alternatives are grown. We will tackle food poverty without considering the impact on farmers. We have almost to force a balancing act, like standing on a great wobbleboard, in which we say, "How do we balance those trade-offs but make serious progress on common societal goals?" I look forward to helping to facilitate that right to food session.

Lord Whitty: In that session, you will give us a precise formulation for enforcement of such a right.

Kath Dalmeny: Yes. I am adding that to my to-do list, Lord Whitty.

The Chair: Thank you very much indeed for your very helpful answers. In drawing the session to a close, I remind you that a transcript of the session will eventually be published on the Committee's website. However, before that stage, you will have an opportunity to comment on it and make any corrections that you wish to make to the evidence that you have given. If there are any points you would like to follow up in writing, please feel free to do so. Thank you very much indeed.