



Environment, Food and Rural Affairs Committee

Oral evidence: [Food Security](#), HC 926

Wednesday 26 March 2014

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Written evidence from witnesses:

- [Department for Environment, Food and Rural Affairs](#)
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Members present: Miss Anne McIntosh (Chair); Richard Drax, Jim Fitzpatrick, Mrs Mary Glendon, Mrs Emma Lewell-Buck, Sheryll Murray, Neil Parish, Ms Margaret Ritchie, Mr Mark Spencer, Roger Williams

Questions [257-338]

Witnesses: **George Eustice**, Parliamentary Under-Secretary of State, (Farming, Food and Marine Environment), and **Lindsay Harris**, Deputy Director, Food and Materials Security, and Food Standards, Department for Environment, Food and Rural Affairs, gave evidence.

Q257 Chair: Good afternoon and welcome to your first official appearance since you left the Committee. It is our pleasure to welcome you back, Minister. Just for the record, could you give your formal title and introduce your colleague as well?

George Eustice: I am George Eustice, the Parliamentary Under-Secretary of State for Farming, Food and the Marine Environment. This is Lindsay Harris, who is our lead official on food matters.

Q258 Chair: As you are probably aware, we may be interrupted by a vote, so we will adjourn and return as quickly as we possibly can. Since the Foresight report was published, has there been any movement or any change in the Government's thinking on food security?

George Eustice: No, we think the Foresight report was actually a very thorough report that looked at this issue and some of the challenges emerging from it. There are a number of things the Government has done since then. We have launched the Agri-Tech Strategy, for instance, and encouraged a number of industry-led schemes to reduce waste and to reduce the environmental impact of farming.

Q259 Chair: We understand that self-sufficiency in food production is currently in the UK running at 62%. It has in the past been considerably higher. Are you content with the current levels of food self-sufficiency in the UK?

George Eustice: Yes, we are. One of the points that came out from the Foresight report is that food security is not just about self-sufficiency at a national level. Actually having

open markets and free trade globally has got a very important role to play in making sure that we have food security. I would also point out that—you are right; it is around 62% now, and in recent decades, it has been slightly higher than that—if you look at the longer sweep of history, if you go back to the 1930s, before World War II, self-sufficiency at that point was between 30% and 40%. By longer historical measurements, 62% is still quite a high degree of self-sufficiency for the UK.

Q260 Chair: Is the Department doing anything to encourage UK consumers to buy more in-season British produce rather than imported alternatives?

George Eustice: We are not promoting anything directly in terms of consumers—we are not supporting any advertising campaigns—but we are working at the moment on a project with the Department for Education, supporting them on their school food plan, which they are currently putting together, which will be launched in September at the beginning of the next academic year. One of the elements that they are keen to encourage in that is sourcing produce that is in-season, sourcing where possible local produce and also trying to join up Government procurement of food when it comes to schools, school procurement of food, with an educational experience, so linking it back to the curriculum and trying to encourage children to learn where their food has come from, alongside sourcing locally and sourcing in-season produce.

Q261 Chair: Are you concerned that self-sufficiency in fruit and veg is at the lowest, apparently, that it has been for some time? Obviously if it is higher it brings a lot of jobs and contributions to the local economy. Is that a concern that you share?

George Eustice: I have had meetings with the British Growers Association, which represents the fruit and veg sector, and actually I think it is quite a competitive part of our farming industry. You tend to get some of the larger agricultural enterprises in that sector and we do have some very big and very strong players in the fruit and veg sector. It is dear to my heart, because I worked in the fruit and veg sector myself 10 years before entering politics. It is fair to say that, increasingly, it is a globally traded market when it comes to fruit and veg, more so than it had been historically, when typically other sectors such as beef had a longer standing position in terms of international trade. We have a vibrant sector, so the fact that it has gone down slightly is not something we should be unduly concerned about.

Q262 Chair: Do you think the Groceries Code Adjudicator is making a difference?

George Eustice: From the growers who I have spoken to—some of them have met Christine Tacon, the new Chief Executive of the Groceries Code Adjudicator—they are very optimistic about the impact that it could make. I think it will change the culture and will help some of those businesses, particularly in the fruit and veg sector, where you tend to get farm enterprises that deal directly with supermarkets in a way that is less common in some other sectors, such as beef or dairy.

Q263 Chair: We were told in evidence that the resilience and the security of the supply are more important almost than where the food is produced. What is the Department doing to improve resilience of supply?

George Eustice: Food security, as you will be aware, is a very broad topic so, first of all, there is a role; we need a vibrant competitive farming industry, and that is why we are pursuing policies like the Agri-Tech Strategy. It is why we are pursuing an export strategy. We want to encourage and have a vibrant profitable future for farming.

There is also then resilience in terms of world trade, and the UK is at the forefront of promoting, for instance, the Transatlantic Trade and Investment Partnership. We are at the forefront of calling for that to move forward and putting pressure on the European Union to take that forward. We are also at the forefront of opening up markets elsewhere. The EU/Mercosur deal, for instance, is something else that we are promoting. The UK has a strong tradition of promoting free trade and it is something we are still doing.

The final element of resilience is around very short-term resilience in terms of the supply chain. Officials have previously had meetings with some of the retail chains in the UK to ensure that if, for instance, we were to have a serious fuel strike and had fuel lorries going on strike, there would be sufficient resilience to ensure that we got food to the shelves. Work is going on continually at all those levels, and it is something that we are keen to promote.

Q264 Chair: If resilience is breached or reduced, do you have contingency plans in place?

George Eustice: Our view is that the way to deliver food security is, number one, as I say, to take quite a long-term approach. It is about making sure that we have a vibrant competitive farming industry. Although self-sufficiency is not the only answer, we do see having a strong domestic industry as part of it. It is about constantly making sure that we have got those markets open.

In terms of whether we have a strategy or a contingency plan if you had something like a World War II situation, where world markets were completely closed, we do not have anything specific there. It is important to note that, even though they were starting from a very low base of between 30% and 40% self-sufficiency before World War II, by switching the emphasis to producing higher-carbohydrate crops such as potatoes and grains, they actually did manage to get up to around a 90% increase in the calorific value of the crops being produced. I suppose we would probably dust off something similar to what happened in World War II, if we had something as extreme as a World War II situation. In the meantime, we just need to focus on making sure that we have open markets and a competitive and vibrant agriculture.

Q265 Chair: Where are we on the shorter supply chains, particularly in view of traceability and the horsemeat scenario?

George Eustice: As you know, we have the Elliott review. He has published a very comprehensive interim report and will publish his final report later this spring. There are a lot of very important suggestions in there that we are looking at and considering. There are a number of things we have already done. The FSA has already taken forward some of the suggestions around, for instance, an intelligence hub to make sure there is better sharing of intelligence so that, when there is a problem, we can target it quickly. Inside the Department, we have done some work to develop improved testing techniques, so that we can detect things such as offal that are getting into products when they should not be. We have also made available additional money to local authorities across the country so that they can do the testing that is required. Obviously, since the horsemeat scare, there have been around 45,000 tests done by industry of beef products and not one of those has returned a problem. This was a very serious problem at the time, but we did act quickly and managed to get it under control.

Q266 Chair: Where are we on the labelling provisions that the Secretary of State is pressing for in the European Union?

George Eustice: Which ones in particular?

Chair: In particular the labelling that beef is beef and what it says on the tin, post-horsemeat basically.

George Eustice: I might need to ask Lindsay to remind me of the precise detail, but we did reach agreement. This relates to country of origin in particular. There had been some controversy that animals raised in other countries and then brought to, say, the UK and slaughtered in the UK could be described as UK produce. The EU has now agreed a set of different timescales that require, to claim that it is reared in a country, it has to have been there for, in the case of pigs, at least four months, and sheep something similar. If it is not, then they have to make clear that it was slaughtered in the UK rather than reared there. To claim that it is the country of origin, it has to have been born, reared and slaughtered in the UK. That has already been agreed at the EU level and I think we are in the process—Lindsay might need to confirm—in terms of putting down the orders to put in place those new provisions.

There is an ongoing debate in the EU at the moment—I was at the European Council on Monday where this was argued—around the proposal from some member states, led predominantly by France, to say that we should label country of origin for meats in processed products as well. That is an area where the UK has actually tended to take the same view as the Commission. They did a study of this that showed that the costs of trying to do that kind of labelling on processing products make it a much more complicated thing than it is on fresh meats. The costs would increase by around between 15% and 50% and, on that basis, the view at the moment is that we should stick with a voluntary approach to country-of-origin labelling when it comes to processed foods. At the moment, around 75% of the processed foods sold by UK retailers do have that voluntary country-of-origin labelling.

Q267 Chair: The Department produced a UK food security assessment in 2010, and you looked at it again in 2012. Now the Department is saying that it should be looked at in six or seven-year intervals. Do you think that is possibly too long a period without looking at all the criteria that you have set out—the six themes?

George Eustice: What I would say is that, given that the Foresight report identified that, in the short term, we are actually quite resilient, and the report identified that we had quite a high degree of food security in the short term, the challenge that was identified was a longer-term one. There are two key drivers of that. One is a rising world population, set to go to around 9 billion by 2050. An increase in taste for dairy products and meat products in some emerging countries such as China is also increasing demand. Some projections in the Foresight report suggested that there might be an increase in demand for food by 2050 of around 60%. That is quite a long-term trend.

The second long-term issue identified was climate change and the fact that that might, in some parts of the world, particularly in the Indian subcontinent or other equatorial regions, actually create stress on agricultural systems in some of those countries. These are quite long-term trends that were identified by Foresight, which is why I think the timescale that is identified is probably appropriate. I do not know, Lindsay, if there is anything you wanted to add.

Lindsay Harris: That is right, but it is just to say the original assessment was a very thorough piece of work. It took about a year to do, because it deals with long-term trends, as the Minister said. It would not be something that we would do every year. The review that was done in 2012 was a lighter-touch reassessment of some of the key indicators, so that sort of reassessment is something we could do more frequently if there was felt to be a need for it.

Q268 Sheryll Murray: Could I turn to the responsibilities in relation to food security? What are Defra's responsibilities? Is it to frame and implement policies, or to inform, coordinate and support?

George Eustice: I guess it is both but, when it comes to policies, we have to recognise that a large part of the policy making in both, as you will be aware, fishing and in farming comes from the European Union, through the CAP and the CFP, but there are other policies that we can put in place. That is why we have, for instance, the Agri-Tech Strategy, where we have made available a fund of £160 million to support the transfer of technology and the commercialisation of technology, and also to develop centres of excellence in the UK, so that we can make that next leap forward in productivity.

We also have a piece of work going on, led by the *Future of Farming Review*, which is about trying to encourage new entrants to get into farming. We do have a bit of an issue with the average age of farmers in the UK going up; we need to try to have alternative business models to make it easier for new entrants to come in, earn a stake in the industry and fulfil their aspirations in the industry.

Then there are also areas where we do have a supportive role, for instance WRAP, which is a project that is all about sustainable use of resources and reducing waste. We have made some very good progress actually reducing food waste; it is down by about 15% since 2007. That is a project that is funded to the tune of £17 million a year by Defra, but which is very much about enabling and supporting voluntary approaches within industry, so that they tackle these challenges on their own. It is a combination of policy responses that we have nationally. We obviously had a lead role for that at Defra, but also a supportive role through projects like WRAP.

Q269 Sheryll Murray: Do you interact with other Government Departments? For instance, how often does Defra discuss food security with BIS? Do you have regular meetings or is it just as and when they are needed?

George Eustice: In fact, the written submission to this inquiry, as we made clear, came from BIS, DFID, the Department of Health, DECC, DfT and the Treasury, so we worked across Government in terms of submitting this evidence. The answer is yes; we do talk to all of those Departments regularly.

Q270 Sheryll Murray: Are they regular set meetings with a specific period of time between each meeting or is it, as you have said, on an as-and-when basis?

George Eustice: I know that we came together to do this report, but Lindsay might be able to update you on whether there are any regular structured meetings at official level.

Lindsay Harris: Yes, there are on particular issues, so for example the Agri-Tech Strategy, which is now in the process of being implemented. That is a joint team between BIS and Defra, so they are working with each other in that team all the time. On other issues, such as our liaison with the food supply chain, we have, for example, regular

meetings with the major food retailers, which the BIS retail team attends, so we have a joint public face in that way.

Q271 Sheryll Murray: What has been the impact of the Food Chain Emergency Liaison Group and what tangible outcomes can you identify?

Lindsay Harris: The Food Chain Emergency Liaison Group is the group where we come together with representatives of different parts of the food chain to do the sort of planning for potential threats to food-chain resilience that was being asked about earlier. It is really about a forum for information exchange and preparing for the types of events that we think might impact on food supplies, so, for example, as the Minister has mentioned, disruptions to fuel and transport. We have also looked at disruption through severe weather. We are doing a study at the moment on the potential impact of an east coast tidal surge, which could impact on all east coast ports, which is where a lot of our food imports come through. The purpose of it really is to spread awareness among food businesses of the sorts of threats there are, how serious they are, what evidence there is and what sorts of measures they could be taking. It is not the sort of thing where you will see public-facing outputs, apart from some of the research projects we are commissioning.

Q272 Sheryll Murray: I know you have already mentioned the EU, with regard to the impact on producers but, given that we source many of our imports of food from the EU, is Defra engaged with our EU partners in discussing food security at a European Union level?

George Eustice: Indeed. Coming back to one of my original points about the importance of free trade to delivering food security, we do have the single market and the closest thing we will ever get to perfect free trade within the European Union. That obviously has a very important role to play in terms of resilience and the food security of the European Union as a whole. Issues such as this regularly come up in various different guises on the agenda of the European Council. On Monday, as I said, we had a long discussion about the Transatlantic Trade and Investment Partnership and some of the implications of that so, yes, these issues are regularly discussed at a European level, as of course are some of the elements around not just trade, but trying to open the door to technologies such as GM, where the UK has taken quite a clear position. Those are also frequently discussed at a European level.

Q273 Ms Ritchie: Minister, moving on to the Fruit and Vegetables Task Force, how are you taking account of the recommendations of that task force in relation to planning permission to build on agricultural land or protection of agricultural land?

George Eustice: We are very clear as a Government and as a Department that the primary purpose for land in the UK should be for food production. When it comes to development or building, you are talking about relatively small areas. We have been clear that there could be issues around, for instance, biofuels and we need to make sure that we protect food production as the primary purpose particularly for agricultural land in the UK.

Q274 Ms Ritchie: What are the mechanisms to facilitate the coordination with the Department for Communities and Local Government, in relation to land use?

George Eustice: All government policies, and this is a long-established convention, before being agreed go through what is called the write-around process, so the lead Department has to write to all the other Departments to invite their opinions on something before the final decision is made. On any planning issue or any DCLG policy issue that might affect

Defra or might affect land use, Defra is always given an opportunity to contribute to the development of that policy.

Q275 Mr Spencer: Just going back to land uses and looking at farmer co-operatives where they have come together to add value to their products, there are a number of farmer groups telling me they are having difficulty getting planning permission for packhouses, which is often interpreted by planning authorities as an industrial process rather than an agricultural process. I wonder if you have had discussions with DCLG as to how you can assist those farmers to diversify and add value to their product within the planning system.

George Eustice: I might ask Lindsay to come in on whether there is any specific discussion on that point, but obviously the Government has taken very much a pro-enterprise approach to this. We want to see the rural economy going forward. We do not want to have unnecessary planning obstacles in the way to the development of rural businesses, so there have been some changes, for instance to allow a change of use of some rural buildings, even allowing some farm buildings to become residential buildings where there is a demand for that. I think you make a good point; we do need to make sure that we have a planning system that does not stand in the way of agricultural production.

Obviously as you will be aware, coming from the industry, there has traditionally been an approach that says agricultural buildings have a very light-touch approach. Certain buildings do not actually need to go through a formal planning process at all; they can be signed off. When it comes to a packhouse, it is slightly different because you are not talking about a conventional agricultural building. I do not know, Lindsay, whether there is anything to add, except that as a Government we do want to encourage a pro-business approach to this, while also making sure that the right checks and balances are in place.

Q276 Roger Williams: Minister, in your submission, you say that the Common Agricultural Policy contributes to food insecurity by propping up inefficient farmers. Can you explain your thinking on that? *[Interruption.]*

Chair: Saved by the bell. We will adjourn, if colleagues could come back in 15 minutes if there is one vote.

Sitting suspended for a Division in the House.

On resuming—

Chair: Minister, thank you for your patience. I think you were just about to answer Roger Williams' question.

George Eustice: I think the question was around CAP and the impact of that on food security. The first thing to say is that, although we absolutely recognise that the CAP has improved in recent years, in that it does not have as much distortion on food prices as it used to—if you go back to the 1980s, the evidence then was that food prices in the EU were around 71% above world prices; at the moment, it is only about 4%. Nevertheless, we still think that it is a distorting policy. It does potentially prevent larger businesses from expanding and keeps some of the successful businesses from expanding. It can keep some of the less productive farms going when actually they should probably be retiring and allowing more productive businesses to take over. We do think it can affect farm productivity. Allied to that as well, you still have the issue of trade tariffs. Although we are making efforts to try to bring down those tariffs globally, the existence of those tariffs can still have an impact on food prices.

Q277 Roger Williams: I think you would accept that food tariffs on imports and export subsidies are reducing in the CAP, and their impact is getting less. Could you tell me what you mean by an inefficient farm or an unproductive farm? Is it somebody who produces less per acre or is it somebody who does not use their inputs correctly to maximise their yield, as compared with their inputs?

George Eustice: As a general rule, those farms that are more productive have higher yields and manage their costs more effectively will also be more profitable. You can get quite a variation between farms. Some farms would be losing money were it not for the single farm payment that they receive, and then you have other examples of farms that are profitable simply by producing food and are very productive.

Coming back to the example earlier in fruit and veg, you will sometimes come across fruit and veg farmers who frankly do not want the hassle of bothering with the single farm payment, because it is more trouble than it is worth to them, and they will enter share-farm agreements with other farmers so that they can use their land, but not have the hassle of doing all of the cross-compliance. Equally, you will have other farmers who are entirely reliant on that single farm payment for their income. I would say that, as a general rule, what we mean by more productive farms are those that are profitable, vibrant and successful and can invest for the future, and those also tend to be the ones that would have higher yields and lower costs.

Q278 Roger Williams: Would hill farmers be classed as inefficient in that definition?

George Eustice: Not necessarily. I want to be very clear here. I am of the view, as I made clear at the start, that if we want to have food security in a national sense, then we must also have a vibrant, successful farming industry. I do believe that that means that we will still need to be farming on some of the more marginal land. We should not just take a view that it is only the Grade 1 or 2 land that you would farm and you would abandon the hills but, even within the hills, you will find there are some hill farmers who are far more successful than others. Probably what we should have is a degree of consolidation. That would make it easier for new entrants to take on farms and take on holdings, and bring some fresh ideas into the industry. It is not really about distinguishing between different types of farming and different land types; it is really that, within each of those categories of farming, we want productive farmers.

Q279 Roger Williams: I am not quite clear about the reasons for you saying that the CAP actually prevents large businesses from expanding. What particular aspect of the CAP prevents that happening?

George Eustice: At a very clear level, we resisted this as the UK, but there was very strong pressure from other European countries to have a cap on the level of subsidies paid. That cap is there; it is set at a high enough level that it does not cause us too much concern here in the UK. Policies like that are effectively rewarding some of the smaller, less productive farms at the expense of potentially larger, more productive ones. Fundamentally, and this comes up every time we talk about how we get new entrants into farming, every project has been done locally, so that Wales has a new entrants scheme in farming. In Cornwall, my own area, they piloted something called the Fresh Start initiative, which looked at trying to get and support new entrants.

Everyone who has looked at this says the same thing: that part of getting new people into the industry is helping some of them retire and get out of the industry, because we have a fixed amount of land. If you want to create opportunities for new people, who might come with fresh ideas, fresh thinking and be more productive, you have to make it easier for some of those to retire. I would simply say this: if you have unprofitable, less productive farms, which are basically being propped up by the single farm payment, which is a straight subsidy payment, you are making it harder for new entrants to get in.

Q280 Roger Williams: What would Defra do to overcome these problems with the CAP?

George Eustice: It has obviously been the longstanding position of the UK that we can support farming better through Pillar 2 payments, where there is more national discretion over how they are managed, where for instance you can have grants that are targeted to help farm businesses become more competitive and add value to their products. I visited a number of very good examples of farm businesses that have benefited from RDP grants, in order to, for instance, invest in food-processing equipment, which has then added value to their dairy products. We think that, in the long term, that is a better way to support our farming than simply having an arbitrary area-based payment. For all of my lifetime and probably for many years to come CAP has always had this suffix “reform” at the end of it. It comes around as regular as clockwork every seven years, and it is a slow incremental process getting that kind of reform in the CAP.

Q281 Mr Spencer: If we can start to look at the rest of the world and the UK’s context in that, if we look at the far side, Asia, their diet is changing; they are moving to a Western diet and the middle classes are expanding. What assessment have you made of the impact on the UK’s food security that that change in demand from the other side of the world is going to have on us?

George Eustice: It is one of the points highlighted in the Foresight report, as I said, with the population estimated to go to 9 billion by 2050. With changing taste and growing demand for dairy products, beef and lamb, for instance, there will be an increased demand for food. Someone has suggested it could go up by as much as 60%. That is likely to have an impact. Here for the UK that could create opportunities for us. It is one of the reasons why we have put a great deal of emphasis on exports. We have been particularly successful at opening markets in China to British pork, and we have opened markets in Russia to British lamb, for instance. A key element of the TTIP negotiations at the moment—the Transatlantic Trade and Investment Partnership—that the EU is leading is to ensure that we can open the US market to European beef. There are lots of opportunities for us in export.

Quite often, what we are finding is that in countries like China and other Asian countries, sometimes they have a market for parts of the carcass for which there is no market here in the UK. Pig trotters, chicken’s feet and things like that are seen as a great delicacy in some of these countries where there is not a ready market for them in the UK. Actually having that free trade can create a market for human consumption of parts of the carcass that previously would have gone into pet food.

Q282 Chair: Just before we leave pigs’ trotters, I have to declare an interest, because we are trying to export pigs’ trotters from Malton bacon factory and indeed Cookstown. There are two problems. One is that pigs’ trotters apparently are not yet on the approved list,

believe it or not, and also the Chinese do not understand geography—that Northern Ireland, Cookstown, is part of the United Kingdom. Have you had representations on this?

George Eustice: Yes, and I have discussed it with Ms Ritchie on a number of occasions. Actually it was raised with me on a visit in the new year, when I went to Northern Ireland. There is a bit of an issue here, which is AHVLA leads on this work on a GB level and we have a team in Carlisle that works in a very methodical way to get the export certificates required for different meat products in export markets. They have a huge grid of different products in different markets they are trying to open. They pursue it in a very methodical way and they get veterinary experts from these countries over to inspect particular slaughterhouses.

There is a slight issue when it comes to Northern Ireland, in that AHVLA does not perform the same remit in Northern Ireland as they do in the rest of GB, and we are conscious that there can sometimes be a particular problem where they think they have done it for GB and then they do not quite understand the situation with Ireland. We do work closely with the devolved Northern Ireland Assembly to try to support them in that work. I am not sure whether Lindsay is going to be able to help me but, as I understand it, there were some officials and inspectors coming over from China to look at a number of plants. Particularly they were looking at infant formula milk. The last time I checked, which was several weeks ago, there was an intention that, when those inspectors came over, they might also be able to visit the abattoirs to try to get them accredited as well to export. We are conscious that there is a particular challenge when it comes to Northern Ireland and we do work with the Northern Ireland Government to try to resolve it.

Q283 Chair: It has been put to me that it is potentially a multi-million-pound export split between two sites, one of which is in my own constituency. It is fairly urgent, because the inspections were cancelled recently, so there has been no progress made whatsoever. I congratulate the Government on what it is doing but, actually, nothing is happening at the moment and we need to remove the barriers to the exports as soon as we possibly can.

George Eustice: Absolutely, and obviously we are dealing with veterinary authorities in other countries. They sometimes have different ways of working. It is not always easy, but all I can say is that we place a great deal of emphasis on this. The Secretary of State has been to China on a number of occasions to try to help open markets and, as I said, we do have a dedicated team of people who are working away on the real nuts-and-bolts issues of trying to open these markets and get those certificates in place. On that individual case where you said that they were cancelled, I am quite happy to go back afterwards, check the position and check what we plan to do next to try to get those inspectors over to accredit those abattoirs.

Q284 Mr Spencer: If we leave exports and look at imports, we are pretty dependent on imported plant protein. If there was a catastrophic collapse in the North American soya harvest or the Chinese soya harvest, what impact would that have on the UK?

George Eustice: It would have an impact on feed prices. Feed is a globally traded commodity, and prices do go up and down. Poor harvests and bad weather affecting those is a key factor in prices. In terms of what we are doing, while it is absolutely the case that free trade is a key element of having food security, so making sure we have open markets and they are able to import that soya that we need is important, there are also a number of things that may mean that we produce more animal protein domestically.

One is some of the changes at the moment, the greening measures in the Common Agricultural Policy—in particular the requirement for crop diversification and three crops—may mean that some cereal producers switch to other crops, pulses and beans, as a break crop, so we could see an increase in the cultivation of those leguminous crops.

The other thing to say here is that a number of sectors of the industry have been trying to encourage the sourcing of more domestic food stuff. If you look particularly at the pig industry, I attended around a month ago the launch of the Pig Industry Roadmap, which is about the work that they are doing to reduce their environmental impact. The key way that they have quite dramatically reduced their carbon dioxide footprint at the moment is actually by sourcing more domestically grown feed, rather than relying on soya. Some work has been going on and we also fund a piece of work on sustainable agriculture, which is also doing some work in this area. I do not know whether Lindsay wants to add anything.

Lindsay Harris: There is some research looking at ways of growing more of these leguminous crops, but in a way that is more suited for use as animal feed. At the moment, they tend to be targeted for the pea and bean market for human consumption, rather than the palatability of the rest of the crop.

Q285 Mr Spencer: That almost sounds like there is an acknowledgement that we cannot depend on the global market for that sort of protein. Is there a strategic plan to make sure we are much more robust in protecting ourselves from those market forces?

George Eustice: I have picked up the precise figure now. There is the Sustainable Agricultural and Food Innovation Platform, which is jointly followed by the Technology Strategy Board, Defra and other Government agencies. That is actually supporting research projects up to a total of around £16 million in grant funding to basically support the industry with research and development to work out how they can reduce reliance on protein sourced overseas. We are supporting R and D work to try to develop that. Secondly, you have some of the changes in the CAP, which may drive some changes in agricultural cropping practices anyway and may lead to more of these break crops being grown anyway.

Q286 Neil Parish: What is Defra's view on the contribution of reducing our consumption of meat, especially grain-fed meat, to improve food security? I emphasise the "efra" in Defra.

George Eustice: As a livestock farmer, I imagine you have quite strong views on that. What is certainly true is there has been quite a large increase in the poultry industry. It is certainly true that it is likely that the poultry industry is going to continue to grow to meet some of that global demand, but we are not pursuing any policy that is discouraging people from eating red meat, beef or lamb. We think that is something that is a choice for consumers, but it is likely that we will see a continued growth in the poultry industry, because it is an area where you can increase production of meats with arguably a lower environmental impact. As we try to meet increasing demand for meat, it is likely that poultry is where you are going to see the sharpest rise. I can assure you that we do not have any policy to discourage people from eating beef or lamb. It has a very important role to play as part of a healthy diet.

Q287 Neil Parish: You have more or less answered the next part of my question, which is: does the Government have any plans to introduce further guidelines to reducing

meat consumption? I take it the answer is no. This is the Government as a whole. Does the Government speak with one voice on these matters?

George Eustice: The Government always speaks with one voice, as you will no doubt be aware.

Neil Parish: A very confident Minister, I see.

George Eustice: As I said, we do not believe it is the role of Government to dictate to people whether they should be eating red meat, pork, lamb or whatever. It is something that is a consumer choice. We do want to make sure that consumers have information and ensure that they have a healthy diet, and that means eating a range of different proteins, from fish to meat, and obviously veg.

Q288 Neil Parish: One of my pet themes is whether Defra has looked at all at grass-fed beef and lamb in particular. I know the Republic of Ireland has looked a bit at that as well, on promoting that particular type of meat production, because that has a great value to the landscape as well as to the meat production.

George Eustice: Particularly when it comes to sheep, actually having some grazing of sheep is quite important to maintaining certain landscapes and habitats for certain types of insect, which then themselves provide a feed for birds. Some of our agri-environment schemes do indeed have requirements around stocking densities and requirement for there to be some grazing to maintain some of those habitats. I am sure that some of those management measures will remain in the New Environmental Land Management Scheme that we are currently developing.

Q289 Neil Parish: If theoretically we were to reduce meat consumption in the UK, what impact would that have on our agricultural systems?

George Eustice: As I said, we are in a situation where we are going to have rising global demand for meat. As I said earlier in response to a question from Mr Spencer, we are trying very hard to open up export markets, for lamb, pork and British beef as well, perhaps even to the US. You have to put this in the context that we are going to have rising demand globally for meat and there is a very good future for livestock production here in the UK, because we have the right climate and the right pasture to be able to farm livestock and cattle. The dairy industry has a very good future as well, for all of those reasons.

Q290 Neil Parish: You expect, as a Government Minister, to robustly defend that position, do you?

George Eustice: Of course. I robustly defend the farming industry pretty much every day of doing this job.

Q291 Neil Parish: I would not expect anything less from you. Can I move on to biofuels now? Naturally biodigesters and others have a very good use, especially when they use waste food product, but they very often feed them with maize and other crops, which we could use either for feeding cattle or for direct food production. Does this threaten our food security and domestic food production?

George Eustice: The Government is very clear that the primary goal of agriculture should be food production, and so we would not want to see large areas of farmland given over to crops to produce biofuels. Sometimes there is a difference. When I visited the British Sugar factory up in East Anglia recently, actually they do have a biofuel plant there but,

rather than growing a crop dedicated specifically to produce the biofuel, they actually use almost a by-product from the sugar production that is then used to develop the biofuel. That is a slightly different proposition, because then you potentially have a situation with sugar beet where you are both producing sugar, so producing food, but you have a by-product from that that might previously have gone as molasses to be used perhaps in animal feed or something, but which could have an alternative use in development as a biofuel.

I would distinguish between that kind of thing, where I could see there being a role for those bioproducts from food production, and seeing whole fields of maize given over to biofuel production. There could be a role for it and some of it is going on, but we would not want to see it become a significant feature in the UK, because we do believe that the primary purpose of agricultural land should be food production.

Q292 Neil Parish: That leads me quite neatly into the second part of the question, and that is talking about second and third-generation biofuels, where you are getting the breaking down of cellulose. For instance, you could take the wheat and make it into bread or feeds for cattle, and you could actually make the straw into a biofuel. Are we doing any research into that here in this country or what?

George Eustice: Lindsay, do you know if we are?

Lindsay Harris: I do not, I am afraid.

George Eustice: I am not sure we are doing any direct research. You have some very big players, in the case of Associated British Foods, which owns British Sugar, one of Britain's biggest food companies. You have some very serious players in the food industry that are looking closely at this issue. I am sure that they themselves are doing quite a lot of research into this area, but I am not aware that this is an area that we are specifically funding. I can, if you like, double-check and drop a note to the Committee.

Q293 Neil Parish: That is where there is a future for biofuels, where you are not actually using the primary crop. That is something we should perhaps pursue.

George Eustice: I would agree. As I said, it is what I found attractive about the approach being taken by British Sugar. They are not compromising the fact that there is primary food production going on. That is the main objective, but they are using a by-product from that sugar manufacturing process to create a biofuel. That is something that we should be less concerned about, because you are then creating a biofuel as a by-product rather than taking up land dedicated solely for the purpose of biofuel production.

Q294 Neil Parish: One final question, going back to the first question, and that is that *Countryfile* recently featured a major UK biofuel plant using wheat for bioethanol. There you are taking the wheat crop and producing it directly into ethanol. What is the Government's view of that?

George Eustice: As I said, our view is that the primary goal of agriculture in the UK should be food production, so we would not want to see large areas of crops dedicated to biofuels. We are doing some work within Europe to ensure that food production remains the core EU consideration. There is also a bit of work to do to promote what is called advanced biofuels, coming back to what you mentioned before, so we are keen to promote that idea rather than the growing of crops dedicated to biofuels.

Q295 Neil Parish: I think I am right in understanding that, when they make the bioethanol out of wheat, they are left with a high-protein cattle feed afterwards, so perhaps there is a bonus there if that counteracts a little bit of the taking the wheat in the first instance.

George Eustice: Potentially, yes. A lot of the cereal production in the UK anyway goes into cattle feed.

Neil Parish: It changes a lot of feed wheat into possibly a high protein. Thank you very much.

Q296 Chair: Minister, are you aware that the biofuels that are being produced and added to diesel actually freeze and cause engines to clog up, including mine?

George Eustice: I was not aware of that, but I am sure, somewhere in Defra, we have an official who is acutely aware of that.

Chair: It might be a little bit of research you might like to commission, if you would be so good.

Q297 Mrs Lewell-Buck: Minister, we have heard evidence throughout this inquiry about the challenges that climate change poses. I was curious; do you feel that that poses a threat to food security or not?

George Eustice: Yes. One of the key findings of the Foresight report, as I said earlier, was that climate change could lead to more freak weather events. Particularly in some parts of the world, as with the Indian subcontinent and other areas where water resources could become very limited and constraining, yes, climate change could have an impact on food production in some parts of the world. Work by the IPCC on this has also supported that view. It is important to point out that they have tended to conclude that, in temperate parts of the world such as the UK and Europe, the impact of climate change on food production is likely to be far lower or potentially even fairly neutral and negligible but, in other parts of the world, the impact could be quite severe. It is indeed something that we need to be concerned about.

Q298 Mrs Lewell-Buck: Minister, you agree with it, so how are those risks incorporated into Defra's approach to food security?

George Eustice: As I said, it was in the Foresight report. Obviously a lot of the work that we are doing on the Agri-Tech Strategy is not just focused on the UK; it is developing centres of excellence that will develop expertise that can be used globally. We have also encouraged and been at the forefront of saying that we should have an open mind to new technologies, such as genomics and also GM crops, where there is the potential that you could breed more drought-resistant varieties of crops. That could be very important for those areas that suffer the worst impacts of climate change. I would say, through a combination of the Agri-Tech Strategy that we are pursuing, combined with our view that we should open world markets and have food trade, those two key measures are the key measures that we would need to mitigate the risk of climate change.

Q299 Richard Drax: Minister, I seem to recall some time ago someone suggested putting nappies on livestock. I think it got a little bit ridiculous. On a more serious point, livestock contributes to greenhouse gas emissions. What research has been done into reducing these livestock emissions?

George Eustice: As I mentioned earlier, and Defra helped facilitate the setting-up of these, in each sector—there is one for pigs, there is one for dairy and I know there had been one

for beef, but I do not think it has met for a while—there had been a number of what they call roadmap working groups for different sectors of the farming industry to come up with proposals and develop approaches that would reduce the environmental impact of farming. As I mentioned earlier, a great success has been had, particularly with the pig industry, predominantly because they have switched the source of their feedstuffs to more domestic feedstuffs, so they have reduced the environmental impact of transporting soya. There are other examples like that that we can pursue, but I would stop short of saying we should put nappies on livestock.

Q300 Richard Drax: Just to expand a bit further, you are talking about perhaps what they are fed and looking at the way they are fed. Has any research gone into that sort of thing?

George Eustice: Do you know if there is anything specific? I know there are a number of research projects there, but they tend to focus on using feedstuffs that are grown domestically, which would reduce the impact of transporting soya in particular.

Lindsay Harris: There is also work on aspects of grasslands management and nutrition for ruminants to tackle that issue.

Q301 Richard Drax: How will the increasing demand for meat globally, which we all agree is going to happen, and our efforts to increase production in the UK going to affect greenhouse gas emissions, or is it going to affect greenhouse emissions in the years ahead?

George Eustice: There is evidence that suggests that farming globally accounts for around 30% of greenhouse gas emissions. I suppose it goes without saying that, if you are needing to increase food production, which we do need to do, then yes, there could be an increased impact on the environment. That is why we are doing some work on research in this area, through the Agri-Tech Strategy. There is quite an emphasis on sustainable intensification, as I mentioned earlier, so that we can look at ways of increasing production while mitigating some of the impact on the environment.

Q302 Richard Drax: We were told it would be useful to have some more experimental farm platforms to examine the different ways to farm. How is that going? Is that going to be sustainable? What is your view on that?

George Eustice: On the Agri-Tech Strategy, there are two elements that it is supporting. Of the £160 million, £90 million of that is going to develop centres of excellence. I know for instance in Cornwall, in my part of the world, Duchy College, which is one of our agricultural colleges, has aspirations to lead a piece of work on dairy. I am sure one of the issues that they will be looking at is environmental impact. At one level, you are getting those centres of excellence and then there is another fund, which is very much about improving the transfer of the knowledge we already have to a farm level, making it more applied. There is going to be £60 million going into these catalyst funds to try to encourage that. That would look at the applied end of the work being done in this area.

Q303 Richard Drax: It is one thing about the research. As for the dairy industry, you spoke about intensification, farm experimentation and the use of different ways of farming to try to reduce the impact of farming. In the dairy industry, for example, if you put more cows and intensify them into these buildings, which some people would agree is one way forward, what is Defra's view on the fact that, for example, fertility is likely to drop the more you put cows under stress and strain, rather than allowing them to walk around on the grass, which is what was the original design of this animal? What is the Government's view

on this experimentation and intensification, looking at ways of trying to reduce the impact but, at the same time, not damaging fertility in a cow?

George Eustice: I am aware this can be quite a contentious debate, but our view is that, when it comes to animal welfare, you can have high levels of animal welfare using all sorts of different systems. I visited in Scotland quite a large unit of around 400 dairy cows that were in an enclosed system, where they had a robotic milking system, where the cows went up when they fancied it to be milked, rather than being rounded up twice a day. Actually, they seemed perfectly content and relaxed, and they did not appear to be under any stress at all. I know that there a lot of people who say that the natural place for a cow is outdoors and they are opposed to some of these more intensive systems. It is an area where the Farm Animal Welfare Committee, which is an expert advisory body to Defra, is doing a bit of work just to do some comparisons and to investigate this argument that says that these more intensive dairy systems are less good for the welfare of the cow.

Q304 Mr Spencer: Minister, you have used the phrase “sustainable intensification” on a couple of occasions. I think it was Professor Beddington who invented it. I just wondered if you could give us your definition of what sustainable intensification is.

George Eustice: I think it is about improving productivity while simultaneously reducing the impact on the environment. It means pursuing technologies that are going to improve yields and allow us to produce more food to meet rising global demand, but in a way that does not put any further stress on the world’s resources. Of those, although people tend to focus on climate change and the impact of carbon in the atmosphere, the reality is, when it comes to agricultural production, probably the most important limiting resource would become water, particularly in those areas that are impacted by climate change. Making sure that we are pursuing technologies that enable us to produce more food, while not necessarily putting further demands on our fresh water resource, is going to be very important. It is at 70% at the moment of fresh water resources around the world.

Q305 Mr Spencer: Is that a farm-by-farm basis, a national basis or a global basis?

George Eustice: On a global basis. It is why I think the investment that we are making in research and development in these areas is so important and could have applications around the world.

Q306 Mr Spencer: Does that mean you could be much more intensive in East Anglia and allow a more extensive system in the South West? Is that sustainable intensification or do you have to have that sort of recognition of sustainability in East Anglia as well as the South West?

George Eustice: It could be a combination actually. You could move to a situation—I know that this has been mooted previously as an idea around the Common Agricultural Policy—that you would have parts of the country where you had your most productive land, where you focused on production, and other parts of the country where you tried to encourage a more extensive approach. Within that as well, we would want it to be sustainable. We do not want to be polluting and damaging the environment at the same time as farming in this better land, so it is a combination of both.

Q307 Mr Spencer: How will that contribute to food security then? Will that be negative or positive to our food security as a nation?

George Eustice: It is positive in that you might get higher yields and larger outputs in the short term by hammering your land but, as any farmer knows, in the long term, if you

want food security you have to look after your land; you have to look after your natural resources and take care not to pollute your watercourses. It is about trying to produce more while not jeopardising the long-term resilience of your ability to produce food by causing environmental damage.

Q308 Chair: Before we leave that, if we may, what do you say to my constituents who are worried about pollution being caused by fracking?

George Eustice: We are very much of the view that fracking could have a role to play in terms of generating new gas. I know that there are sometimes concerns about water pollution from the water used for fracking, but we think that, provided you get the regulation right and it is important you have clear regulation that protects water courses, provided you get that element of it right—some of the problems that have been in the US are where they have not, for instance, stored the water that comes back out of the ground correctly. Provided you get the regulation right around it, we think you can manage this sustainably. The amount of water that would be used for fracking, although the volumes are quite large, given that these projects would be going on in quite a limited scale and the water tends to be used early in the process, just to get the gas flowing, we do not think is going to have a significant impact on our water resources.

Q309 Chair: What about placing an oil well head close to a river? Is that a source of concern? Is it something the Department has looked at?

George Eustice: The Environment Agency would be the primary authority that licenses the process. Planning authorities would deal with other issues, such as the location of the well head and the impact of lorry movements. Sometimes one of the biggest concerns that communities have is the impact of having those vehicle movements in the area. We are confident that you can, providing you get the regulation right around it, actually do this in a way that is not going to cause any threat at all to our groundwater system, particularly as fracking tends to take place at a much lower depth than the groundwater.

Q310 Chair: I am sure this is a debate to be had.

George Eustice: I am sure it will run and run.

Q311 Mr Spencer: Post-war we made some enormous gains in terms of cereal output per acre but, over the last decade, that has plateaued. How are we going to turn that plateau around and make the next leap forward to increase yields per acre?

George Eustice: It is a very good point. We did in the post-war period see a huge increase in productivity. It is really in the last 20 or so years it has plateaued and it is difficult to explain that. There is still quite a lot of research going on. We still have the various levy boards in the agricultural industry brought together under the AHDB, and the lion's share of the money that they have raised from those levy boards does go on to research and development, and trying to get new varieties of crop that might be higher-yielding. It may simply be that we made big advances and that we are now pushing the limits, and perhaps that is why we need to give serious consideration to new technologies.

Everyone always focuses on GM crops; it is not just that, actually. There are other new mechanisms where you can enhance conventional plant breeding to get particular traits into a crop far more quickly, through gene marking technologies and others. It is what we hope to address with our Agri-Tech Strategy, getting that next leap forward, which will be necessary to meet rising world demand.

Q312 Mr Spencer: As we drive forward for more and more productivity, how is Defra going to ensure that that productivity is sustainable and we protect those resources like water, which you mentioned, and soils?

George Eustice: It is a combination really. We should bear in mind that we made a lot of progress in the last 20 years, in terms of having more sustainable agriculture. We had big jumps in yield in the immediate post-war period. We have had big advances in making it more sustainable, and it is a combination of getting the right regulation in place. If you look at water, you have the Water Framework Directive at the moment coming out of the EU, which is driving a number of policy considerations, and obviously the environmental land management schemes that we have. You can get that balance right. I do not think it is an either/or; you can actually invest in agricultural technology and get those steps forward in productivity while, at the same time, making sure you have the right regulation in place and the right support in place to protect and enhance our environment.

Q313 Richard Drax: Minister, you mentioned soil and I do remember seeing some reports somewhere, or certainly hearing comments made, that the state of our soils in our country is of great concern to many people, not least those who know about it, and I do not, sadly. Obviously at home, I farm, as you know. We put a lot of manure back on to the land to try to bring all the right elements back up again. What research has been done to see what state the soil in this country is in to be able to produce all this food in the next 10, 20 or 30 years?

George Eustice: I know there are sometimes concerns, particularly around changing the cropping patterns. The fact that you are not getting overwintered stubble as much now that you might have got previously means that soil is more at risk of erosion. There are sometimes concerns about the increased growing of maize and the fact that that is also contributing to soil erosion. There are these concerns.

As many farmers will tell you, some of them through gritted teeth, as part of the cross-compliance regime on single farm payments there is something called the soil protection review. It means, therefore, that every farmer has to give some consideration to how they manage their soils. That to date has been typically quite a paper-based exercise, where farmers are required to go through a certain questionnaire to demonstrate that they have thought about how they are managing their soils. We are looking at whether we can refine that and make it a more meaningful exercise, where those farms, particularly in parts of the country that are most at risk, actually go through a much more meaningful assessment of how they can manage their soils, so that they are not at risk of erosion.

Q314 Roger Williams: Could you tell us if you think that precision farming is a help in sustainable intensification?

George Eustice: The role of precision farming?

Roger Williams: Yes.

George Eustice: It could have a very important role. It is crucial that, when we talk about agri-technology, we are not just talking about GMs. The debate can sometimes just get bogged down in that. George Freeman, as many will know, has been a strong advocate of precision farming and other technologies in this area. There is a really important role for it. There is already development of technologies around GPS systems and field mapping, so that you put different levels of fertiliser on different parts of the field, depending on the

nature of the field. That kind of really refined approach to agriculture could well have an important role to play in sustainable intensification.

I visited Harper Adams University College a few weeks ago, and they are doing quite a lot of important and interesting work on robotics and whether you could make greater use of robotic technology in agriculture to do things like crop observations, and also harvesting as well, which is a big issue, particularly in fruit and veg.

Q315 Roger Williams: Could you tell us what role Defra is taking in encouraging these developments and the marketing of these developments to farmers?

Lindsay Harris: We have referred several times to the Agri-Tech Strategy. Some of the funding under that is going into a series of centres that bring together agricultural researchers and the food industry, and the first of those centres is going to be on agricultural informatics and metrics of sustainability.

Q316 Roger Williams: Is that a Catapult centre?

Lindsay Harris: No. The Catapult is separate. The Catapult is more on the innovation side. The centres are about bringing together expertise, and then translating it and transferring it to practical application on the ground. This first centre on informatics is getting at a lot of the techniques out there on areas like precision farming that have great potential to increase productivity through using inputs more efficiently. That is one of the ways you can get those productivity increases. There is quite a big variation in how those are currently being used, as you were saying earlier, between the best performing farms and some of the rest.

Q317 Roger Williams: Just going back to the soil issue, I understand as part of the Red Tape Challenge, farmers in England anyway will no longer be required to keep the diary about soil damage and how they mitigate it.

Chair: We are actually coming on to the soil survey now.

Roger Williams: I was just going back to the last one.

George Eustice: I was going to address Mr Williams' point about what we are doing to support farmers. We have mentioned the Agri-Tech Strategy on numerous occasions but there are also, within Pillar 2 of the Common Agricultural Policy, a number of specific grants aimed at this area. One, which has always been quite popular with farmers, is the FFIS, the Farming and Forestry Improvement Scheme, which offers small grants to farmers to help them invest in precisely some of these technologies that might improve their productivity. We will retain a version of the FFIS in the new schemes going forward. We will probably try to focus a little bit more so that, on an individual farm scale, we make sure that the money goes to measures that will add most productivity to that individual farm business.

Q318 Ms Ritchie: Minister, protecting the quality of our soil is important for food security and I suppose even more so with the challenges of climate change, particularly with floods and quite intensive flooding over the last number of months. We have discussed the importance of good soil science for food security. When will the next soil survey of England take place?

George Eustice: Do you know? Lindsay does not know. I am not sure when the next soil survey will but, as I mentioned earlier, we are doing quite an important piece of work at

the moment around developing something to replace the Soil Protection Review, which is an annual exercise that all farmers in receipt of the single farm payment must go through. It has been a contentious issue, because it is an area where, in recent years, we have had quite a number of farmers breach it because they just have not filled out the paperwork in the right way. It has been contentious with many farm businesses for reasons I can understand. We are looking closely at the Soil Protection Review, and we want to replace it with something that is more meaningful. It may be those parts of the country or those types of farms where the farming practices cause greatest concern with soil protection actually do something more meaningful, in terms of addressing the threat to their soils, or you could have a much lighter approach. For somebody who has permanent pasture, frankly, there is no real reason why they should be bothered with a Soil Protection Review.

Q319 Ms Ritchie: Minister, the Soil Protection Review—you are doing some work on that at the moment; when will that reach finality or completion? Is consideration being given to a further soil survey?

George Eustice: I will have to get back to the Committee on the soil survey, I am afraid, because that is not an issue that I think is imminent, because it is not something that has been discussed with me yet. On the Soil Protection Review, we are currently working on both the SMRs, the statutory management requirements, and the GAECs, the good agricultural and environmental conditions, which are the two bits of cross-compliance. We are reviewing all of those at the moment, and we will have in place a new scheme, including a new approach to the Soil Protection Review, for the beginning of 2015 when the new CAP starts.

Q320 Ms Ritchie: As a consequence of that, how are we going to meet the strategic shortage of soil and water specialists identified in the 2010 report on soil science to do research and ensure the transfer of knowledge to that sector?

George Eustice: Lindsay, is there anything you wanted to add on that?

Lindsay Harris: I do not know the answer to that, I am afraid.

George Eustice: I am afraid it is another one where we will have to get the answer to that and write to the Committee.

Chair: If you could write to the Committee that would be perfectly acceptable, Minister.

Q321 Mrs Glendon: I apologise for not having been here for the first hour of the meeting. Minister, you have already alluded to GM technology in some other questions, and we know the Secretary of State has declared that he supports GM technology. Would you say his views are shared across Government?

George Eustice: Yes. As I said earlier, Government always speaks with one voice. We have taken a very clear position on this. Provided you get the regulation right in the management of GM crops and the licensing of them, and I think we do have that in the European Union through the EFSA—it is a very rigorous process—GM crops are something that we should have an open mind to, because they can be an important tool in improving farm productivity.

Q322 Chair: Could I just ask one little question? Are we the only country that has a problem with licensing in the EU? Are you hearing this from other member states as well?

George Eustice: The fact is that, until very recently, there was only one GM crop that was licensed for use in the European Union. We have always suffered in the European Union, frankly, from a lot of political disagreement about whether or not we should allow the planting of GM crops in the European Union. Different countries have taken very different views, and that is why it has been very difficult to get any progress. There was only one, licensed in 1998, that has ever really been used.

Recently, there was a very important debate in the European Council around the strain of maize 1507, which is a particular strain of maize that is resistant to corn borer. It would not have any application at all in the UK, but there was interest in growing it in Spain. As a result of a deadlock on that, the Commission is now likely to take forward the next steps to license that. It has been a very slow process, and obviously there are other parts of the world where GM crops are widely used, notably the US, but in the European Union as a result of political disagreement they are not used at all, frankly, at the moment.

Q323 Mrs Glendon: Do you think that the UK could operate its own licensing system?

George Eustice: This is one of those interesting areas. At the moment, this is an area of EU competence, the licensing of these crops. However, there may be potential here and this is where there is some discussion going on. Countries like Germany, who themselves are very reluctant politically to allow GM crops, have signalled that they may live with the fact that, at a European level, these crops could be licensed, provided there could be some sort of national derogation that allowed them to prevent them being grown in their own country. It may be that, in order to get some progress in this issue, it would be possible to have agreement for these crops at a European level, but with member states having the ability to have a derogation from that. That might be one possible way forward, and I think that is a more likely way forward than us unilaterally licensing them and growing them.

Q324 Mrs Glendon: What sort of contribution might GM technology actually make to food security?

George Eustice: Probably its most likely application and probably the most important application would be in the sphere of getting crops that are drought-resistant. Given that the Foresight report was very clear that the resource that is going to be most constraining on food production and, therefore, the greatest threat to global food security is likely to be water, if we can breed strains of crops that are drought-resistant and require less water, that is probably going to be its most important application.

It is important to note that, so far, GM crops have not generally led to higher yields. Where GM technology has been used elsewhere in the world, most widely in the US, it has tended to be used either to create resistance to insects, which has reduced the need for insecticides, or sometimes to increase tolerance to herbicides. In some cases, it has increased the use of herbicides, but it has tended to help support farming practices, rather than leading to increased yields per se, in terms of those that are commercially available at the moment.

Q325 Mrs Glindon: Going on from what you said and what GM has been used for, do you think the lack of ability to use GM crops is holding back the productivity and competitiveness of UK agriculture at all?

George Eustice: Yes, I think it could. We should not overstate it because, as I said, the GM crops that are currently used around the world have tended not to lead to higher yields, but they have in some cases been able to create a situation where you have much lower use of insecticides in particular. They could have an application. It is not something we should be closing the door to.

Q326 Mrs Glindon: We know that GM crops cause controversy. How do you think public concerns about the safety of GM crops can be allayed?

George Eustice: We just have to keep getting people to focus on the evidence. Where concerns are raised, we have to point out the huge amount of work that goes on and the regulatory process that we have in place. EFSA, the European Food Safety Authority, does an enormous amount of work to license GM crops. It is the same sort of work that they would do on licensing a new chemical pesticide for use. They look very closely at food safety issues and the consensus is there is not really a threat to food safety.

The issue that sometimes is a more legitimate concern, and it is an area that they also look closely at, is whether by putting genes into a different species you start to create consequences where this gene might escape into other wild crops and wild flowers. This is another area that they look very closely at to make sure that there is not a danger of these genes jumping into the wild. The compatibility of these genes and making sure that they are stable over time are all the sorts of things that are looked at in great detail by EFSA, before they would ever clear a GM crop for use.

Q327 Richard Drax: There was a very interesting professor who talked about GM. We asked one of our witnesses about GM crops, and the Committee will put me right if I am wrong, but I seem to recall on this issue he was asked if there was a danger about GM. It was this question of fears being allayed. His answer was quite interesting. He said that all those who will tell you that there is no harm or worry about GM, and there is no evidence to suggest that it does harm you, will say that it does not harm you. That is a perfectly true statement. He said that in America, which is a highly litigious country, as we know, there are questions being raised that with those who have been eating and consuming GM crops for some years, as we have just said, no research has been done yet to see whether it does harm. I think I am right. I think that was roughly where we went. Two states, he said, are going to insist on packaging or words to that effect. I think I am right, if I recall. Have you heard anything about the concerns in America, because you mentioned America, that no research has been done into whether GM crops do affect the human being?

George Eustice: I have not. I am not an expert on the American regulatory system in these areas, but all I can say is that food safety is an issue that EFSA, at the European level, does look at. Some of the concerns around the use of GM crops in the US are that there is some evidence that, used incorrectly, they can encourage farming practices and approaches to husbandry that can be counter-productive.

For instance, when it comes to insect-resistant GM crops, it is always advisable to mix them a little bit with a conventional crop, so that you do not encourage the build-up of resistance to the resistance gene in the insects you are trying to target. Nature is always out there to create an equilibrium and, if you have something that is perfectly resistant to

an aphid, for instance, aphids will soon find a way around that resistance. To make sure that you do not end up with superbugs that can deal with the GM, you need to blend in some conventional crops, whether it is maize or whatever. There has been some evidence in the US of perhaps over-use of herbicides as a result of GM, and a failure to do that kind of work that you would need to do to make sure that you do not get resistance building up.

Q328 Chair: Could I just ask what the Department is doing? Obviously there is very real concern among the public and even some specialists in this. What is the Department doing to respond to the public concerns?

George Eustice: I would just point out that Owen Paterson, since becoming Secretary of State, has really gone out there to try to lead a debate on this issue. One of the first speeches he did was to go out there to try to have the debate, because it has generally been quite an ill informed debate. We absolutely recognise that there are some genuine concerns there and we need to address those concerns and talk people through the fact we recognise what those are, but that we do believe that the regulatory system we have in place addresses all of those concerns. We try to lead a more informed debate.

Q329 Chair: If we could just keep the answers fairly short, what are you doing to change the EU regulatory regime, if anything?

George Eustice: We voted in favour of allowing 1507, the strain of maize, and we always argue consistently the case for it.

Q330 Chair: Have you looked at the report to the Council for Science and Technology on the EU regulatory regime for GM crops, and have you made an assessment? Mr Harris, has the Department made an assessment?

George Eustice: I am aware that it was done.

Chair: I think you might have assistance coming.

Lindsay Harris: I know that it was welcomed by the Government when it was published. I do not think there has been a formal Government response yet, but I imagine there will be.

Q331 Chair: If you were going to have one, it would be interesting if you could share it with the Committee. Has Defra commissioned any of its own research and development, or are you using the funds from the Agri-Tech Strategy?

George Eustice: I would need to write to clarify that. I am not aware that we are directly funding research on GM. What tends to happen is that the company that is coming forward with the GM crop commissions the work that is needed to license it and to do the impact assessments.

Q332 Chair: If you could give three main outcomes you would expect to see from the new Agri-Tech Strategy, what would you say they were?

George Eustice: Sustainable intensification we would like to see, as I mentioned to Mr Spencer earlier, the next leap forward in farm productivity. We know that we have an increased global demand for food that needs to be met, so sustainable intensification and increasing farm productivity, not just here but around the world.

Q333 Chair: What would you like to see in particular from the catalyst fund under the Agri-Tech Strategy, from the Department's point of view?

George Eustice: We have made an invitation for project ideas to come through from that. Probably we will be making some announcements on those. We have had some expressions of interest already; they are being evaluated now. They are projects about taking some of the technology that we already have and some of the science knowledge we already have in our universities, and commercialising it and applying it.

Q334 Chair: We heard in evidence that the first round of the Agri-Tech catalyst competition was six times oversubscribed. Is it sufficiently well resourced?

George Eustice: Whenever you have funds of this sort, you are going to get a lot of applications coming forward. The key thing is that you prioritise the ones that are going to add most value. As I said, we have had some applications and we are evaluating them now. We ran the first round of it last autumn and we expect to make some announcements on some of those shortly, probably some before the summer and another tranche later in the summer.

Q335 Chair: Does the Department encourage organisations to apply for the latest European research and development programme? Horizon 2020 apparently is its official title.

Lindsay Harris: There is a very wide range of different European funds available under Horizon 2020. Certainly in the food area, we do actively encourage UK participants to take up those funds. There was an announcement a few weeks ago of a European project on food integrity, which had been won by a consortium led by Fera, the Defra agency.

Q336 Chair: That happened to be based in Sand Hutton in Thirsk and Malton, so that was very good news. What is the take-up though? Are you pleased with the take-up, or do you think it could be higher?

Lindsay Harris: I do not know the answer to that. I am afraid we would have to come back to you.

Q337 Chair: Minister, you focused a lot on drought being the main holdback, but you have not responded to the NFU concerns as fully as you might have done, about land being lost to flooding, particularly in Yorkshire and the Humber, between September 2012 and March 2013, and what we saw in the Somerset Levels, the South West, parts of Wales and Scotland. Are you not at the Department concerned about land being lost to floods in the future on that scale?

George Eustice: You have to put it into the context if you are talking about global security of food supply. The truth is that there were pockets, notably Somerset, those parts of the country where farmland was under water for weeks, where actually the crops were destroyed. We know that if land is under water for typically around two to three weeks, pretty much everything that is in the soil is dead, even if you have permanent pasture. In most other parts of the country, although we had very high rainfall, where you did not have flooding or even where you had flooding for short periods of time, just a few days, we know that actually the crops will recover from that kind of flooding. We have looked at this. Our assessment at the moment is that there is no major impact on crops in the UK from the flooding incidents we have had this year. Clearly it has been a really big impact in places like Somerset, in those very localised areas that have been under water for weeks. In most parts of the country, even where they have had high rainfall, with better weather now the crops will go on to recover.

Q338 Chair: A final rather cheeky question: a number of us represent cheese producers and obviously are very proud of that. I noticed some comments that you had made, which I would like to support—I am sure the Committee would as well—about the Department of Health’s policy on cheese and dairy products, as part of the diet. Was the Department consulted before this policy was agreed within the Department of Health?

George Eustice: Yes. As I said, Government always speaks with one voice on these matters. This is a campaign, the Smart Swaps campaign, that the Department of Health led, but I was consulted by Jane Ellison, the Minister who leads on this, towards the end of last year. As always with these things, as I said, Government speaks with one voice and we were happy with the final campaign that was launched.

Chair: Thank you very much for being so generous with your time, and Mr Harris as well, for being with us and contributing to this inquiry. If you could possibly give the written responses that you have offered, within the week or next 10 days, that would be an enormous help to us to complete our work. We are very grateful to you for being here today. Thank you.