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Pàrlamaid na h-Alba

Official Report

RURAL AFFAIRS, CLIMATE CHANGE AND ENVIRONMENT COMMITTEE

Wednesday 20 February 2013

Session 4

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CONTENTS

RURAL AFFAIRS, CLIMATE CHANGE AND ENVIRONMENT COMMITTEE
6th Meeting 2013, Session 4

CONVENER

*Rob Gibson (Caithness, Sutherland and Ross) (SNP)

DEPUTY CONVENER

*Graeme Dey (Angus South) (SNP)

COMMITTEE MEMBERS

*Jayne Baxter (Mid Scotland and Fife) (Lab)
*Claudia Beamish (South Scotland) (Lab)
*Nigel Don (Angus North and Mearns) (SNP)
*Alex Fergusson (Galloway and West Dumfries) (Con)
*Jim Hume (South Scotland) (LD)
*Richard Lyle (Central Scotland) (SNP)
*Angus MacDonald (Falkirk East) (SNP)

*attended

THE FOLLOWING ALSO PARTICIPATED:

Dr Ute Collier (Committee on Climate Change)
Keith Connal (Scottish Government)
Calum Davidson (Highlands and Islands Enterprise)
Dr Richard Dixon (Friends of the Earth Scotland and Stop Climate Chaos Scotland)
John Glen (Buccleuch Group)
Alex Hill (Met Office)
Lady Susan Rice (Lloyds Banking Group Scotland and Scotland's 2020 Climate Group)
Judith Robertson (Oxfam Scotland and Stop Climate Chaos Scotland)
Charles Stewart Roper (Scottish Government)
Felix Spittal (Scottish Council for Voluntary Organisations)
Paul Wheelhouse (Minister for Environment and Climate Change)

CLERK TO THE COMMITTEE

Lynn Tullis

LOCATION

Committee Room 1

Scottish Parliament

Rural Affairs, Climate Change and Environment Committee

Wednesday 20 February 2013

[The Convener *opened the meeting at 10:02*]

Decision on Taking Business in Private

The Convener (Rob Gibson): Welcome to the sixth meeting in 2013 of the Rural Affairs, Climate Change and Environment Committee. Committee members and members of the public should turn off mobile phones and BlackBerrys, as leaving them in flight mode or on silent will affect the broadcasting system and we want to be heard and seen.

Agenda item 1 is a decision on taking business in private. The committee is asked to decide whether its consideration of its letter to the Scottish Government on biodiversity should be taken in private at future meetings. Are we agreed that that should be taken in private?

Members *indicated agreement.*

"Low Carbon Scotland: Meeting our Emissions Reduction Targets 2013-2027"

10:03

The Convener: Agenda item 2 is a round-table evidence session on "Low Carbon Scotland: Meeting our Emissions Reduction Targets 2013-2027—The Draft Second Report on Proposals and Policies". This is the third such session with stakeholders. Today, we will concentrate on climate change governance, on the development of RPP2 and on some technical issues.

I very much welcome our witnesses. I ask everyone round the table to introduce themselves, so that everyone knows who is who. When we kick off the questioning, anyone who wants to speak should indicate to me, and I will bring them in.

I am Rob Gibson, the convener of the committee and the MSP for Caithness, Sutherland and Ross. To my left is our clerking team.

Jayne Baxter (Mid Scotland and Fife) (Lab): I am an MSP for Mid Scotland and Fife.

John Glen (Buccleuch Group): I am the chief executive of Buccleuch and I am also a member of the 2020 climate group.

Claudia Beamish (South Scotland) (Lab): I am an MSP for South Scotland and I am shadow minister for environment and climate change.

Lady Susan Rice (Lloyds Banking Group Scotland and Scotland's 2020 Climate Group): I am Susan Rice, from Lloyds Banking Group Scotland. I also have a connection to the energy company SSE. I was one of the founding members of Scotland's 2020 climate group.

Richard Lyle (Central Scotland) (SNP): I am an MSP for Central region.

Dr Richard Dixon (Friends of the Earth Scotland and Stop Climate Chaos Scotland): I am director of Friends of the Earth Scotland and I am a board member of Stop Climate Chaos Scotland.

Judith Robertson (Oxfam Scotland and Stop Climate Chaos Scotland): I am the head of Oxfam Scotland and I am a board member of Stop Climate Chaos Scotland.

Nigel Don (Angus North and Mearns) (SNP): I am the MSP for Angus North and Mearns.

Dr Ute Collier (Committee on Climate Change): I am from the Committee on Climate Change, where I head up the work under devolved Administrations. I also work on buildings and carbon footprints.

Alex Fergusson (Galloway and West Dumfries) (Con): I am the MSP for Galloway and West Dumfries.

Calum Davidson (Highlands and Islands Enterprise): I am the director of energy and low carbon with Highlands and Islands Enterprise.

Jim Hume (South Scotland) (LD): I am an MSP for South Scotland.

Felix Spittal (Scottish Council for Voluntary Organisations): I am a policy officer with the Scottish Council for Voluntary Organisations.

Angus MacDonald (Falkirk East) (SNP): I am the MSP for Falkirk East and parliamentary liaison officer to the Cabinet Secretary for Rural Affairs and the Environment.

Alex Hill (Met Office): I work for the Met Office. I have a long title that says that I am "Chief Advisor to Government (Scotland and Northern Ireland)".

Graeme Dey (Angus South) (SNP): I am the MSP for Angus South and I am the deputy convener of the committee.

The Convener: Welcome, everyone. I will kick off by asking about the science and emission trends, just so that we can set the picture. Perhaps I could ask Alex Hill and Ute Collier briefly to update the committee on the latest climate change science and on global emissions trends.

Dr Collier: Alex Hill can answer that.

Alex Hill: The science is continually developing and is huge. Papers on climate science and climate change come out virtually daily. In recent years, that work has looked more at somewhat shorter-term climate change, over the next 10 to 15 years, which is crucial for RPP2. The original driving force was UKCP09—the United Kingdom climate projections project from 2009—which is now nearly five years old, so it is getting terribly elderly.

The work that is going on at the moment is principally around two things: the attribution of extreme events globally—that is based on work that we are doing along with many other organisations—for which the first report for 2011 was published just recently; and getting a lot more detail for the next decade that, we hope, should provide a focus for people in thinking about what we can do at the moment in weather.

For me, the thing that makes RPP2 a little curious is the focus on annual targets. That makes it a little easy to get thrown off course because of one year's difficulty, such as when we had that particularly chilly spell in 2010. Taking that into account requires a little bit of thought and effort. Putting all that into a box and saying that we will deal only with emissions is, I think, a bit of a problem. We need to be able to link those to adaptation measures and we need to be able to see that the adaptation measures are going in the right direction by providing not only greater resilience for the Scottish economy but a reduction in carbon output at the same time.

The latest work by Professor Kevin Anderson of the Tyndall centre for climate change research suggests that the Intergovernmental Panel on Climate Change's ambition to limit the increase in global temperature to a rise of 2°C is probably not achievable. He reckons that we should in fact aim for a 1.5°C rise in order to reduce the impact. There are lots of sciency things going on in the background that continually need to be updated, so that should be taken into account.

Dr Collier: I do not have the numbers on global emissions trends at my fingertips because I was not sure that we would discuss that today. However, the overall trend is still upwards. By the end of the Kyoto protocol first commitment period at the end of 2012, some countries had achieved their commitment but many others had not.

Another problem, of course, is that many countries are not in a global deal, including big developed countries such as the US and Canada and developing nations. People may have heard some slightly more positive stories about US emissions falling because of the switch from coal to shale gas, but we need to be careful about those figures given that we currently understand very little about the life-cycle emissions of shale gas. In addition, China is still building lots of coal-fired power plants. As the Committee on Climate Change has pointed out before, even though we have seen some falls in emissions in the UK, a lot of that has been due to the recent recession. Time and again, we have said that we still need that step change.

The Convener: That sets us up. There will be plenty of room for people to come in during the questions. If you allow us to move into some of those areas, we will bring in as many people as possible.

Angus MacDonald has a question on the missed 2010 targets, which Alex Hill alluded to.

Angus MacDonald: As you will be aware, the draft RPP2 includes text that sets out proposals and policies to compensate for the missed 2010 targets. Although the targets were not met, Scotland's emissions are reducing. In fact, I believe that we have had the biggest fall in the European Union 15. The challenge is increasing—everybody is aware of that—but it is worth noting that we are over halfway to achieving our target of a 42 per cent reduction in emissions by 2020.

Does the draft RPP2 adequately outline the response of the Scottish Government to the

missed 2010 target, and is the explanation of that within RPP2 adequate?

Dr Dixon: The document says a couple of things on the missed target. It says that we missed the target partly because it was a cold winter. During the formulation and passage of the bill, there was quite a bit of discussion about annual targets and whether they would be difficult, because weather can cause a considerable variation from year to year. Stop Climate Chaos Scotland said that of course that was true and that we would be somewhat sympathetic if Scotland missed a target because of exceptional weather, but that it would be much better to have annual targets to know whether or not we are on track. We made that compromise: we would have annual targets because they would be a useful way of ensuring that civil servants, politicians and the rest of society concentrated on trying to deliver, but we would need to be at least somewhat accepting of exceptional circumstances that might mean that we missed a target.

We missed the 2010 target partly because of weather and partly because of other factors. Temperatures in 2011 were more normal, so we think that we will probably scrape through to meet the 2011 target, but it will be quite close. It will be harder for 2012; we have either missed or hit the target. I suspect that we have just missed it, although we will not know that for about 18 months.

When the bill was being put together and when it was passed unanimously by the Parliament, we expected that if a target was missed, ministers would say, "Well, we've missed this target. Here are the things we'll do immediately to make up for that problem." What RPP2 says, however, is that the Scottish Government will "over achieve" over a number of years to get back the ground that has been lost. If a target has been missed by 1.4 million tonnes and the Scottish Government overachieves in a number of years, it actually means that it is very much in danger of missing several more targets while it is getting back to where it should be.

We expected a much more urgent response, to say, "We have actually missed this by quite some way. The weather is part of that, but we will do some extra things immediately to get ourselves back on track so that we don't endanger any future targets." However, the way I read RPP2, it says, "For the next five years we may just miss all our targets because we are still catching up from 2010." I find that very unsatisfactory.

The Convener: We have had a very clear presentation from a theoretical point of view to add to that.

Dr Collier: I can give you some figures on this. On 12 March, the Committee on Climate Change will produce its latest progress report on the Scottish targets. Richard Dixon alluded to the problem that we have on data delay. We have firm 2010 data only now, but that is what we are concerned with to assess whether the first target has been missed. We agree with the Scottish Government that it has been missed by just more than 1 million tonnes.

The issue really is the cold winter. When you break down the data and look at it you see that residential sector energy demand went up by 15 per cent, which was mainly gas demand. In fact, the Scottish figures are exactly the same as the UK-wide figures, which showed exactly the same thing.

10:15

Weather adjusting can be done. We have looked at that at the UK level, but we are also looking at it for Scotland for the latest report. If the residential energy demand is weather adjusted, we find that the underlying trend is falling, which is good news. In relation to residential energy demand and energy-efficiency measures, Scotland seems to be getting more than its share from the UK-level measures—the big measures such as the carbon emissions reduction target.

We are probably not so concerned about the 2010 target; the issue is the situation going forward. I am sure that we will discuss the fact that the Scottish Government suggests that Scotland will miss all the targets unless the EU moves to a 30 per cent target.

Angus MacDonald: I take on board Dr Dixon's point about overachieving, but I hope that we will not miss the targets over the next five years. As he said, RPP2 shows that it is possible to compensate for missing the 2010 target by beating targets in future years. I hope that we will not have such a dire winter as we had in 2010 for a number of years.

Ute Collier commented on the EU setting a target of 30 per cent. I believe that more than 14 million additional tonnes of CO_2 could be cut from Scotland's emissions from 2013 to 2020 through the EU emissions trading system. Does any panel member have a comment on that?

Dr Collier: Are you asking whether that level of abatement is possible through the EU ETS?

Angus MacDonald: Yes—if the EU target is set at 30 per cent.

Dr Collier: The way in which annual targets are set in Scotland is based on taking whatever the EU ETS is set at. If the EU moves to a more stringent target, Scotland will automatically get

more abatement from the power sector and heavy industry, which means that slightly less can be done in other sectors.

Dr Dixon: Whether the EU will move to 30 per cent is a key issue in relation to RPP2. The 2009 act says that the RPP needs to set out

"the Scottish Ministers' proposals and policies for meeting the annual targets".

RPP2 obeys the letter of that, but we will meet the annual targets only if every policy delivers exactly as envisaged, if every proposal is turned into a policy in a timely fashion and delivers everything that it should deliver and if Europe goes to 30 per cent.

There is absolutely no slack. If anything goes wrong—if any policy does not quite deliver, if any proposal is implemented six months late and particularly if Europe does not move to 30 per cent—we will miss some targets. RPP2 obeys the letter of the 2009 act, but what it really defines is how the Scottish ministers hope—on a wing and a prayer—to squeak through and meet all the targets, if they are lucky, rather than providing a sensibly prudent and comfortable plan that gives us enough slack to say that we will definitely meet the targets.

We all very much hope that Europe will move to 30 per cent. It will be pretty embarrassing if the actual reduction by 2020 is well over 20 per cent and approaching 30 per cent, but 30 per cent was never set as a target—that is quite likely to happen if 30 per cent is not set as the target.

However, the Committee on Climate Change gave Scotland advice a year ago, which must have been in the previous progress report, that said:

"Given uncertainty over whether the cap will be changed"—

over whether Europe will go to 30 per cent—

"the Scottish Government should explore scope for further emissions reductions across the non-traded sector."

A year ago, the Committee on Climate Change told us that, when RPP2 was written, some slack should be built in so that, if Europe does not move to 30 per cent or we do not move as quickly as we would like, there is enough in RPP2 to ensure that we can still meet all or at least most of the targets. My concern is that there is no slack in RPP2.

The Convener: A number of people want to come in on this point.

Nigel Don: I think that what I want to ask is on this point, although I am taking a step back to Dr Dixon's first comment. You feel that the Scottish Government should have come up with other things to do immediately—and I understand that point within the mathematical scheme of things. What might those things be? It is very easy to make the point, but what should we be doing?

Dr Dixon: There are policies on which we could move faster. Across all sectors, I find that different civil servants have different attitudes. Some sectors are very enthusiastic, know exactly what to do, and would like to do more than they are doing today. Housing is a good example of an area in which a lot more could be done if we just put more money in, and it would give us social and economic benefits as well as climate change benefits. Some sectors are rather resistant, and transport is the best example of that. It kind of knows what to do, but it does not talk about some of it because it has had reports about policies that are deemed to be politically unacceptable so they do not make it into the further discussions. More could be done in every sector. In housing, there is stuff that we could quite easily do because it would mean moving with the grain, whereas although there is stuff that we could do in transport, we would be pushing against the grain to some extent.

Obviously, it is impossible to turn everything around on a sixpence. I am looking for a specific set of proposals in RPP2 saying that, because we missed the 2010 target, the Government will spend an extra couple of hundred million pounds on insulating people's homes faster than it had otherwise planned to do, or it will invest in more cycleways or do more smarter choices work to help people to travel in different ways. Plenty of things could have been included in the RPP, but are not in there.

The Convener: This committee is one of four that is looking at the RPP, so there are other, appropriate places for discussing transport. Although you were led into discussing it, Dr Dixon, we will have to park it for the moment. We need to look at some of the things for which this committee is responsible.

Lady Rice: I have a couple of brief comments to make. I am the layperson among today's witnesses, who are all experts in one way or another, so my comments will be general.

The RPP states the two main reasons for the shortfall in 2010, which were rebasing the start point and the weather. There are also other reasons and, although it would be helpful to understand them, it would be even more helpful to understand some of the possible challenges to future targets. I will name one that I do not hear people talking about. In the 1990s, the population of Scotland gradually shrank, which was not a good thing economically or socially. About 10 years ago, the population started to grow again, which was a good thing for Scotland in social and economic terms. However, more people means more energy usage, so it would be helpful to look

forward and to understand some of the other pressures and challenges that might come along so that we can anticipate and address them.

That relates to my other point which is simply that it would be good to have a plan B for shortfalls. The document lists a number of policies and propositions, and we have RPP1. With my businessperson's hat on, I would say that those will never come out as planned. We must do our best and try to reach our goals, but we should have a plan B; let us have some other ways of dealing with potential shortfalls.

Judith Robertson: We have had increasingly erratic weather, but relying on the hope that more bad winters will not stop us from achieving targets is not an adequate way of dealing with contingencies. I want to reinforce Stop Climate Chaos Scotland's point that unless we build in increasing levels of space and flexibility, and have more measures rather than just enough, given a lot of other contingencies, we will fail.

Speaking with my Oxfam hat on, I suppose that we are interested in ensuring that this is done in a socially just way; that the costs are not, as they currently are, borne by some of the poorest people either in Scotland or globally; and that the targets are met. After all, we see the immediate impacts of climate change all around the world and how people are failing—and are failing to be given support—to cope with them. Certain things that are not in RPP2, such as the Scottish Government's climate justice fund and international development fund, are positive global measures. The adaptation processes that have been referred to must also be recognised in Scotland.

It would also be very good if, in RPP2, the Scottish Government could be very explicit about its role in lobbying with the UK Government in relation to the EU's 30 per cent emissions target and the action that it can take in Europe in that respect. Given that plenty of people are lobbying against the target, we need an explicit statement of the steps that we are taking to support it and that aspect of the report could be strengthened.

The Convener: We were going to ask about that issue later, but I wonder whether Jim Hume will follow up that question just now.

Jim Hume: I could do that. What are the implications of the calculations set out in pages 166 and 167 of the draft RPP2 that hitting all the annual targets to 2027 will require the 30 per cent EU emissions cut as well as the implementation of all the policies and proposals?

The Convener: Does no one wish to respond? That's fine—we will move on to the next question.

Richard Lyle: I found Dr Dixon's comments enlightening and thought provoking, but the fact is that because of the cuts to our budgets we cannot really find £300 million right away for housing. Have ministers struck the right balance between policies and proposals in RPP2?

Dr Dixon: No. It is reasonable to think of something that might be—and can only be—done in the far-away years as a proposal; after all, this Government cannot commit a future Government to doing something very far in the future and, in any case, there would be many uncertainties surrounding such a policy, such as how much it would cost, the technology that would be involved and so on. Although I think it reasonable for the document to contain some proposals, I feel not only that the balance is wrong, but that we have gone backwards and that there are more proposals and fewer policies in, for example, transport than there were in RPP1. Having moved on two or three years and delivered some of these things, we should have more firm policies and fewer proposals for the decade or so that we are dealing with, but the fact is that more uncertainty is arising in some sectors. I hope that through this parliamentary process you can make a difference by persuading ministers to turn some of the proposals into policies, so that we can have a plan that has a bit more certainty.

Richard Lyle: What do you recommend in that respect?

Dr Dixon: On transport, which is a subject that I have looked at in some detail, certain measures that the RPP calls proposals are things that we are already doing quite a bit of, but not enough to call them a policy. We are quite close in some respects. For instance, the smarter choices work, which can result in quite a bit of emissions reduction and goes to a certain extent to the heart of the problem in transport—car use—is very good, but we are not doing enough of it to be able to call it a policy that will deliver the numbers in the document. If we did a bit—or, indeed, considerably—more of it, we could call it a policy. In such areas, there is the potential to do just a little bit more and then be able to say, "This is not a proposal but a firm policy. We are really doing this."

10:30

The Convener: It is nice to know that 400 people have offered car-sharing for people who are trying to get across the Kessock bridge in Inverness. People are taking action.

Alex Hill wants to talk about the European angle and RPP1 and RPP2.

Alex Hill: I was interested in what Judith Robertson said about creating a space that will

allow new systems to be developed quickly. RPP2 does not do that particularly well; we need to think a bit further ahead and use what science is available to us. In fact, I am talking about abusing the science in some ways, so that we can get to some much clearer definitions

I can give you a couple of examples. In paragraph 1.5 of the draft RPP2, there is lots of talk about insulation, renewable heat and so on, but there is nothing about cooling. In city centres, many offices run temperature maintenance, so if the summers get warmer, the amount of energy that will be needed to cool buildings will be much greater than the amount that is necessary to heat them. We need to identify the kind of space that we can use to consider how we can adjust the overall policy in the broadest fashion. We have a long way to go; 15 years is a long time. The weather will change dramatically and climate change will impact on supply chains all the way down the line, so we need to think in a broader way and use realistic science.

The chapter on waste and resource efficiency does not mention sources of waste, such as multibuys in supermarkets and fixed-size packages—when you buy 500g of mince and only use 350g of it for a particular recipe. Such issues are not mentioned, but in them we could find the space that Judith Robertson was talking about.

Graeme Dey: I absolutely accept that point. We talk about creating wriggle room in the plan for the future. Surely the greatest potential for creating wriggle room lies in creating mass behaviour change. Are we doing enough to encourage people to change the way in which they go about their lives?

Judith Robertson: From SCCS's perspective, one of the biggest behaviour change options would be transport. I appreciate that this committee's focus is not transport and that another committee deals with it, but the committee's focus is on climate change and one of our biggest emissions creators is transport. We need the space to discuss the implications of RPP2 in relation to transport. We need more initiatives on cycling, walking, car-sharing and travel planning. Such initiatives exist, but could be supported much more strongly.

There are also mixed messages from Government because of massive infrastructure projects that encourage car use as opposed to putting in investment that could limit car use or which could support public transport, green energy use and buses, which seem to me to be much more positive processes, although they require that we look across policy rather than just at climate change targets.

Graeme Dey: It is not just about Government going where we need it to go; it is about all of us making our contribution. What does SCCS feel is its responsibility? It is a mass membership organisation, so what practical things is it doing to get over to the public the message about what simple changes in their behaviour patterns could mean for the environment?

Judith Robertson: The organisations in Stop Climate Chaos do a huge range of things to encourage their members and the public to take carbon-reducing action. We have a vast range of organisations so, for example, transport specialists focus clearly on reducing car usage, and Oxfam is interested in a range of quite small-scale activities around food use and food waste. That approach applies to all our members. We have not assessed what that would add up to in terms of emissions reductions.

The Government has a really important leadership role because it sets the scene and tone, and it gives direction. If the messages that are coming from the Government are mixed, that effectively lets the public off the hook as far as participation is concerned.

It is the Government's role that we are scrutinising in this conversation. From our perspective, it is a matter of ensuring that the message is being given out across Government. We talked about the procurement legislation, for example. We have taken the word "sustainable" out of the legislative process; that sends another message. Why are we withdrawing that word? Why is the Government taking it out of the process? I am talking about the Government's biggest spending process, and we have withdrawn from building sustainability into it explicitly in the title. The Government's role in providing a consistent message is important to the public; it is important for them to see and hear that message and then to feel its impacts on their lives.

The Convener: We must soon wrap up this session on RPP1 and draft RPP2, but Jim Hume and Susan Rice want to come back in.

Jim Hume: Yes. We have not heard from all the committee members, and perhaps it would be interesting to hear from some of the other witnesses, particularly on the points that Alex Hill made about RPP1 and whether it provides an adequate overall policy framework, and whether the draft RPP2 adequately reports on progress. Does the draft RPP2 contain sufficient details on policies and proposals and who is expected to lead? We have already heard what Judith Robertson thinks.

The Convener: I think that we have got the message.

Jim Hume: Many measures in the draft RPP2 will require voluntary action in order to achieve the necessary abatement. I am interested in hearing the witnesses' thoughts on whether there is the right balance between incentives and regulation in the draft RPP2.

The Convener: The latter point is very good.

Lady Rice: My comment relates to that last point. I thank Jim Hume for teeing it up.

I very much endorse the view that behavioural change is absolutely fundamental to our ability to achieve what is needed in this venture and to get to where we want to be. That is up to everybody: it is up to the business community and up to us as individuals. In a sense, the 2020 climate group has taken that on as its brief by bringing together people from across business sectors and other sectors, and by challenging, sharing ideas and coming up with new ways to do things and specific ways to engage the population and the community.

I know that you do not want to talk about transport, but an example of a new 2020 project is the travelwise project. My company—Lloyds—has the largest fleet business in the United Kingdom and is making electric cars available to companies that want to try them out. That is how to get behaviour change. We must dig down and not pontificate at a high level, but go in on a specific level. There are many other such examples. This is a body of people whose voice spreads out to those with whom they work, and who do such work as well. I do not know what the balance is, but it is very important.

The Convener: We should try to move on to costs. We must get a clear idea of whether RPP2 deals with them.

Jayne Baxter: There has been a lot of talk about behaviour change, which underpins meeting the targets. There will have to be winners and losers on all fronts. The draft RPP2 does not quantify the distribution of expected costs across groups such as the Government, businesses and individuals, but the technical annex describes in broad terms who might be expected to meet the bill for several policies and proposals. Is the draft RPP2 sufficiently clear on where the financial costs of the document will be incurred?

Dr Dixon: To address also Jim Hume's question about the level of detail, I think that there is some frustration that there is less detail in RPP2 than was in RPP1. That is particularly a frustration in the context of comparing what Scotland decides in the budget process every year with what we need to do to achieve the targets. Committees flagged up that frustration with RPP1; I think that it is even more of a frustration with RPP2. That is partly because RPP2 has lost some of the detail on milestones. For instance, RPP1 showed how many lofts we would try to insulate, but most such detail is missing from RPP2, so it is hard for us to track.

Another frustration is about the financial side. There is a fair amount of detail about how much it all might cost, but information is sketchy about whether it will be public expenditure or private expenditure, and whether it will be a cost that will come back to individual members of society. It is important for us to know that.

It is even more frustrating that although there is an attempt to talk about benefits, the document acknowledges that it is very incomplete. We have one large figure for implementation and a smaller figure for the benefits to society of doing all this stuff—whether that is better health, or less air pollution, or more cohesive communities—but the numbers are incomplete. From the figures in RPP2, we could conclude that there will be a net benefit, but if it contained a full benefit analysis, we might conclude that what it contains is the right thing for Scotland to do socially and economically as well as for climate change. Obviously, civil servants have worked hard to get the benefits numbers into the document, but because the numbers are not complete, it is difficult for Parliament and the committee to see the full picture.

To come back to Jayne Baxter's points about winners and losers, one of the most important things for all the members of Stop Climate Chaos Scotland is that, if we make fundamental changes that create winners and losers in society, we absolutely have to make sure that we protect the most vulnerable. That message runs through RPP2, but it is hard to see in the detail of practice and policies how it will be done.

Felix Spittal: Richard Dixon partly made my point. There will be winners and losers, financial costs and economic benefits, but RPP2 does not report much on additional social benefits. The environmental assessment goes some way towards addressing environmental concerns about better air quality and so on, but there is not much about how, for example, if a home is insulated, bills will reduce and it might prevent the household from going into fuel poverty. There is not enough about the health and other social benefits that will come from the policies and proposals. It would be nice to see those in an annex.

John Glen: I come back to the question of addressing costs. One thing that is missing from the RPP is to do with behavioural change. If you want individuals or organisations to own behavioural change, we have to feel that we are engaged in a process in which we understand the trade-off. We are somehow papering over a lot of the trade-offs—which might be real or might be

fictional and exist only in people's minds. We need to have that discussion and get some clarity about the trade-offs, then get people to own their action.

At the moment RPP2 feels like very much a top-down exercise. We can get all heated because behaviour has not changed, but the people whom we are asking to change do not own the process. We can regulate it and force them to change, but if you want people to do something voluntarily, you have to get them to own it. If a person or an organisation is to own something, they have to feel that they have had a look at the trade-offs and that it has the appropriate priority in the hierarchy and ranking of things that they are trying to manage. I do not feel that that is adequately addressed in RPP2.

Felix Spittal: I just want to come back on the point about behaviour change and whether the RPP is top-down. RPP2 feels very much like that. It should be top-down as far as strategy, legislation and finance are concerned, but we would get much better behaviour change from the bottom up—from the community, voluntary organisations and networks that already exist. People in the community are much more likely to believe in and buy into something that is delivered locally by people they know and organisations that they trust. That is missing from RPP2. Hopefully there will be more detail when the framework is published. There needs to be a better behaviour-change strategy overall.

10:45

Alex Hill: I back up what has just been said. I have seen the work that is being done at community level in Comrie, for example, or up your way, convener, in Transition Black Isle's let's go greener together campaign. An awful lot of community work goes on and we need to examine whether there is a disjoint between that work and the RPP2.

It struck me that one of the Scottish Government's long-term objectives is some form of wellbeing. That is not entirely financial, and we need to think a little bit in RPP2 about the social benefits in many different arenas. If you feel better and your health is better, you spend less money on energy. However, that is simply not measured because we are into measuring carbon only, how much it costs and what the benefit is. There is no social context to say that it is better because you will feel better.

Dr Collier: We need to keep in mind the fact that RPP2 goes to 2027. Although it is true that there is not so much detail on costs as there was in RPP1, that is acceptable to some extent. When we do such analysis, our economists come up with ballpark figures. One sometimes wonders how meaningful they are because of the lack of detail. What do we know about how technology develops or incomes develop? The further into the future we forecast, the more uncertainty we have.

As Stop Climate Chaos has pointed out, one of the things that makes assessment difficult is that we do not get a clear view because Scotland is not acting on its own: some of the measures are UK or Great Britain-wide measures and some are European Union measures and we do not get a clear sense of who is responsible for what. For some measures, we may have had cost assessments by the EU or the UK, but we cannot see them. That sort of detail would be helpful. We still need to keep in mind the fact that cost assessments for 2027 will be very uncertain.

Calum Davidson: It is important to realise the behaviour change that can come from strong economic activity on the back of decarbonising Scotland's economy, although it is difficult to legislate for it.

In the part of Scotland I come from—the Highlands and Islands—there has been significant growth in community resilience on the back of low-carbon activity in Orkney, the Western Isles and Shetland, where real jobs and real opportunities are being created. That is being driven by the Scottish Government's 2020 electricity generation targets, which are driving forward a significant change in the industry throughout Scotland and doing on the ground what the committee has been talking about.

John Glen: There is a need for segmentation of the types of changes. There are changes in behaviour that we are looking to achieve at a very disaggregated level—individual behaviour—and there are others that involve adjusting a current stream of behaviour. Other measures that are completely changing behaviour are different in nature and the tools that we use to effect the changes are different. Other changes are not about many people individually making decisions, but are about decisions that are made further up a chain. If there were a bit more segmentation of types of changes and the tools that are relevant to each type of change, accountability might be better.

We are measuring everything by an output, but it is not clear to me whether that output is a consequence. Whether we did the things that we said we would do and whether they had the consequences that we thought they would have are two different things. If we could clarify whether we did what we said we would do, we could then also consider whether we need to revisit the correlation between an action and the consequence, if the output is not what we thought it would be. We need to be able to dissect the results analysis into whether the outcome was the

result of not doing the promised action, of the consequence of the action not being what we forecast or, for example, of the weather changing. Work could be done to make RPP2 a better document by which to hold people to account with a bit more clever segmentation of the nature of change.

The Convener: Perhaps we can hear a response from Richard Dixon before Jayne Baxter moves on to the next part of her question.

Dr Dixon: I will follow up on that briefly. Having read the Scottish Parliament information centre briefing on the RPP2, I would say that, if SPICe cannot understand what is proposed in some areas, there is little chance of us mere mortals understanding it. Clearly, more work needs to be done to spell out what is proposed and to include some of those milestones that John Glen suggested so that we really understand what we are trying to deliver. I hope that the committee will press the minister on that when you get the chance to speak to him.

Jayne Baxter: Convener, I think that my second question might have been covered, but I will ask it anyway in case anyone feels that they have more to add.

Can the witnesses outline how the costs—not the financial costs, which we have already talked about, but the social and economic costs along with the options and issues—of implementing the policies and proposals could have been incorporated into the draft RPP2? I think that we have covered that, but people might want to add to what has already been said.

Judith Robertson: I will make a brief point about how RPP2 is integrated across Government policy beyond the climate change legislation. It seems to me that the national performance framework, for example, is intended to look across Government policy at what Government's outputs and indicators are. There is nothing to stop Government using RPP2 to look at the national performance framework through the lens of the climate change legislation, and vice versa. However, we have an issue with the national performance framework having as its principal driver economic growth rather than the sustainable thriving of Scotland.

To come back to Alex Hill's point on the wider implications, Oxfam has produced a humankind index of prosperity in Scotland, which is a broader measure of prosperity that includes a range of environmental, social and economic factors. A broader range of measures—I am not seeking to reduce the scientific nature of carbon emissions reduction measures—could give scope for a broader range of steps to be taken on behaviour change, including behaviour change on the part of Government, the public sector and the private sector. An interesting point is that everyone wants to put the responsibility on to the public without considering who is leading that public behaviour change. A range of actors could do that effectively.

There is scope for integrating more measures across Government and to have a more iterative process.

Alex Hill: That point is backed up by the Joseph Rowntree Foundation, which has done a lot of quite strongly evidenced work on the subject. Its report—which is short, pretty and certainly worth reading—is about measuring not just how much money we generate but the broader feeling among individuals in society.

Claudia Beamish: On the complements to gross domestic product—or however one wants to term them—do the witnesses believe that it would be relevant to have those highlighted within annual targets or parallel to gross domestic product in order to help us to assess not just the carbon emissions but the social impact and wellbeing to which Judith Robertson referred? Should those measures be disaggregated when they are reported on, so that people can understand what they mean?

Judith Robertson: Oxfam sees such measurements as a guide to policy decision making. Annual reporting would prove that, but it seems to me that those factors come into play up front, prior to decisions being made. If we took into account the environmental, social and economic outcomes across society for any decision that was pending, we could more accurately make decisions that led to a range of benefits rather than just make an assumption—that we would question—that an economic benefit will provide a wide range of societal benefits.

I will—yet again—use the example of a transport decision. If we decide to have a replacement Forth road bridge or build an extension to the M74, we must consider a range of economic and carbon impacts. That is the case particularly for big one-off infrastructure spends. It feels like we have genuine choice with such projects, whereas education and a range of other budgets are fundamental expenditure in which it is not possible to do that. The forthcoming procurement legislation has the potential to do that but, at the moment, we do not see that coming through.

The Convener: A lot of things could be said in response to that. However, we must stick to interrogation of RPP2. Although it is a fledging document, it is possibly a world leader in grappling with the problems, and we are dealing with things that are important.

John Glen: I will give another example of how we should deal with some of the issues. The RPP2 includes an ambition on the country's heat profile and how we deal with it. A solution is to go down the biomass route. We would ideally want that at an appropriate scale, with delivery of the fuel from a particular radius. What is the link between that and a woodland planting target of 10,000 hectares a year, which is a target that I think has been migrated to 100,000 hectares over 10 years? There is a lack of definition in that to say that there is a big difference between what is for carbon sink purposes and what is for commercial forestry that would support an ambition on the heat side. When you go down that route you must say that although local communities may not want an entire farm planted for commercial forestry, that is what is needed to meet the biomass ambition. They may well feel differently about putting sensitive native woodland planting in the valleys, which cannot be harvested.

Some of the thought processes need to be linked to asking what the genuine cost is when you get down to local level. I am not aware of the space of where the debate takes place. Unless you get that, you will not get ownership.

The Convener: We can note those points. Wellbeing and how we interpret it is a wide matter that concerns us. We will reflect that in how we question the minister.

I must return to carbon for a minute or two. Is it reasonable to conclude that the cost for each tonne of carbon dioxide equivalent abated is expected to reduce over time?

Alex Hill: The answer depends on which economist you read, to be frank. Certainly, the evidence from America is that if the carbon cost is increased to about $300 per tonne, there would be a huge impetus to reduce carbon use. However, at its present level, the impact appears to be relatively small.

Dr Collier: We certainly build in assumptions for considerable cost reductions. It depends on what we are looking at. Some energy efficiency measures are cheap, but some are expensive, such as offshore wind. With fairly new technology such as that you can make assumptions about the technology improving—people are already finding ways of making foundations cheaper, for example. However, we still need to make a huge jump, because unless we assume that it will become cheaper, we have little hope. We must make the approach reasonable and accept that the costs of mitigating the impacts of climate change may well rise. Things will balance themselves out.

Calum Davidson: I will follow up on that point about cost reduction and electricity generation. Offshore wind costs £150 per megawatt hour installed, which is similar to the figures that are being talked about for nuclear power. Clearly, the ambition right across the industry is to get costs down to the same level as onshore wind, which, at £100 per megawatt hour is the cheapest form of no-carbon electricity generation. The whole industry is focused on that. To be blunt, unless the industry and the Government—through legislation—solve that problem, we will not reach the target. The target has to be reached, rather than there just being an ambition to reach it.

11:00

The Convener: There are two issues that we must consider: embedded carbon; and the consumption elements related to China expending carbon and our consumption of it. The RPP2 talks about our actions, but we cannot, in the overall picture, change people's behaviour unless the wellbeing concept gets through to them and they think about how the wellbeing of people in other parts of the planet is affected as a consequence of their actions. Carbon price and so on has quite a bit of relevancy in this area. We are learning quite a bit as we go along.

We move on to the issue of climate change governance.

Claudia Beamish: We have heard today that there is a possibility that mixed messages are coming from the Government—my comment on that is that that is probably the case at all levels of government in all countries. We have also heard about the need for a step change. Do you think that the Scottish Government and its agencies are appropriately structured and resourced to deliver the transformational outcomes that are necessary?

Dr Dixon: On messages, I will say something positive about the RPP—I have not done that so far. There are some strong and good messages in the document. The ministerial introduction and other parts of the document contain good messages about the importance of a 2°C limit on temperature rise on the planet. There are some strong messages about the importance of action in Europe. Further, it is good that a number is put to the previous commitment to largely decarbonise the power sector. Those are all good steps forward and are strong messages from the Government that it wants to deliver on the plan.

I meet senior civil servants who are embarrassed about having missed the 2010 target and appear to want genuinely to try extremely hard to meet the rest of the targets. There is no question that the RPP is greenwash or a sham. There are definitely people in Government—on the civil service side and the political side—who

absolutely want to deliver on the plans and meet the targets.

Where things fall down is when it comes to the detail. As Claudia Beamish points out, we have not had the necessary step change, which is a phrase that came from the Committee on Climate Change. We need a step change in policy to ensure that we can meet the targets. We have lots of incremental targets, but we have shied away from some of the difficult ones.

Although ministers have had bilateral discussions about what each is doing in their brief with regard to climate change and what they can do to help each other, I am not sure that that has translated into the document in many cases, and I do not think that it has translated into a discussion about how we think about Government finance.

There is a study down south that shows that, if you spend £1 insulating someone's home, you will get nearly 50p back in savings in the health budget, because you have made those people healthier. I do not think that the Cabinet Secretary for Rural Affairs and the Environment has spoken to the Cabinet Secretary for Health and Wellbeing and said, "Give me some of your budget so that I can spend it on insulation, which will save you money." That is the sort of conversation that people need to be having. The costs and benefits in the RPP are separate from the discussions that the Government and Parliament have about the budget. Particularly when it comes to money, we need to be much more joined up.

The Convener: That is partly why we have four committees considering the RPP2 at the moment.

What do you have to say about the issue of resources that Claudia Beamish asked about? Do you think that the Government and its agencies are appropriately resourced to deliver the changes?

Calum Davidson: I will offer an observation as somebody who works at the heart of the decarbonisation of the electricity sector, in an enterprise agency. I have worked in the public sector in enterprise for 25 years, and my experience is that the step change and shift in resource within Government and the enterprise agencies to deliver the 2020 target has been dramatic, particularly in relation to delivering wave and tidal energy, onshore wind and, crucially, offshore wind, which will decarbonise the whole energy sector, but with a focus on economic development. That shift has been the best that I have seen in 30 years, particularly in relation to the Scottish Government resource that is now allocated to the large infrastructure that is required to deliver offshore wind.

The Convener: Are there any other comments on resources?

John Glen: I can give a couple of examples that go across the border between Scotland and England.

The report does not talk about hydrocarbons, but unconventional gas is perhaps a temporary solution to get us part of the way. However, at the moment the configuration of the Coal Authority and the oil and gas function does not manage the reality of the way in which hydrocarbons are evolving. They both sit under the Department for Energy and Climate Change but they do not really talk to each other.

There is a clear difference of view between England and Scotland on the renewable heat incentive. The scheme incentivises large-scale developments much more than small-scale ones, because they go into the renewables obligation certificate system. At the smaller end, we are incentivising inefficient ways of spending taxpayers' money to shift energy consumption, and we are ignoring that most of Scotland's interest is in economic approaches to schemes in the 1MW to 10MW heat footprint. That is where the consumption is easiest to access and where the bang for our buck is if we want to change. However, that is a blind spot right now, because it is not the priority in England.

The Convener: That is a matter for the Economy, Energy and Tourism Committee to interrogate, I hope.

John Glen: I have told Fergus Ewing about it.

The Convener: Thanks for that.

Alex Hill: The report seems to lack an awareness of the interdependency that has been mentioned. It is a matter of joining all the dots. If we increase the amount of local food, we improve our agricultural economy and then we get behaviour change. If we improve the broadband system, particularly in rural areas, people can work more from home, which reduces transport requirements. We need to build in that interdependency. The recognition of that is crucial, but I am not entirely convinced that we have managed that.

Similarly, with the work on housing, there seems to be a gap between the tremendous work on pre-1919 buildings by Historic Scotland, which is fantastic, and the very modern work on design standards. The gap is what, when I were a lad, we used to call overspill housing in places such as Glasgow and Edinburgh. That is where the gap lies and that is where fuel poverty is. Again, that links back to the wellbeing index.

Graeme Dey: To what extent do the business interests that are represented feel encouraged and empowered by the Scottish Government and its agencies to behave in a way that makes an

appropriate contribution to reducing emissions? To what extent should you need to be pushed? What moral responsibility do your organisations and similar organisations feel to do your bit? Can you provide examples of the actions that you are already taking or plan to take, accepting that Susan Rice has already spoken about electric cars?

Lady Rice: I will move on from electric cars. I speak from the perspective of banking and finance and to an extent energy, and the short answer to your question is that there is a moral obligation on companies and particularly large companies, which are sometimes better equipped to initiate programmes, have conversations with Government and get things going.

As a bank, we draw our custom, customers and staff from all over Scotland, so we will have a better proposition as a bank if we serve the needs in all ways of the whole of Scotland. The need that we are considering is hugely important—there is no doubt in my mind about that, and I know that colleagues would echo that view.

How does one do that? I often make a distinction between larger and smaller businesses. It is an important distinction. A large company, such as SSE or Lloyds, has staff that can look at these matters, engage with Government officials, talk about legislation and advise. Small businesses do not have that luxury.

You asked for an example. Lloyds has said that, as the biggest banker to the small business community, we have an obligation to our customers to help them in this sphere. A specific example is planning for small-scale renewables. It takes a lot of time, when applying for a loan from a bank, for the whole process of consents and so forth that has to happen. There is a lot of wind measurement, even for a tiny placement on a farm—we see a lot of successful examples of that in Scotland.

We have worked hard over the past several years. We have 600 relationship and environmental managers, who have been trained and accredited by a University of Cambridge course to go out and speak to small businesses and help them to understand what their options are, what they can do in their particular business and particular location with their particular resources, and what the costs and benefits are to them. That is not selling anything; it is truly guiding small businesses and giving them the information that they are unable to get for themselves. It is a trusted adviser focus.

We looked at the smallest end of small businesses—small and medium-sized enterprises with turnover of up to about £15 million—and decided that the product that we might provide to a large borrower is unsuitable for the small-scale borrower. We have designed a product specifically for the small-scale borrower. That has been available since last year, and the take-up has been very good.

We are now looking at companies at the more medium end of SMEs. We are trying to ease the burden—we sometimes call it due diligence in a box—and make it easier for those companies to get through all of the steps that they have to get through before they can get people on the ground installing a turbine. We then get a product out to them that is affordable and which they can use to borrow and then to see some benefits.

Those are specific examples. SSE, which is strong in the venture space, has 40 or more ventures that are experimenting in different spaces. It is doing work in district heating. As large energy companies do, when it puts up a wind farm, it puts money into local community funds. We then work with those communities and give them advice and guidance.

There is a huge amount that can happen. A lot is happening and I have given just a few examples. I have more but I will not take up the committee's time.

Jim Hume: It would be interesting to know how much of that work is influenced by Government. Is it something that Lloyds would be doing anyway?

Lady Rice: That is a good question. The answer is a bit of both. We always have to keep the Government in mind. We have national targets that are agreed initially by Parliament, and as a responsible business we have to pay attention to them. That is one aspect.

Another aspect is the issue of how we then begin to put things into play. It is important that we are able to talk to people in Government, ask questions, share ideas and see what links up and what Government wants to achieve, because we can sometimes align things. We have found that the doors are open and that there is tremendous willingness to engage in those conversations. There is also a good deal of knowledge in Government when we have those conversations. That is very important, and it reinforces our desire to do something.

Another example in Lloyds is the cycle-to-work initiative that is part of our benefits package. Staff who are able and willing to cycle to work benefit, as an employee of the business, from doing that. We know that that leads not only to wellbeing, better health and so forth but to other goals. There are always a number of motivations, not just one.

The Convener: I call John Glen, and then we will move on to some technical issues.

John Glen: I reiterate a little what Susan Rice was saying about the private sector. In the sector in which I am involved, there is a great deal of interest in and a sense of responsibility for trying to move the climate change agenda forward. We are involved in renewable energy, unconventional gas and conventional hydrocarbons, as well as affordable housing, so we are trying to do a lot of things in this space.

In the rural economy, just about any land use is subsided by Government somehow or other. There are some exciting things that we can do, but for us to make some of the changes that we would like to make requires an atmosphere of confidence and transparency. I am not sure that some of the political imperatives that are floating around at the moment are doing much to foster an atmosphere of confidence in the rural sector. If I had a plea, it would be for choices to be made that show that the agenda is more important than some of the more political dimensions to the issue. I do not feel that the choices are being clearly made.

11:15

The Convener: We move on to the input from the Committee on Climate Change.

Angus MacDonald: Members of the panel will be aware that the draft RPP2 states that targets for 2023 to 2027 were informed by advice from the Committee on Climate Change. However, since that advice, new emissions data and projections have become available that show that the effort that will be needed to meet the annual targets from 2023 to 2027 is much greater than was set out in the CCC advice. How does the panel—in particular, Dr Ute Collier from the CCC—respond to the view that the 2023 to 2027 targets in the draft RPP2 are even more challenging than the CCC envisaged?

Dr Collier: I am happy to take that—I expected such a question.

When we gave our advice two years ago, we knew that new work was going on. The difference is all to do with agriculture and land use change. The model that the Scottish Government used for all the other sectors is exactly the same as the one that we used; in fact, it is the model that we originally commissioned from Cambridge Econometrics.

I think that we discussed with the committee previously the fact that agricultural and land use change data and projections are incredibly uncertain nationally and, in particular, at the devolved level. Extra work was done by the centre for ecology and hydrology involving the new Food and Agricultural Policy Research Institute model. That is what has made all the difference.

My colleagues have looked at that work, and we are confident that it is providing better data and better forecasts, although there are still uncertainties involved. Therefore, we feel that what the Scottish Government says is probably true and that the effort must now be greater because there is suddenly a gap of 4 million tonnes of CO_2.

The Convener: As no one has any further points to raise on that, we will move on to the changing of the 2020 target.

Alex Fergusson: This is one of the areas that Richard Dixon referred to when he said that if SPICe cannot understand what is proposed there is no chance that others will. That is certainly the case as far as I am concerned, although I am sure that someone around the table will understand the proposed change.

I am aware that the draft RPP2 states that

"the 2020 annual target now equates to a 43.66% reduction in emissions."

That represents quite a change from the 42 per cent reduction that was set out in the Climate Change (Scotland) Act 2009. Would anyone like to comment on the rationale behind that change and—more important—the implications of it?

Dr Dixon: That change has been made because the baselines have changed: the numbers that we start from, which are those for 1990—and 1995 for some of the gases—are now different. The 2009 act says that we will reduce emissions by "at least 42%" by 2020, so 43.66 per cent still fits the bill very nicely.

The Government could have changed the 2020 target and all the annual targets in between to make up for the fact that the baseline was different, because the secondary legislation locks in actual carbon numbers—for example, it specifies 57 million tonnes in a certain year. It would have been a lot of bother to take that through Parliament, but the Government could have done it. I welcome the fact that the Government did not decide to do that and is sticking with the fact that we must now reduce emissions by 43.66 per cent to meet the targets.

Let us consider the consequences of that. By 2020 we are supposed to reduce emissions by at least 3 per cent a year, according to the 2009 act, so 43.66 per cent is just over six months' extra. Basically, to meet the target, we have to take policies that we have already thought of and do most of them six months earlier or do them a little harder. It will be more difficult, but not very much.

I welcome the fact that the Government has decided not to mess with the numbers but to go with them. It will be more difficult, but the Government should not make too much of that.

Judith Robertson: To make an obvious point, I note that that reinforces what we said earlier. Having no wriggle room or latitude around meeting the current targets is not necessarily a recipe for success. That is a real concern.

Alex Fergusson: Thank you. That explained it nicely.

Richard Lyle: I am sure that Dr Dixon will enjoy this question. The Climate Change (Scotland) Act 2009 places a duty on the Scottish ministers to ensure that reductions in net Scottish emissions of greenhouse gases account for at least 80 per cent of the reduction in the net Scottish emissions account. There is a limit on carbon units that can be purchased to count towards the Scottish targets.

Ministers have said that this would never happen, but can you envisage a situation in which the Scottish Government would have to seek to buy carbon units on the international market in order for Scotland to reach its targets?

Dr Dixon: Again, there was a lively discussion about that during the passage of the bill. I am sure that Judith Robertson will talk about the moral case, but as Stop Climate Chaos Scotland we are keen that Scotland should meet its targets by doing things here both because there is a moral obligation to reduce our emissions here and because there are social and economic benefits to making many of the changes that we need to make here. We are pleased that there is a limit in the act and we hope that the ability to purchase credits will never need to be used.

In the case of the 2010 target, we cannot buy units to make up the difference because the act says that we cannot do that for the first three years. It is true that, if we miss some targets in the future, the act says that we could purchase some international credits. However, we would much prefer that we urgently try to make up any shortfall from domestic effort rather than buy credits from overseas.

Some of the credits are legitimate. They might be about making an Indian factory more energy efficient or about electrification in an African township or village, so they do social and economic good and they really do save carbon. However, with many of the credits, there is significant doubt about whether the thing that is being paid for would have happened anyway. That is a big concern.

I am sure that Judith Robertson will want to add to that.

Judith Robertson: I remember the discussion at the time about whether we should push for there to be no scope for international trading because we fundamentally need to reduce our emissions. From Oxfam's perspective, trading is delaying the inevitable and it does not fundamentally help the global situation. If we consider the weakness of the process and the reliability down the line of what happens internationally, in developing countries for example, it is clear that the evidence on the good examples is vastly outweighed by the evidence on the not-so-good examples.

What happens is that, on the ground in poor communities, the fundamental change in emissions does not take place. From Oxfam's perspective, if the work is not done in the developed nations, it is not going to happen. A major responsibility lies with us not to buy in credits from elsewhere. In Bangladesh, for example, individual emissions responsibilities are of minuscule proportions compared with what we are doing. In fact, developing countries need to increase their usage in order to have enough energy for people to live decent lives.

There are a lot of issues. We are glad to see that carbon reduction is being sustained. We hope that it will continue to be sustained and that the responsibility will not be taken up by international trading.

The Convener: I am happy with that—thank you very much. Finally, we have questions on measuring effectiveness.

Graeme Dey: How does the panel feel we could better monitor emissions reductions and the effectiveness of the draft RPP2? Is the monitoring robust enough?

Dr Collier: As at the UK level, our Welsh colleagues have put quite a lot of emphasis on having a monitoring system that does not rely just on carbon emissions. As I said earlier about the 2010 target, we need to look at underlying trends.

At the UK level, we have quite a comprehensive system of indicators in that we have picked a number of things for each sector. I think that someone said earlier that RPP1 had numbers for the installation of insulation measures: we have that to 2027 and we can measure against it. We can therefore see whether we are making progress in each sector on the crucial things, which need to be the big-ticket items, for example, in transport and the power sector.

As I said, our Welsh colleagues have something similar. We suggest that that kind of thing is necessary to help achieve better monitoring. It would help us as the independent adviser if we could review it annually, especially given the current problem of the emissions data being 18 months behind.

The Convener: We can consider matters such as the reduction in carbon emissions from the

decarbonisation of energy. Calum Davidson might want to address that.

Calum Davidson: We are getting much more sophisticated modelling now. For example, just yesterday some information came out from Scottish Renewables on work that it has been doing, which highlights the fact that 1 gigawatt hour of onshore wind generation displaces 99.82 of gas generation. Some solid information is therefore now coming out that proves that we can measure in different ways and, crucially, highlight the decarbonisation of the electricity market and the move to a much more renewables and low-carbon future in Scotland. We should therefore keep the types and focus of measurement structures open and flexible over the next few years.

Jim Hume: I want to explore Dr Collier's point about what is happening in Wales, of which I am not aware. As has been said, the targets were missed in 2010; this is now 2013 and we do not know what happened with regard to the targets in 2011 and 2012. The Stern review report, which is a bit aged now, said that acting as soon as soon as possible is always best. I am interested in the Welsh situation. Has the Welsh Assembly Government taken responsibility for providing interim reports? Is that the situation? How time-lagged are such reports?

Dr Collier: The Welsh have not produced any such information yet, but they have developed a framework. The Welsh system is slightly different in that it does not have a legislated target, but they have set themselves targets. I think that 2011 was the first target year. To underpin monitoring in the future, they have set up—I think as of 2013—a comprehensive monitoring framework that is similar to that at the UK level in that it looks at a range of underlying things, from insulation measures to average car-fleet emissions and so on.

The key point is that some of the data is relatively easily available. For example, under the energy company obligations, we have relatively up-to-date data on insulation measures, which are produced by the Office of the Gas and Electricity Markets every three months, I think. Ofgem now also gives us a breakdown of data for the devolved Administrations and for renewable heat installations.

We must be careful to pick things for which we have up-to-date data. When the committee gets our progress report for Scotland, it will see that we are already looking at some of the available data to allow us to assess what happened not in 2010 but last year. It does not work for every measure, but it is a better approach.

The Convener: I think that we will have to take up many of these things with the minister. I am sure that it would be interesting to discuss the issues for longer, but we do not have the time, as the next item on the agenda will take us a while. Interestingly, we will be asking the minister about the measurement of land use and soil emissions as part of the RPP2, which is one of the positive parts that we have not had time to talk about in this session.

I thank all the panel and the questioners for what has been a challenging and interesting session. I thank the panel for their welcome work.

We will take a short break before the agenda item on biodiversity.

11:31

Meeting suspended.

11:37

On resuming—

Biodiversity

The Convener: Agenda item 3 is to take evidence on the Scottish Government's 2020 challenge for Scotland's biodiversity from the Minister for Environment and Climate Change, Paul Wheelhouse. I welcome the minister and his officials, whom he can introduce. I believe that he has a short introductory statement for us.

The Minister for Environment and Climate Change (Paul Wheelhouse): I thank you for inviting me here today, convener. It is particularly appropriate to have this discussion during the year of natural Scotland. Of course, this is also Scottish environment week, the theme of which is Scotland's environment revealed.

One of the key aims of the 2020 challenge for Scotland's biodiversity was to reveal the benefits of biodiversity to policy makers and decision takers. Biodiversity is beautiful and inspiring in its own right, but it is also fundamental to the Scottish Government's vision of a successful country with opportunities for all to flourish through increasing sustainable economic growth. A healthy environment underpins a healthy society, which is a key message in the refreshed strategy, particularly for sectors such as food and drink.

The strategy recognises that the 2020 challenge for Scotland's biodiversity is a big one. There has been significant progress since the original strategy was published in 2004, but we must do more if we are to make the step change needed to meet the 2020 targets. The strategy document sets out three clear aims: first, to protect and restore biodiversity on land and in our seas, and to support healthier ecosystems; secondly, to connect people with the natural world for their health and wellbeing and to involve them more in decisions about their environment; and, thirdly, to maximise the benefits for Scotland of a diverse natural environment and the services that it provides, thus contributing to sustainable economic growth.

There was much useful discussion during the debate and the previous committee evidence session, some of it on specific issues concerning ash dieback, Barra and squirrel pox vaccination, and some of it more strategic, on subjects such as mainstreaming and delivery.

The committee's remit refers to the analysis of responses to the consultation. Those responses highlighted some crucial strategic issues, and I recognise that only by getting our framework and structures right now can we have the confidence to deal with the specific issues that we know of today and those that will emerge in future.

Finally, I will introduce my colleagues. They are Keith Connal, Charles Stewart Roper and Gareth Heavisides.

The Convener: In analysing what the Government is doing in this area, can you think of particular reasons why we missed the 2010 targets, as well as good examples illustrating why we did not miss them by more?

Paul Wheelhouse: We have been talking about very stretching targets when it comes to RPP2. In some respects, because it is difficult to define the biodiversity targets and because they are measured in absolute terms—referring to no loss of species and no habitat damage, for instance—they are difficult to monitor. In that respect, all countries in Europe are missing the targets. It is not that Scotland is a stand-out case and the only country that is falling behind. Every country is struggling to achieve the targets.

You have alluded to some of the reasons for that. Clearly, climate change is having a significant impact on the habitats and ecosystems on which a number of key species in Scotland depend. More specifically, in relation to the health of the food supplies for some bird species, the kittiwake is an example of a bird that is suffering through climate change impacts. There are also development pressures on land across Scotland, and that is something that we, as a Government and as a society, are trying to take more account of by seeking more sustainable forms of development.

Turning to invasive non-native species, there are threats to our native species from outside Scotland, and new diseases and pests are affecting our plant life. The most obvious cases are ash dieback, dothistroma and Phytophthora ramorum. Those are key challenges for the forestry sector and for Scotland.

We have had some successes, however. We are investing in peatland restoration, species reintroductions and the protection of key iconic species such as the red squirrel.

The Convener: We have plenty of questions to cover the detail, and we want to explore the subject, including the Government's lead, as widely as possible. Jayne Baxter will start, on the biodiversity duties of public bodies.

Jayne Baxter: I had not been aware of this—I am learning every day in this job—but, under the Nature Conservation (Scotland) Act 2004, all public bodies have a duty to further the conservation of biodiversity. At a previous meeting, we heard evidence from David Jamieson of the City of Edinburgh Council and Maggie Keegan of the Scottish Wildlife Trust. They

emphasised that public bodies have a huge role to play, particularly local authorities, which are planning authorities and land managers and have responsibility for education and community engagement. They have huge scope to do things. How do you, as minister, incentivise local government to take on those roles—whether using carrots or sticks, or by doing other things? How can you reinforce the messages and get biodiversity back up the agenda in local government?

Paul Wheelhouse: Encouragingly, the early discussions that I have had with the new environment convener in the Convention of Scottish Local Authorities indicate that there is someone there with whom I can work very closely in this area. COSLA clearly recognises the importance of biodiversity, and Councillor Hagan is looking very constructively at how local government can take forward agendas in RPP2, in climate change and in biodiversity. We have a good working relationship with COSLA, and I am confident that we will develop that.

You are right to indicate that biodiversity is an extremely important issue across the whole public sector. One of the reasons why the biodiversity strategy is being developed in a relatively high-level way—I know that there has been criticism that it does not drill down into a lot of detail, with specific actions—is so that it can apply as broadly as possible to a range of organisations across the public sector, and indeed to the business community.

11:45

We have taken a view on ecosystems and ecosystem services—I know that some individuals are less comfortable with this because they look at biodiversity purely for its intrinsic value—so as to couch the debate in terms that people can recognise and respond to. By talking in terms of understanding the value of nature, we hope that public sector bodies and businesses will see the advantages for them. For example, local health providers and local authorities should be able to see that the health and wellbeing of their communities will be enhanced by enhancing biodiversity and providing sufficient recreational opportunities for people to improve their health. If we can make biodiversity relevant to those organisations, that will incentivise them because they will be able to see the advantages to them. Therefore, rather than needing to go in with a stick, we will be providing a carrot, because people will be able to see the impact on their own outcome agreements, targets and internal priorities.

I hope that that helps to explain where the influence can be. I am very confident that we will have a constructive relationship with COSLA and, indeed, with bodies across the public sector in general.

Jayne Baxter: I look forward to seeing that.

Alex Fergusson: Let me take that point in a slightly different direction, if I may. Much of the written and oral evidence—indeed, this point was also made more than once in the parliamentary debate—argued that it would help if all Government departments were felt to have bought into the biodiversity strategy. Can the minister give us his reaction to that? Will steps be taken to try to bring that about?

Paul Wheelhouse: Absolutely. I fully recognise that the environmental non-governmental organisations are looking for me—and, more generally, the Government—to champion biodiversity. In my bilaterals with fellow ministers, I see it as part of my responsibility to highlight examples of where investment in nature and biodiversity can have benefits to them.

An interesting point is that it was readily accepted that, as the Minister for Environment and Climate Change, I should be involved with the health inequalities working group that Michael Matheson chairs. That is because the importance of the environment is recognised by people such as the chief medical officer, Harry Burns. As I mentioned to Jayne Baxter, a community's health and wellbeing can be directly linked to its access to, for example, forestry resources, the natural environment and investment in tree planting in and around towns. Such biodiversity can bring benefits not just to urban Scotland but to society more generally.

There are plenty of reasons to be positive about the importance of biodiversity being recognised. All ministers are equally bound by the Government's objectives in the biodiversity strategy, as I constantly remind my colleagues.

Claudia Beamish: Good morning, minister.

Regarding the objectives of the strategy, some non-governmental organisations have highlighted the potential conflict between the objective of sustainable economic growth, which the Scottish Government has made its primary purpose, and the objective of halting biodiversity loss. Although we might make strides in increasing resource efficiency and so maximise the benefits from the use of a given quantity of natural resources, some would argue—I hope that I am reflecting the argument correctly—that we cannot continue to grow into the future without increasing consumption of natural resources, one consequence of which is a continued loss of biodiversity.

Does the Government intend that the strategy that will come out of the current process will have a wider purpose than the 2004 strategy? Will the new strategy replace the 2004 strategy? Why did the Government choose the approach that has been adopted? As we all know as MSPs, there are often conflicts between objectives of public policy, such as between increasing the number of renewable energy developments and preserving the biodiversity of uplands. How can those demands be met simultaneously?

That is rather a lot of questions, but the questions are interrelated.

Paul Wheelhouse: Indeed. Taking the last question first, I think that there is a recognition that there can be conflicts between, for example, farming interests and forestry developers. Indeed, we may end up with similar challenges and tensions between the Government's expressed desire to restore peatlands and our internal target of achieving 10,000 hectares of tree planting per annum.

We are working with partners such as private land owners and land managers and, indeed, we have the ability through the national forest estate to do things directly. I am confident that we can achieve the correct balance and work with stakeholders to identify sites for forestry, for example, that do not present challenges that could prevent new entrants to farming and the maintenance of our livestock sector, which is obviously very important to Scotland. Although those challenges exist—I would be foolish not to recognise that—I think that they are all manageable.

Equally, there is a perceived tension between renewables development and forestry, where there are renewables projects on the national forest estate, but by developing appropriate procedures and planning to ensure compensatory planting elsewhere, we can overcome that. I recognise that there are challenges, but we are a mature country and mature Parliament and we can work our way through them.

On the balance between sustainable economic growth and biodiversity, I accept that some concern was expressed in consultation responses about terminology—the use of "sustainable economic growth" instead of "sustainable development"—and what that meant about the Government's intent. As I said earlier to Jayne Baxter, although I am sure that all of us around the table recognise that biodiversity has intrinsic value, we have to couch the approach in the strategy in terms that all parts of the economy, whether altruistic or not, can buy into. We need to present arguments in a way that demonstrates to individuals, businesses and communities that investment in biodiversity has economic benefits, too, pretty much in the same way as, 20 years ago, we talked about the benefits of protecting habitats such as the Amazon rainforest and species in Africa for tourism development. We are getting a bit more nuanced, but we are trying to develop an ecosystem approach so that individuals and communities understand that biodiversity is not just about its intrinsic value; it generates jobs and supports local communities, as well.

Claudia Beamish: Will the strategy replace the 2004 strategy?

Paul Wheelhouse: We are trying to build on what was there and improve and update our understanding, as our knowledge of specific habitats and species issues is developing all the time. We are trying not to be too constraining with the document or have narrowly defined targets. It has been suggested that we should take that approach, but we are resisting taking that view so that the document can remain relevant.

For example, if we were very specific about pest threats that might affect our forest estate and had developed the document last May rather than this May, ash dieback might not have been specified. Ash dieback has become a major issue for Scotland, as we all know. Because the document is couched in terms that will let it continue to be relevant, I hope that over time it will maintain its currency.

We are building on our knowledge that was developed for the 2004 document, rather than scrapping every element of our understanding. The document is a refreshed document and I hope that it will be relevant for years to come.

The Convener: I will follow up on the point about conflicts. Environmental impact assessments for developments such as wind farms look at the impact on flight patterns of birds and all those sorts of things. From the evidence that we have from NGOs and others, I would have thought that biodiversity is not hugely threatened by such developments because of the planning conditions that are applied to particular projects. Do you get the sense in the Government that biodiversity is one of the things that are less affected and that, indeed, landscape issues—what people see—are a far greater problem?

Paul Wheelhouse: That is a fair point. Organisations whose core focus is biodiversity support the renewables sector. RSPB Scotland is a good example; it does not make a blanket rejection of every wind farm proposal—far from it. It is supportive of our society's attempts to decarbonise electricity generation, because it recognises the importance of such an approach in preventing damage from climate change. Equally, it—and SNH as a statutory consultee and adviser

to Government—has an input into proposals that might impact on particular sites to ensure that they are sensitively positioned and that we avoid difficulties with raptors and other bird populations. In general, however, you are right to say that renewables do not have nearly as big an impact on biodiversity as they might have in other areas.

Jim Hume: The money for the Scotland rural development programme, which in the past has been the major funder of the many biodiversity schemes that are in place, comes from Europe. We have been waiting to hear what that budget will be; at the moment, the European Council has agreed to reduce funding slightly by 6 per cent from £89.9 billion to £84.9 billion, but I believe that the European Parliament is still unhappy with the budget and that there are still discussions to be had. I know that Ireland wants to get the budget sealed before the end of its presidency in June, but all the intelligence suggests that SRDP funding will not be in place for 1 January 2014 and that, in fact, it will not be in place until January 2015 at the earliest. Bearing in mind that we also have to meet the 2020 targets, I wonder whether the minister thinks that it will be possible to get a programme in place, when that might happen and when schemes might be open for applications.

Paul Wheelhouse: Jim Hume is correct in his assessment of the situation. We are running the risk of having a transitional period in which there will be some uncertainty about the plans that we can put in place for a successor scheme to the SRDP. The Government is trying to develop contingency plans so that, over the period, we can cover the important agri-environment projects that are funded by the SRDP and ensure that if there is a delay in achieving a smooth transition to the new scheme—which seems likely at the moment—we have adequate plans in place. Obviously we might lose co-financing for forestry projects, but we are trying our absolute best to ensure that we minimise any drop in overall funding by looking at how we can profile our own spend to cover that period as best we can and ensure that we do not have the same drop-off in activity that we had at the previous transition. That will be very important.

With your consent, convener, I want to put on record a particular concern. The Cabinet Secretary for Rural Affairs and the Environment has made known his concerns about the emerging situation with the budget for successor pillar 2 schemes. Our reliance on voluntary modulation from pillar 1 to pillar 2 to maintain the current level of activity is a result of the influence of historic levels of activity on the previous SRDP budget and, looking forward, I think it likely that there will be a change in the way funding is allocated. It is possible that Scotland's situation might improve slightly under the change methodology, but our use of voluntary modulation might be constrained by the overall common agricultural policy budget and its implications for Scotland.

We were disappointed that the UK was not one of the 16 countries that pushed very hard in the negotiations for additional funding as part of the deal that has been agreed by the European Council, because we might well miss out on hundreds of millions of pounds of additional agri-environment funding that might have come to Scotland had the UK Government taken a similar approach. Of course it is not too late for the UK Government to reflect on that and to ensure that Scotland receives an adequate share of any funding that might be allocated to the UK. Nevertheless, I am concerned that we face a very challenging situation with regard to funding agri-environment work.

Jim Hume: I will not take the chance to remind members how members of Parliament voted on the European budget.

It is worth while noting that you have said that you are working on plans. When will your plans for the interim period that we are more than likely to face be available to the public?

12:00

Paul Wheelhouse: We are looking at consulting in late summer on the SRDP and on what a scheme might look like. I am keen for that consultation to have as much input as possible from people who rely on agri-environment funding and who have at their heart biodiversity interests, so that we understand where they see the pressures. A formal consultation will take place, through which I hope that the committee and people outside Parliament can have a key role in influencing the SRDP's design, so that we make the maximum possible use of funding to support our biodiversity objectives.

The Convener: It is over to another member of the coalition—Alex Fergusson.

Alex Fergusson: I assure you that I will not be asking any coalition questions here, convener. The minister mentioned forestry planting. Such planting by the private sector is important to meeting the overall target, which has been changed to 100,000 hectares over the next 10 years, although that is still an average of 10,000 hectares a year.

The private sector is dependent on agri-environment funding. Whatever the final amount might be, the level of that funding in 2014 is uncertain. Forestry schemes are not just dreamed up today and implemented tomorrow; some medium to long-term planning is involved. Is the minister in any position to say what impact the uncertainty about the funding level in 2014 is

having on the likelihood of new forest plantations in 2014? He might not be in such a position, but I think that there is bound to be an impact.

Paul Wheelhouse: I reassure the committee that we are aware of a good pipeline of projects that we can fund. The main impact is more likely to be on investor confidence, because of the nature of forestry planting. I am sure that, given his constituency interest, Mr Fergusson is well aware that those who plant forests must take very long-term decisions. That applies particularly in the commercial timber sector but, more generally, people look at time horizons of 30 or 40 years, rather than five or 10 years.

Having met Confor, the UK Forest Products Association and others—including conservation bodies such as the Woodland Trust and the Scottish Wildlife Trust that have an interest in forestry funding—we are aware of concerns about the impact of the shortfall in funding, but it is recognised that the issue is short term. The more fundamental point is to give reassurance of continued support from the Government for the sectors and recognise the balance of tree planting that is needed to support the commercial timber sector.

We have had such discussions to give confidence about the commitment to the target of 10,000 hectares per annum or at least the 10-year target. I have reaffirmed our commitment to that. RPP2 is out for consultation, but the Government has given a clear commitment to our forestry targets, which I have reiterated to the sector. It has welcomed the clear statement of the Government's intent and the Government's aim to work with industry on plant health issues, to ensure that the trees that we plant survive and that there is a healthy forest supply, for biodiversity and commercial timber interests.

The Convener: I will broaden out the discussion to the SRDP again. In our RPP2 discussions, I asked the Forestry Commission whether nurseries have confidence and are planting seedlings, which are essential before planting out can take place. I did not get the sense that we knew that such planting would happen. It is important to reassure the private sector, which has two thirds of the forests, that seedlings will be available. The problem is that, for nursery people to plant seedlings, they must perceive a market to exist.

Paul Wheelhouse: Absolutely, convener, and that has been raised with me in the context of discussions with Confor in particular. I am well aware that the short-term funding hit that there may well be in 2014 is probably of key importance to the nursery sector. That sector has other challenges that are posed by disease and pest issues and around knowing what to plant. We are trying to be as clear as we can be about what Government and Forestry Commission Scotland guidance there will be regarding which replacement tree species we anticipate being used to replace ash—or indeed to help to protect our investments from attacks by Dothistroma, phytophthora and other diseases.

There are a lot of uncertainties but, on the financial side, we are trying to ensure that we have as much work done as possible so that we have a plan B in the event that there is a gap in co-financing. I assure the committee that we are working hard on that to ensure that there is a minimal drop in the overall funding for forestry. We hope that that will give confidence to nurseries that there will be a continued stream of work in that period. There is also the tree health working group, which is looking at specific issues around the other threats that nurseries face.

Graeme Dey: Minister, are you concerned at all about the availability of SRDP funding for biodiversity, given the competing and increasing demands from so many other quarters for the financing of projects from that particular pot?

Paul Wheelhouse: Absolutely. I was saying to Mr Hume earlier that a substantial amount of funding that is currently dedicated to agri-environment funding comes from the voluntary modulation of pillar 1 funding. We know that farming is also under increased pressure, so we have some concerns about the greening of the common agricultural policy having been watered down and the impact that that might have—both on funding for agri-environment work and on the overall level of funding that is available to us.

You are quite right, Mr Dey, to highlight the competing pressures that there are on Government in general. We do not have an abundance of riches, so we cannot find funds from elsewhere. There are real concerns about funding, but all that I can do is to assure the committee that I will be fulfilling my role, as anticipated by outside bodies, by banging the drum for biodiversity and by emphasising the ecosystem services approach and its value to society. I will be encouraging people to see the genuine economic value of investing in biodiversity—if there is a cost benefit analysis, the economic benefits are well understood.

Jim Hume: In the past few years, there has been quite a reduction in the funding that the Scottish Government has been giving to the agri-environment—perhaps that was before your time as minister. Will you be fighting within the Cabinet and so on to ensure that that amount is not eroded any further—or perhaps even that it is increased?

Paul Wheelhouse: We have had some correspondence in the local papers with Mr Lamont on the SRDP. The overall level of SRDP

funding per annum has gone down, but we are reaching the end of the current funding scheme. The level of demand is pretty consistent and about 85 per cent of applicants are having their applications approved in the region that Mr Hume and I represent. That is consistent with previous years; in fact, a slightly higher proportion of applications are being approved this year than last year.

There has been a tailing off of funding as we come towards the end of the period, but that also reflects the fact that the Government decided to bring forward funding to assist the agricultural sector and the rural economy at a time when the downturn occurred in the UK economy. There is a mixture of reasons for the downturn, but I hope that there will not be a similar one in the next SRDP period.

The Convener: Heaven forfend—a nearly good news story.

Nigel Don: The 2020 challenge document suggested that biodiversity policies might perhaps be implemented at river catchment level, which would make for an interesting map of Scotland—one that I have never seen—because of course every square metre is in some river catchment area.

Is it intended to work on that and to have plans for each river catchment area? If there are plans, who will do the work, who will pay for it and how soon are we likely to see the plans?

Paul Wheelhouse: Those are excellent questions—I may have to rely on my colleagues to deal with some aspects of them.

You are right—we are trying to look at the integration of such things as the biodiversity strategy, the land use strategy and, indeed, river catchment management plans. Those documents are important. I am sure that Mr Hume and Claudia Beamish will be familiar with the Tweed catchment area, where a lot of work has been done at a local level on invasive non-native species, and excellent work is being done on the water framework directive and, generally speaking, on issues to do with wild fisheries. A comprehensive view is being taken of the health of that river catchment, and there is good reason to be confident that there are significant improvements in the quality of the river catchment plan.

I do not think that I have seen a map with all the river catchments on it, but I would be interested in seeing that. That is a good point, which I will perhaps address to the officials after the meeting. I know about the good work that is happening. Taking a comprehensive view of the health of a river catchment is constructive and has a certain logic.

Keith Connal might be able to pick up that issue.

Keith Connal (Scottish Government): I remind the committee of an announcement that the minister made a couple of weeks ago about two land use strategy regional framework pilots in the Borders and Aberdeenshire. They will be supported with Government money and will start in April. I am happy to provide further details on them to the committee.

The Convener: Fine. Thank you for that.

How will the value of ecosystem services be accounted for in planning decisions?

Paul Wheelhouse: That is also a good question. I am getting a run of good questions.

As our understanding develops of how aspects of Scotland's wildlife and environment contribute to sectors such as tourism and food and drink production—those are classic examples—we can see clear links. There are direct links between the environment and what we produce as a country and I am increasingly aware that the aquaculture sector relies on Scotland's pristine environment, as it is perceived internationally, as a selling point for charging a premium price for quality products. The cabinet secretary is also aware of that with regard to the whisky and other sectors.

Obviously, we have gone into issues that relate to the health of the meat supply in recent weeks, but Scotland has invested to build a reputation on farm-assured meat products. The recognition that the environment has a critical role in attracting investment to Scotland and custom through our export industries is a similar issue.

Our developing knowledge will, for example, strengthen the arguments that local authorities present when they question the legitimacy of planning applications. It will also help planning applicants who are doing something to enhance biodiversity to express how that will enhance the economy. That area of our knowledge is emerging.

It is clear that the natural capital asset index is leading the way in Scotland in developing a way of measuring the health of our natural environment. There is a lot more that we could do, but we are some way further down the line than other countries in that respect.

The Convener: Will you engage the planning minister in this work at an early stage so that it becomes a key feature of planning policy?

Paul Wheelhouse: Obviously, there is an on-going consultation on national planning framework 3. Ministers are getting representations on specific aspects of planning policy that people want to be retained because they are seen as an asset or that people want to be enhanced if they think that

there are weaknesses to be addressed. For example, the Woodland Trust is keen to see the protection of ancient woodlands. That is in the NPF2 document and they want to ensure that it is retained in NPF3.

Earlier, we discussed with Jayne Baxter the biodiversity duty that planning authorities would be expected to uphold. I will look to see that they take that on board in their activities and in how they interact with economic development interests and planning issues. I hope to see that reflected in NPF3 as well.

The Convener: It would be quite a cultural step change if developers respected decisions when, for example, their planning applications were turned down because of the development's impact on ecosystem services. How can you make the process of regulation and the promotion of ecosystem services robust?

12:15

Paul Wheelhouse: Charles Stewart Roper will say something on that subject in a moment.

During the biodiversity debate, Nigel Don and others raised the issue of how realistic it is to expect that, when a development is happening in one area, you can immediately replicate elsewhere an ecosystem that has developed over hundreds or thousands of years, if not longer. We need to be sensible about that when we consider the impact of a development on a location. If it is a case of cutting down some conifers in an environment that is not particularly rich in biodiversity, that is not a great issue, but, clearly, a different set of calculations and considerations come into play if the development involves an ancient woodland.

Charles Stewart Roper (Scottish Government): In the planning system, strategic environmental assessments and environmental impact assessments already take account of many aspects of ecosystem services such as water quality. As knowledge of the value and function of particular ecosystem services broadens, I am sure that more will be brought into those formal systems.

The other point that I would make is that the issue is not always about protection. In many cases, it will be about enhancing the value of the natural capital through our planning decisions.

The Convener: That is helpful.

Graeme Dey: I will ask three questions in one. What priority will be given by the Government to trying to engage people with nature, not least of all for its health benefits? How will you seek to increase the understanding of biodiversity through education? Do you agree that using the word biodiversity—it is suggested that up to 75 per cent of the public do not understand its meaning—is perhaps hindering the process of raising awareness and understanding and that deploying the phrase, "the balance of nature", which our colleague Alex Fergusson used in the recent debate, might be more helpful?

Paul Wheelhouse: You raise a number of important points.

I know that Deborah Long gave evidence to you on engagement. We generally believe that the public are reasonably well engaged, socially and culturally, but there is perhaps more that we could do on education about biodiversity. We have some good initiatives, such as eco-schools and forest schools, which are positive things. Good work is done with primary schools, and there is generally good engagement at that level. The first event that I attended as minister was a bioblitz in Vogrie country park in Midlothian, which involved children from Tynewater primary school monitoring the health of ponds in the area. However, I know from my discussions with the Scottish Wildlife Trust and others that there is a tail-off in interest among secondary school pupils. I have had bilateral discussions with Michael Russell, the Cabinet Secretary for Education and Lifelong Learning, about what we can do through the curriculum for excellence to enhance the environmental aspects of the curriculum throughout all subjects. There are clearly areas in which environmental examples could be used to demonstrate mathematical techniques and so forth. We could do more to engage pupils in that way.

You are right to raise concerns about people's understanding of the term biodiversity. It is fair enough to talk about a biodiversity strategy, because that is being pitched to local authorities, the national health service, government departments and other stakeholders. Ecosystem services is an ugly term, if ever there was one, but it is an important one. We use that kind of jargon when we are talking to ourselves, but we need to relay these messages to people in terms that they can understand. That is why the use of terms such as "nature", "wildlife" and "environment" is good, as people can understand them, while they might struggle to understand what we mean by "biodiversity".

I understand that Scottish biodiversity week has been rebranded as the festival of nature this year. That is a good example of a change in approach. Similarly, the new app that is designed to promote key species in Scotland, which the cabinet secretary recently launched, is called Scotland's Nature, not "Scotland's Species" or "Scotland's Biodiversity". It is pitched at a level that makes it suitable for use by children in schools and by

adults. Finding terminology that people understand and buy into is crucial.

Claudia Beamish: I have a question about the establishment of an ecological network. That fits quite well with the previous questions because it is a spatial planning issue. The 2020 challenge document states:

"Protected places will lie at the heart of a national ecological network, delivering multiple benefits to the people of Scotland."

You will, of course, be aware of the central Scotland green network, which has been in development for a number of years. How does the Scottish Government intend to create a national ecological network? One purpose of the network will be to deliver connectivity between protected areas, and it is important as a species support response in relation to climate change. Will the biodiversity strategy help with that? Will the network be part of NPF3?

Paul Wheelhouse: On the latter point, the SWT and RSPB Scotland have made a pitch to me and Mr Mackay on the inclusion of a national ecological network in the NPF3.

The biodiversity strategy sets out the benefits of a well-connected and resilient environment. That is an important principle and it is fundamental to the ecosystems approach that we are taking and to improving ecosystem health.

To date, we have seen 240 national development proposals for NPF3, including the establishment of a national ecological network. The main issues report is due to be published for public consultation in March. It will identify those proposed national developments that are considered to support preferred strategy and options around that strategy. It is anticipated that the proposed NPF3 will be laid before the Parliament for consideration in the autumn. Officials have held a briefing session for members of the Scottish Parliament on the preparation of NPF3.

I apologise if I seem to be obstructive in answering that part of the question, but I would not want to prejudge another minister's consultation. We will make representations on connections to the biodiversity strategy and the land use strategy and the importance of the initiatives that would perhaps be part of a national ecological network, such as the central Scotland green network. That network has been a real success. I am looking forward to learning more about what it is doing on the ground, but I gather that is a good example of successful investment in a national project.

However, I would not want to prejudge what my ministerial colleagues with responsibility for local government are considering.

Claudia Beamish: Looking forward, how will an ecological network in Scotland join up with networks in other UK countries and neighbouring countries? That is obviously a difficult question at this stage, but are any discussions taking place about how that might happen on a broader level?

Paul Wheelhouse: The British-Irish Council environment ministers' meetings provide a good opportunity to discuss issues. In fact, the first one that I attended was all about biodiversity. Also, the Joint Nature Conservation Committee plays a particularly important role in looking at the health of the UK's biodiversity and, indeed, interaction with Ireland as well.

We have to be careful about connectivity. There are cases in which it is a good thing, but it can be a negative as well. For example, in the south of Scotland, we are looking at protecting our diminishing red squirrel population. I believe that I will be meeting the member to discuss that. If we connect up too well to networks south of the border, we could spread grey squirrels into areas that have remaining red squirrel populations. We have to take a sensitive approach that takes account of the various pressures that exist.

As a general approach, however, I am certainly sympathetic to looking at ways in which we can improve the ability of wildlife to expand its range and repopulate areas that have lost biodiversity and habitats.

The Convener: I will talk a bit about the restoration of degraded ecosystems, but I am also conscious that, next week, we will deal with RPP2 and I want to try to avoid discussing deep peat or raised bogs just now, because we may repeat ourselves.

There you are—I got it in: the P word.

We are talking about including in the ecosystems resilience strategies restoration of at least 15 per cent of degraded ecosystems. Leaving aside the P word, are there any other degraded systems that you expect us to be able to deal with?

Paul Wheelhouse: Indeed, convener. I will do my best to avoid using the P word.

We are looking to restore coastal dune and heathland areas, particularly where 20th century forestry planting is threatened by rising sea levels and inhibits natural coastal protection.

When I was in the Western Isles last week, I heard about issues to do with protecting the machair. A good example is a golf course in South Uist allowing the machair to recolonise part of the beach to strengthen the natural sea defences.

We are also looking at trying to eradicate most invasive non-native vascular plants from all

protected areas. That is a way of enhancing and improving the quality of our ecosystems where they are threatened by invasive plant species. The Tweed is an example of that approach. There has been a lot of good work there to eliminate knotweed and various other invasive plants.

Supporting such initiatives to enhance the natural environment is an important step that we can take.

I think that I avoided the P word.

The Convener: Yes, we will come back to that.

Angus MacDonald: Minister, you just touched on non-native invasive species. As we know, the EU has been actively engaged in addressing invasive species. I am sure that we have all had to deal with issues in our constituencies regarding Japanese knotweed and Himalayan balsam to name just two.

How is the Government engaging with the EU institutions on the forthcoming legislative proposals and how will they help to deal with invasive species?

Paul Wheelhouse: I will ask Charles Stewart Roper to come in on the EU issue. I will not place him in a difficult position, but I will ask my colleagues about engagement.

We are grateful for the opportunity for Scotland to attend the environment council—not in our own right, obviously, but to support the UK delegation. The council is considering improving the water environment. To pick up on Mr Don's point about river catchment health, the presence of invasive plants in our river catchments is a key issue.

We have a code of practice on non-native species. SNH and the Scottish Environment Protection Agency are taking lead roles in delivering on that. The Forestry Commission obviously has a role on that in forestry, as does Marine Scotland in the marine environment. All agencies are working together on the code and they have interactions with their European counterparts and the Council of the European Union.

It might be more appropriate for Keith Connal to comment.

Keith Connal: We are engaging with European officials. They have been keen to hear about the approach that Scotland has adopted. We are not only contributing to their ideas from scratch, but they are looking to what we have done.

Angus MacDonald: Minister, do you know offhand whether any of the public bodies has recently used the powers that they were given under the Wildlife and Natural Environment (Scotland) Act 2011 to deal with anyone who has introduced non-native species into the country?

Paul Wheelhouse: I am not aware of any prosecutions of people for bringing in non-native species. Early work has been done on protecting freshwater mussels and there have been some recent prosecutions on that. We are working with sectors that have interests in ponds and fish species on restrictions on plants that can be brought in, and those working in the horticulture industry are under obligation to avoid bringing in invasive non-native species. At the UK level, decisive action has been taken to protect the forestry sector from the threat of Chalara fraxinea, which is not an invasive non-native species but a tree pest. We are working with our UK counterparts to minimise the risk of such species and tree and other plant pests coming in and posing a threat to Scotland.

12:30

Alex Fergusson: A number of tree diseases in particular have come in during the past decade, despite increasing awareness of the dangers of bringing in different species. I am mindful that I have mentioned the subject of the problem that my constituency has with North American signal crayfish more often than is good for my health, and it is occurring increasingly throughout Scotland. Given all the problems that have come in in the past, and the fact that their incidence does not appear to be lessening, to what extent does the minister feel that we are fighting a losing battle? I am not suggesting that we should give up that battle, but I wonder about the extent to which the actions that he proposes to take can put an end to our problems.

Paul Wheelhouse: Our priority follows European good practice. The first step is to prevent new introductions where we can. Accidental releases can occur of captive species into the wild. We then consider eradication or long-term management, depending on the situation that we are faced with.

When it comes to species such as the North American signal crayfish, we do risk assessments to help to inform the consideration of a ban on the sale of crayfish, and I know that that is a subject of interest to Mr Fergusson. We also look at making decisions on doing control work where any new populations are found. For example, crayfish have been eradicated from ponds in the Ballachulish area. We have to take account of what is practically possible.

The same thing applies to tree pests. We might just have to live with the fact they are here now and work with the industries that are affected by them to ensure that we minimise the potential economic damage and damage to habitats. It is important to work with the industry in each case and, in the case of crayfish, to work with the

fisheries on managing the situation at the local level when it is possible to do so.

Ideally, when the non-native species is already here, we must prevent it from spreading. With ash dieback, for example, we initially hoped that we could prevent its spread in Scotland but that is simply not possible and we recognise that. We have to manage the process and give ourselves time to develop alternative strains or a viable ash tree that is resilient to such disease.

We have to take a sophisticated, nuanced approach that depends on the particular threat that we face, and we have to assess the risk that it poses.

The Convener: We turn to the marine environment.

Claudia Beamish: Minister, you have already talked about coastal dunes. During the consultation on the 2020 strategy, some consultees highlighted the importance of the links between land and marine issues in relation to biodiversity. Do you have any specific comments on the protection—perhaps I should say the better protection—of internationally important seabird species?

Also, as on land, our marine environment faces increasing demands and sometimes conflicts. You will know that the committee has been looking at aquaculture and how fisheries and other demands can be balanced with the development and enhancement of biodiversity.

Paul Wheelhouse: That is an important point. Scotland has a tremendous opportunity to use its marine environment for the generation of renewable energy, but with that comes responsibility to ensure that that happens in a way that minimises the damage to our precious marine environment. In our discussion with the deputy director of the environment directorate-general in Brussels, we discussed the pressures that we face from the habitats directive in relation to the development of our renewables industry and aquaculture and other development pressures. The habitats directive is important to the Commission and to us, but it should be seen not as a barrier to growth or economic development, but more as a framework within which we consider the impacts of proposals and projects that come forward and mitigate their impacts as best we can.

There are occasions when a development is of overriding public interest. I am not aware of that approach having been exploited in Scotland to date to any great degree. For the most part, we are confident that developments in the marine renewables sector and development of harbours for the manufacturing and installation of equipment can be done in a way that is sympathetic to the habitats directive and the impact on seabirds, harbour seals and other key species that we seek to protect. The habitats directive is sometimes seen in the outside world as an ultimate ban on any economic aspirations that communities might have, but my interpretation is that it is more about ensuring that habitats and the environment are respected and that we work around those concerns to ensure that development is in sympathy with the environment and not to its detriment.

It is important that we protect seabirds. To give a couple of examples, we are working to protect black guillemots and sand eels, which are a key food source for many seabird species such as puffins. I am sure that it will please Claire Baker, who I think is a species champion for puffins, that in our consultation on marine protected areas, we are proposing to protect areas that are important for sand eels. It is difficult to define an area that can be defended scientifically as the key territory for migratory species. That is a challenge in the design of MPAs and in defending species scientifically. However, we are confident that, by protecting the food source for seabirds, we can assist in protecting those species.

I hope that that helps to answer your question in part—forgive me if I have missed anything.

Claudia Beamish: It goes a long way towards answering it. Thank you.

The Convener: Does Alex Fergusson want to come in?

Alex Fergusson: I am happy to, if I may. I am always happy to come in, convener.

The Convener: I just thought that you might want to comment.

Alex Fergusson: I would not mind asking a little follow-up question, because I mentioned the issue in the debate in Parliament. I asked, more or less, what the point is of protecting where birds breed if we do not protect where they feed. A lot of the evidence to us has suggested that not enough action is being taken to protect feeding areas for birds. I ask the minister to expand a little on that.

Paul Wheelhouse: One of the proposed marine protected areas that we will put to consultation is a protected area for sand eels. We recognise the importance of that species as a key food source for many of our seabird species. You are right that it is important to protect the feeding sources for seabirds as part of their habitat. We are taking a habitat approach as part of our ecosystem approach more generally to protecting biodiversity. Clearly, food is an important aspect of that. However, there are limits to what we can do. If we wanted to protect a more mobile species that was prey on which birds depended, it would be difficult to define the relevant area. Obviously, fish move

over a huge range, but we know that certain areas have concentrations of sand eels, and it is easier to define such areas, which we can protect, to achieve the objective. However, more generally, it is difficult to protect, say, cod in a particular area, otherwise we would probably be in a much happier place in understanding how to protect our key fish stocks.

The Convener: The EU has a very specific seed list but, as far as biodiversity is concerned, we have been urged to minimise genetic erosion and safeguard the genetic diversity of farmed plants and farm animals. How does the Government plan to put such safeguards in place?

Paul Wheelhouse: The Government's strongly held view is that genetic modification in agriculture and food production should be avoided in Scotland. Although in signing off a number of vaccine developments to deal with diseases I have occasionally had to allow some GM, I want to protect our food supply, which is perceived internationally as a premium quality product because it is natural and free of such issues. Scotland's diverse range of plants is sustaining our biodiversity.

Of course, the issue also links into the health of our bee populations, which are very important in an agricultural system that is not GM focused and which relies on pollination to encourage a naturally evolving agri-environment—if I may put it in those terms. As a result, we need to take an integrated approach to the health of those ecosystems and, from a perception and quality point of view, recognise the importance of keeping Scottish produce GM-free at this stage.

The Convener: Table 2 on page 70 of the document refers to a "Proposed UK ... indicator" on

"Genetic resources for food and agriculture"

and mentions two existing indicators relating to the "Effective population size" of sheep and cattle. Obviously maintaining those indicators was important to genetic variety and I had hoped that the biodiversity strategy, in particular, would have looked at the issue.

Paul Wheelhouse: The foot-and-mouth crisis devastated many historical and ancient breeds of cattle and sheep in Scotland but we need genetic diversity to ensure a resilient agricultural production system and livestock sector. Our bovine and sheep livestock faces many disease threats, and genetic diversity protects such species from being wiped out by one disease. After all, if we had a genetically homogeneous sheep population, one disease could threaten the national flock. We have to take such matters into account and are doing what we can by, for example, giving crofters access to good-quality bulls so that they can propagate good-quality and resilient stock and investing in research into livestock genetics at Easter Bush in Midlothian. We are certainly taking steps to ensure that we understand the importance of genetics in agricultural production.

In fact, I visited a Scotland's future farmer winner in Drinkstone near Hawick—Claudia Beamish might be familiar with it—who is looking at the health of the progeny and productivity of his stock and seeking to enhance its estimated breeding value. Instead of being pretty, those sheep are healthy and robust and should, in theory, contribute to lowering climate change emissions.

The Convener: We might well come back to what is a big area—it looks like it might be opening up.

You mentioned bees, minister, and I believe that Richard Lyle has a question on that matter.

Richard Lyle: Minister, you have referred to bees, and I want to ask you about the plight of the bumblebee. Representations have been made to the committee about examining the use of neo-neonicotinoids.

The European Commission is considering suspending the use of three such pesticides on any agricultural crops that attract bees. Specifically, the measure would prohibit the sale and use of clothianidin, thiamethoxam and imidacloprid on crops attractive to bees, including sunflower, rapeseed and corn. It would similarly prohibit the sale and use of seeds treated with the three pesticides, although exceptions would include crops and seeds that do not attract bees.

What is the Scottish Government's position on the European Commission's proposal to ban the use of neonicotinoids on certain crops? When will the Government receive the advice of the Advisory Committee on Pesticides? What are the implications of the ban for Scottish farmers? Perhaps most important, what are the implications for the poor humble bee?

12:45

Paul Wheelhouse: I am not sure whether Mr Lyle is a champion for bees, but he has done a very good job there. I was aware that the issue may come up, so I have a line that I hope will help.

Scottish ministers currently have legal powers to withdraw or amend an existing pesticide authorisation in Scotland. However, enforcing a ban on the use of neonicotinoids—I had to practise that word for a while—in Scotland would be problematic. Any enforcement would need to cover both the sale of neonicotinoids for professional and amateur use as well as the

import of seeds treated with neonicotinoids. Thus, even if we banned the deployment of neonicotinoids, seeds containing or contaminated with neonicotinoids could still come into the country.

We are awaiting advice from the Advisory Committee on Pesticides on the European Food Safety Authority's review of neonicotinoids. We are also waiting to hear the Commission's final proposals for restrictions on their use, which are likely to be voted on by member states at the standing committee meeting on 25 February. Obviously, our position will need to reflect what judgment is taken by member states on 25 February. Whatever happens, we need to take a balanced and proportionate approach to any restrictions so that we meet farmers' needs while safeguarding the environment.

The Government takes very seriously the issue of bee health, for the reasons that I outlined to the convener; indeed, we have a bee health strategy. We will need to look at the issue in the context of the Government's objectives for supporting our important bee populations while taking into account what European ministers decide on 25 February.

I am happy to write back to the committee once we receive that decision so that I can then give a definitive view on how we will proceed.

Graeme Dey: Does the minister agree that we will need to be able to measure as accurately as is feasible the progress of the biodiversity strategy? If so, what indicators can we anticipate being put in place to aid that process, and within what timescale? In the minister's view, how often would it be useful for updates on progress to be made available?

Paul Wheelhouse: I am aware that Hanzala Malik asked in the debate whether we could produce data at six-monthly intervals. Although I understand the desire to have regular updates, that would mean that we would face having to dedicate a lot of our resources to monitoring populations of species throughout the year.

More regular updates would also present us with very practical difficulties. For example, one hears the phrase "One swallow does not make a summer" for the very real reason that swallows are migratory birds, which come here for only part of the year. If we looked at statistics from only one part of the year and suddenly discovered that there were no swallows in Scotland, we might have a panic. We need to take a practical view on what is deliverable within our resources, which are constrained at the current time. I will look to what we can do. Taking a longer-term view about the monitoring of numbers, with annual updates where relevant, is probably the right way to go.

We also have opportunities to build up across Scotland the strength of citizen science networks, whereby people contribute to the RSPB bird surveys or to the bioblitz work that I outlined earlier. The raptor monitoring group also plays an important role in helping us to understand what is happening to our key raptor species. Given that we have a lot of good work going on out there, we need to work with those partners to ensure that we have as much good-quality, useable data as possible coming in.

I am keen to pick up on the important point about the need for us to be able to understand what the monitoring is telling us about where we are going in terms of achieving the aims of our strategy. Certainly, I am committed to continuing to work with ministerial colleagues on championing biodiversity to ensure that we get those messages out, especially where challenges arise and where we see things going in the wrong direction. We have established a delivery agreement with our partners that sets out roles and responsibilities in drawing up a set of performance indicators. Obviously, the strategy itself will be quite high level, as I said, but we can identify indicators in partnership with the different agencies on the Scottish biodiversity committee.

We are also proposing to set up a biodiversity monitoring committee, which will sit below the biodiversity committee and will inform our technical understanding of what we can do and what the monitoring is telling us over time. We can also build on measures such as the natural capital asset index, which may not be perfect yet but is a big step forward. Work is on-going to revise and improve on the methodology of the index as we go forward.

We hope that initiatives such as the citizen science networks, the biodiversity committee—on which many of those organisations are represented through Scottish Environment LINK—and the biodiversity monitoring committee, along with tools such as the natural capital asset index, will all work together to help us to understand where we are going.

The Convener: I thank the minister and his team for the evidence that they have given. We will also write to the minister. We have reached the end of this episode, but I suspect that, because the Parliament is taking the subject seriously, we will find many more ways in which to interrogate the Government's actions in future.

At our next meeting, on Wednesday 27 February, we will again take evidence from Paul Wheelhouse but on RPP2.

Meeting closed at 12:51.

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