

The Scottish Parliament Pàrlamaid na h-Alba

Official Report

RURAL AFFAIRS, CLIMATE CHANGE AND ENVIRONMENT COMMITTEE

Thursday 28 February 2013

Session 4

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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)

THE FOLLOWING ALSO PARTICIPATED:

Antje Branding (Scottish Government)
Roderick Campbell (North East Fife) (SNP) (Committee Substitute)
Stuart Greig (Scottish Government)
Andrew Henderson (Scottish Government)
Richard Lochhead (Cabinet Secretary for Rural Affairs and the Environment)

CLERK TO THE COMMITTEE

Lynn Tullis

LOCATION

Committee Room 2

^{*}Angus MacDonald (Falkirk East) (SNP)

^{*}attended

Scottish Parliament

Rural Affairs, Climate Change and Environment Committee

Thursday 28 February 2013

[The Convener opened the meeting at 09:32]

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

The Convener (Rob Gibson): Good morning, and welcome to the eighth meeting in 2013 of the Rural Affairs, Climate Change and Environment Committee. Members and the public should turn off mobile phones and BlackBerrys as leaving them in flight mode or on silent will affect the broadcasting system.

We have received apologies from Jim Hume and Richard Lyle. I welcome Rod Campbell as a substitute and ask him to declare any relevant interests.

Roderick Campbell (North East Fife) (SNP): I have no relevant interests to declare.

The Convener: Item 1 is an evidence session on the Scottish Government's draft RPP2. The committee will hear from the Cabinet Secretary for Rural Affairs and the Environment, Richard Lochhead. This is the final evidence session on RPP2, and I thank all those who have attended the committee to give evidence and those who submitted written evidence to help us to scrutinise the report.

I welcome the cabinet secretary and encourage him to introduce his officials. If he has any short remarks to make, we would be happy to hear them.

The Cabinet Secretary for Rural Affairs and the Environment (Richard Lochhead): Thank you for inviting me to talk about the draft second report on proposals and policies for meeting Scotland's climate change targets. First, I extend a belated welcome to Jayne Baxter, given that I have not attended the committee since she has been a member. It is good to catch up with you all today after a long week in Brussels; having negotiated until 5.30 am yesterday morning, I now have the opportunity to come back to the Parliament and talk about a very important issue.

I hope that the committee found yesterday's meeting with my ministerial colleague Paul Wheelhouse helpful. I hope that I can provide additional information about the sectors that the rural affairs and environment portfolio covers, and

how it is contributing to our efforts to reduce Scotland's greenhouse gas emissions. In particular I will discuss how the agricultural industry is responding to the challenge, as well as addressing the other issues for which I am responsible.

In many respects, reducing agricultural emissions offers farmers opportunities to work smarter and improve the efficiency of their businesses. A successful agricultural sector will continue to boost the core of Scotland's thriving food and drink sector, which is a priority for us as that sector has an important role to play in delivering sustainable economic growth in this country. I was pleased to attend the launch earlier this month of the environmental ambition for the Scottish food and drink industry strategy, which recognises the importance of sustainability to the sector's future success.

That ethos also underpins the Scottish Government's farming for a better climate initiative. Through the promotion of best practice in the agricultural sector, we are targeting avoidable emissions, foremost among which is the nitrogen that is lost to the atmosphere. The initiative also contributes to other environmental outcomes such as improved water quality and biodiversity, so a whole series of win-wins will result from tackling that important issue in Scotland's agricultural sector.

We estimate that uptake of the measures that the farming for a better climate initiative promotes could result in savings to the industry of approximately £240 million during the period leading up to 2027. There is potential for us to do much more in the future by increasing the contribution to our climate change efforts that could come from exploiting developments in technology in areas such as precision agriculture and farming, in which the global positioning system could guide the most effective use of fertiliser. Similarly, modern approaches to the use of nitrogen-fixing plants, such as clover, could help to reduce the amount of fertiliser that is required in the first place.

Although RPP2 focuses on reducing greenhouse gas emissions in Scotland, the farming for a better climate initiative also promotes adaptation measures that help farmers and land managers to make their businesses more resilient to changes in climate. Best practice in managing wet soils, for instance, is a case in point.

The committee spoke to the minister yesterday about our ambitions to continue to create new woodland throughout Scotland and to match manage the opportunities for locking more carbon into our soil by restoring degraded peatlands. That is all part of the Government's approach to ensuring that we use Scotland's natural assets in

a holistic and sustainable way in order to reap the benefits that they offer us while taking care to protect them for future generations.

Finally, I will say a few words on our zero waste plan, which is an important factor. The plan is about designing waste as we know it out of our economy, which will be achieved in many ways—for example, by recycling, designing and packaging products differently and ensuring that we do not discard valuable resources. All those actions can save carbon, so in that sense the zero waste plan is also a carbon plan and a climate plan.

Most of the carbon that those actions will save is produced outside Scotland: it is created by extracting raw material from the earth and by manufacturing, and is emitted from products and materials that are shipped around the globe. The zero waste plan is making a major contribution to reducing Scotland's global carbon footprint, and we estimate that the actions in the plan will directly help Scotland to reduce its global waste footprint by 27 per cent, which is the equivalent of 7 million tonnes of carbon.

RPP2 is only a small part of the carbon story, as it concerns the actions that we are taking in Scotland to reduce the carbon that is directly emitted in this country. In the area of waste, those actions relate mostly to landfill.

There is much more that I could talk about, and I look forward to today's discussion.

I will introduce my colleagues: Andrew Henderson, from the Scottish Government's directorate for energy and climate change; David Barnes, deputy director for agriculture and rural development; Antje Branding, who leads a team in the agriculture and rural development division; and Stuart Greig, from the waste team. We will do our best, working together, to answer your questions.

The Convener: Thank you, cabinet secretary. I will start with the agriculture elements. Why are there few policies in the agriculture part of the rural land use section in the draft RPP2?

Richard Lochhead: There is a lot of on-going work in Scotland on how we can reduce the agricultural sector's carbon footprint. We must bear it in mind that agriculture and land use account for approximately 19 per cent to 20 per cent of Scotland's emissions, so the sector has a major role to play. Not only do we need to change some of the practices in the sector to reduce the carbon footprint by doing things differently, but we must acknowledge that land use and agriculture can play a major role in carbon sequestration and creating carbon sinks. We need to reduce the negative impact of the carbon footprint and try to make a hugely positive impact so that Scotland can meet its climate change ambitions.

RPP2 refers to farming for a better climate, which is our major initiative to engage with agriculture. We are undertaking a whole range of activity from the land use strategy in Scotland to farming for a better climate and many other things, but we very much see farming for a better climate as the vehicle for engaging with 20,000 agricultural holdings to change what we do and reduce the sector's carbon footprint.

The Convener: How many farms have signed up to farming for a better climate?

Richard Lochhead: We will carry out a survey this year to better understand the number of farmers who have engaged with the initiative, which promotes voluntary action and tries to transfer knowledge and show farmers around Scotland the many different actions that they can take. We reckon that several thousand farmers have engaged with farming for a better climate but, of course, those are not all the farmers in Scotland. I note, however, that the initiative has been running only since 2010. Four climate change focus farms, which are the equivalent of monitor farms but have a climate change focus, are now up and running to share best practice and to act as a focal point for farmers to come together and learn what can be done on farms to reduce the carbon footprint. Again, several hundred farmers have attended events on those farms.

I think that 2013 will be a very important year for us as we take stock of where farming for a better climate has reached and what we can do better to engage all Scotland's farmers. Indeed, the review of the common agricultural policy offers another opportunity to have that debate. As I have suggested, this year will be crucial in working out the number of farmers who have engaged with farming for a better climate and what more we can do in the run-up to 2027, as well as ensuring that, long before then, all farmers have engaged with it.

The Convener: RPP2 contains examples of different activities that people around the country are involved in. The farming for a better climate programme is already delivering something but, when you say that you will take stock of it in 2013, how will that affect the modest amount of abatement that RPP2 sets out for it through to the 2027 end-point? What proposals and policies has the Scottish Government considered to ramp up this line of work and why are they not in the draft RPP2?

Richard Lochhead: A consultation is being carried out on the document. I will listen closely to the committee's comments and reflect on them as we move towards publication of the final RPP2 documents.

The point is that, with such documents, we always need to strike a balance between what

should and what should not be included. If we include everything that is happening in farming for a better climate, it will take up half the document, so we have to summarise our central agricultural policy as far as this debate is concerned.

As for proposals, farming for a better climate takes a voluntary approach. The biggest area in which agriculture can perhaps change its current practices is in reducing the use of nitrogen. The overall debate is about how we reduce CO₂ emissions, but the main emissions for which agriculture and land use are disproportionately responsible are nitrous oxide and methane.

The Convener: We will ask some questions on nitrogen later, cabinet secretary.

Richard Lochhead: Okay. As the document makes clear, one of our key proposals to take this debate forward is a 90 per cent uptake of nitrogen efficiency measures by 2018.

The Convener: Thank you. That tees things up for the committee.

Graeme Dey (Angus South) (SNP): It has been claimed that farming for a better climate is not sufficiently well monitored and that, as a result, it is difficult to assess the uptake of certain measures. Although I note your comment about the survey that will be carried out this year, is that criticism valid? Can you reassure the committee that abatement from the programme is being and will be accurately measured?

Richard Lochhead: I understand the concerns that have been expressed, but we must examine where we have come from and where we have reached. The Government launched the initiative in 2010; this is now 2013. We must acknowledge that, in past decades, there have been no such initiatives and that this new way of doing things is pushing the very important debate on climate change much further up the agricultural agenda. As a result, we are very much on a learning curve.

This is a good initiative that the current Government introduced to engage with agriculture on reducing its emissions and, at the same time, get all the win-wins from such a move. By reducing emissions, each farm in Scotland can save a fortune. If we get that right, we can cut costs dramatically. Therefore, the programme is good not just for emissions reductions, but for agriculture per se.

We must monitor it. As I said, the plan has been to monitor the initiative this year by measuring its impact and surveying how many farmers have engaged with it. This year is quite an important one in getting to that stage.

09:45

It is now a bigger debate. It is an extremely important debate, given some of the other pressures that agriculture in Scotland faces, the reform of the common agricultural policy and the impact on the Scotland rural development programme of reduced budgets. We must pay a lot more attention to focusing on how we can make farming more efficient and persuade more farmers to engage in doing things differently, because of the win-wins that that will achieve and because of the fact that we have RPP2, which we must put in place to achieve our ambitious climate change targets.

Graeme Dey: So, in essence, the outcome of the survey will determine how you proceed.

Richard Lochhead: I will look at whether we need to refresh the initiative and whether we need to do things differently, but the first stage is to understand what impact it has had and to survey farmers so that we get their views and understand how many of the 20,000 people with farm holdings in Scotland and how many crofters have engaged with it.

Graeme Dey: Thank you. Moving on—

The Convener: Before you move on, Claudia Beamish has a related point.

Claudia Beamish (South Scotland) (Lab): From what you have said, cabinet secretary, and from what I have heard about visits by farmers to the monitor farms and attendance at the open days, the interest in the programme is extremely encouraging. Is there any possibility of farmers doing on-farm assessments of carbon emissions? Having been an eco-schools co-ordinator, I appreciate how hard such assessments are to do. However, some of the activities are quite straightforward. Primary pupils can do them, so I know that farmers will be able to do them, too—not that I am drawing a parallel. It is important that engagement in behaviour change involves farmers taking responsibility as well as doing the work.

Is the farming for a better climate programme adequately funded? It seems to me that it is the main programme that is there for farmers—I am not criticising the fact that that is the case.

Richard Lochhead: You raise interesting points. How do we go about ensuring that every farm in Scotland has a carbon reduction plan? How do we carry out an assessment of the carbon footprint of every farm in Scotland? That is a good debate to have, and it is something that I am thinking seriously about.

Other countries tell me that they have carried out brief, shallow assessments of individual farms, perhaps for marketing or green agriculture purposes, so that the food that comes from those

farms can have a green mark. We want to look at that in this country—indeed, it is already happening. I mentioned in my opening remarks that the food and drink sector has a sustainability strategy. The whisky sector has an environmental strategy, which is to do with reducing emissions. They are looking at such issues already. We should consider such an approach at individual farm level and work out how it could be implemented.

You mentioned behavioural change, which is a key issue. What is the role of Government on that? It is clearly Government's role to make agriculture aware of the many benefits of changing some of the practices on farms to protect the environment and to cut costs. At a time when the cost of feed and fertiliser is rocketing, surely it is in the interests of each farming business to take some unilateral action to review its business practices. That is about taking personal responsibility for the business. It is not for the Government to turn up on every farmer's doorstep and demand that this or that happens. That is why we have taken a voluntary approach so far. It is in the business interests of each farm to look at some of the measures that it can take to reduce costs.

We will review Government expenditure on the programme and will look at how best to encourage every farm to have a carbon reduction programme—a business plan that takes carbon emissions into account. We have the agriculture and climate change working group, which is a stakeholder group for farmers. We have asked it about such issues. That dialogue will continue.

Graeme Dey: Will you outline what work is being done to develop the optimising livestock management work stream of the farming for a better climate programme?

Richard Lochhead: That is a key plank of the farming for a better climate programme. Given that methane is one of the key gases that agriculture in Scotland produces, we must improve livestock management across the board. The Scottish Agricultural College—now Scotland's Rural University College—has been heavily involved in that in the past few years.

Scotland has a world-leading research facility that is called the green cow project. At that facility, researchers look at what implications changing feed has for the levels of methane produced by livestock. The aim of that research is to understand better how we can improve feed components and overall livestock management for cattle.

The health of stock, breeding stock, breeding practices and feed all make a major contribution to the carbon footprint of livestock. The farming for a

better climate programme is focusing on such subjects. A lot of work is happening.

Graeme Dey: How engaged is the industry in that work? Are you identifying buy-in for it?

Richard Lochhead: Lots of on-farm case studies show how farmers have changed their practices and got good results. One farmer saved £3,000 just by changing how he feeds his animals. A dairy farmer whom I sat next to at a dinner a few weeks ago told me that he cut his fertiliser and feed costs by 40 per cent. Such reductions are substantial.

I made the point earlier about getting the message across to agriculture that a win-win is involved. Farmers will reduce emissions and help Scotland to achieve our targets, but they will also make more profit and cut their costs, so looking at the subject is in their interest.

There are lots of individual case studies. As for engaging with farmers, I return to my previous answers. We are constantly striving to do such engagement. All the farming organisations in Scotland are engaged in the debate. They are all speaking to their members about the benefits of implementing changes, as well as the Government's initiatives.

Jayne Baxter (Mid Scotland and Fife) (Lab): I will ask about changing the behaviour of farmers and the challenge of communicating with 20,000 of them—you said that you recognise that that is a big challenge. Yesterday, we spoke to the minister about the need to get buy-in from all stakeholders, to raise awareness of issues and to identify winners and losers and—when possible—take them with you. You have said that you are aware of all that. However, the document does not address much of that—it is a bit thin on the ground on how that will happen. You have spoken about things that you will do, but they are not in the document. Will you comment on that?

Richard Lochhead: Decisions are always made about what is and is not put in a document when it is already 100-odd pages long. I will certainly take on board your comments. Because the common agricultural policy is being renegotiated and because the new policy has a greening element—it is proposed that 30 per cent of a payment must be linked to greening measures—that provides an opportunity to engage with the agricultural community.

If there is one thing that will engage all our farmers, it is future support mechanisms. That is a good opportunity to engage all our farmers in the debate. If we are to link farming payments with greening measures, that provides a direct link and we must use that hook. Another opportunity is the new rural development programme, which I want to be more focused on carbon reduction

measures. Over the next 12 months as we work on what the new rural development programme will look like, we will engage heavily with all landbased industries, rural communities, environmental organisations and, of course, farmers.

Jayne Baxter: That all sounds interesting and useful. It would just be great to see some of it, or even a reference to it, in RPP2.

Richard Lochhead: It is a draft document, and I am happy to take away those comments.

Jayne Baxter: I will move on to raising awareness among the public about the challenges ahead. The public expect to buy quality food at rock-bottom prices, and recent revelations about horsemeat have brought that issue to a head. However, farmers are expected to deliver that within a low-carbon framework. Will the draft RPP2 deliver that?

Richard Lochhead: The issue of food miles in the food industry is a growing one, and the length of supply chains is currently in the news. I am on record as saying that we want to encourage more sourcing closer to home and shorter supply chains, but that does not mean that, when we go into supermarkets, shops or wherever, we do not want products from around the world like those that every other consumer elsewhere in the world enjoys. However, where we can produce products locally, it clearly makes sense to do that to cut down food miles and to have shorter supply chains. There is a range of reasons for that—that aim is not only to reduce the carbon footprint, but to improve traceability and consumer confidence and to support local economies.

If we cut the carbon footprint of the primary producers in the food sector, we will cut the carbon footprint of the food industry in Scotland. As I said, the food and drink industry has adopted a sustainability strategy, which I launched a few weeks ago. Over the past few years, the whisky industry has adopted a carbon strategy, which is leading to changes in everything from the amount of glass that is used in bottles to how the energy that is used at distilleries is produced. A phenomenal transformation is taking place in the whisky industry. The committee might want to look at that separately, as it is not directly relevant, although it is relevant to the member's question.

I believe that we can cut the costs of producing food in Scotland through some of the measures. Local food does not necessarily have to be more expensive and we do not have to import from overseas to get cheap food. We have to explode some of those myths. Of course there are cost pressures in Scotland, such as higher fuel costs, but I hope that, by reducing the costs for each

business, we can displace the need to increase the price of food.

Jayne Baxter: My concern is about price. Costs are important to producers, but I am concerned about prices for consumers and the lack of choice for some families because of financial restrictions.

Richard Lochhead: Yes. There is a huge debate about the future of food, and I am considering a number of initiatives on that. We have had a food policy in Scotland for the past few vears, and that has delivered fantastic dividends. A local food revolution is under way and our retailers and food service sector now do more local sourcing than ever before. We should recognise that a lot of progress has been made in the past few years. However, the current debate about food gives us an opportunity to move forward even more quickly. I am keen to engage with our food community in Scotland and with the committee and the Parliament. I will bring a debate on the issue to the Parliament in the next couple of weeks, which will give members an opportunity to discuss the future of food.

Jayne Baxter: That is good to hear. For what it is worth, I think that there is scope for educationalists to work through schools and for community centres to work with parents to help people to learn about food and how to cook. It is all very well for people to be able to buy things, but if they do not know how to cook them, they cannot reap the benefits of the revolution that you describe. That needs to be addressed, too.

Richard Lochhead: A new set of initiatives are under way on food education in Scotland, and we will launch more of them in the coming weeks. There are exciting ideas about how to revolutionise food education in Scotland, although I do not pretend that they will all be easy to implement. However, you are right that it is important to make available opportunities for ordinary families to eat healthier and more local food.

We are also looking at what can be done during the Commonwealth games in Glasgow. We are considering a food charter to ensure that visitors to the games will have access to good local food.

Please rest assured that a lot is happening. I hope that, if we have a debate on the issue in the Parliament over the next couple of weeks, I will have the opportunity to update the Parliament on what is happening and to get more ideas from members in the chamber. I think that all parties are signed up to this issue and there are many good ideas out there.

10:00

Graeme Dey: Cabinet secretary, I want to take you back a little bit to behaviour change. Will the document on behaviour change that is to be published next week include anything for farmers?

Richard Lochhead: Perhaps Andrew Henderson can comment on that document.

Andrew Henderson (Scottish Government): We spoke about that with Mr Wheelhouse vesterday. The document will not have a central focus in the same way as the RPP document. The document will develop a set of themes and principles about effective behaviour change that are based on research about what works best and the kind of messages that should be embedded within policy making from the outset. In essence, the document will introduce a kind of toolkit or way of approaching policy design so that, when we are developing things such as a refreshed look at farming for a better climate or active travel or whatever it might be, such themes and principles should inform policy making from the base up. So, no-the document will not include a list of things for the agriculture industry, but it will be able to be drawn upon when that work is being done.

Graeme Dey: But there will be an agricultural aspect to it.

Andrew Henderson: The document could be used for that purpose, but it will not have different chapters on agriculture, energy and so on. It will simply introduce a toolkit in the sense of principles that can be embedded within policy design.

The Convener: Angus MacDonald will move us on to the next question on RPP2.

Angus MacDonald (Falkirk East) (SNP): Good morning, cabinet secretary. As we are all aware, work is on-going on implementing changes to the common agricultural policy. Can you expand on the changes that have been made to the draft RPP2 as a consequence of changes to the CAP? How will the Scottish Government compensate for any changes? In particular, if pillar 2 and rural development funds are cut as a result of changes to the CAP budget, will the final RPP2 offer assurances that a future Scotland rural development programme or equivalent will provide adequate funding for measures to lock carbon into soil?

Richard Lochhead: Clearly, the common agricultural policy and European regulations have a major impact on how we engage with Scottish agriculture over future measures to reduce our carbon footprint. For example, to achieve a 90 per cent take-up in nitrogen efficiency measures—nitrogen is the big issue in agriculture—RPP1 previously offered the route of cross-compliance, which is the conditions that farmers need to meet

to receive payments, as one way in which the Government could influence take-up. The new common agricultural policy will not give us that discretion, so national Governments will not be able to exert an influence to the same extent, if at all, through cross-compliance measures. Therefore, we will need to find a different way in which we can make take-up of such measures mandatory—if we want to go down that route at some point in future—as opposed to voluntary.

As I mentioned before, the new CAP includes a greening dimension. Since day 1, I have supported the concept of greening pillar 1 of the CAP, which deals with the direct payments to farms—pillar 2 deals with wider rural funding. As we were in the middle of the negotiation when RPP2 was being formulated, that aspect is not included in the draft RPP2 document because we did not quite know what that greening would look like. We now have a rough idea, as there has been some movement. Under the greening proposals for the new CAP, farmers will be required to undertake certain measures regarding the number of crops that they have on the farm and to have areas that are set aside for ecological purposes before they qualify for the green payment, which is 30 per cent of the overall direct payment.

What has been negotiated is that if some of the proposed measures are not appropriate for your country, you can have equivalent measures. As part of the debate on carbon reduction measures, we could speak to the agricultural sector and say that CAP regulations defining greening may not be appropriate for Scottish circumstances, but we have the opportunity to take equivalent measures that have the same outcome. That may give us a route towards some carbon reduction measures.

Since day 1 of the CAP negotiations, I have made the point to the United Kingdom Government, to other member states and to the European Commission that carbon reduction should be a central feature of the greening and the new CAP, but it is not. That is quite disappointing.

We may be able to get carbon reduction on to the agenda in indirect ways, but the greening measures are not overtly about carbon reduction. They are clearly related, as they propose good biodiversity and good environmental practice, which have an impact on carbon emissions. However, direct encouragement of farmers to undertake specific carbon reduction measures is lacking from the CAP.

Your second point was about what help would be made available. I am afraid that the SRDP will have a much smaller budget in future under the budget deal agreed by the UK Government. I will give more details to the Parliament shortly on the budget consequences for Scotland from that recent budget deal.

We went into that budget negotiation with the lowest pillar 2 funding in the UK out of the devolved Administrations and the UK Government—the lowest pillar 2 funding in Europe. Unfortunately, the outcome of the recent budget negotiation may be even worse. That is still to be verified, and I cannot give a guarantee to the committee about the exact outcome. However, the indication is that not only will we still be bottom, but we will probably be in a worse place than we were before.

My key point is that we have to focus much better on how to use our limited budget for the new rural development programme. With a smaller budget, we will have to really focus on what we want out of that programme as a country. My current view, which we will take to stakeholders, is that one of the key planks of the programme has to be the reduction of the carbon footprint of land use, agriculture and rural Scotland—not just to achieve our targets, but because of the other benefits that we talked about earlier. That is where we are going with that.

Angus MacDonald: Thank you. You mentioned greening through pillar 1. Is it fair to say that progress in the past few weeks has been to Scotland's benefit, compared with where we were just two or three months ago?

Richard Lochhead: Yes; we have moved forward considerably on the greening proposals. They were, in effect, designed to tackle monoculture—in some parts of Europe, you can look out of a window and, as far as the eye can see, the same crop will be stretching into the distance for several miles. That is not necessarily the best arrangement for the environment.

Scotland is completely different. We have arable farms in Scotland and we have barley crops in the whisky sector, but overall the picture in Scotland is a million miles—or a million hectares—away from the picture in some other countries in Europe. We do not want measures that are designed to tackle monoculture in those countries to be foisted upon farmers in this country. We therefore sought much greater flexibility, with much more account being taken of Scottish circumstances.

We have extensive grazing and hill farms. Most of Scotland's land is of poor grazing quality—it is not intensive farming, it is more extensive farming. We now have greater flexibility to take into account Scottish circumstances. The thresholds that you have to reach to have the three crops are greater, which will give us much greater flexibility, and fewer people will have to adhere to those conditions. Some of the regulations will be on more of a parish level than an individual farm

level, which will give us much more flexibility over how we measure and implement them.

The equivalence measure means that if we do not want to use some of the proposed measures, we can come up with something that gives the equivalent outcome—that gives us much more flexibility to consider alternative measures. We are much further along the road towards getting what Scotland needs out of those proposals.

The Convener: We return to RPP2 with some questions from Alex Fergusson.

Alex Fergusson (Galloway and West Dumfries) (Con): The last few remarks from the cabinet secretary are welcome. I am sure that we all agree that the original proposals were entirely unsuitable for Scottish conditions, so I was pleased to hear what the cabinet secretary said.

The cabinet secretary mentioned the role that methane gas plays in the problems that we have. I congratulate him on the delicacy with which he chose his words to describe the production of that substance. As he rightly said, it is not easy to determine what we can directly do about the problem. With great respect, I say that, although looking at diets and so on might have an effect, I doubt that it will be a major one.

Anaerobic digestion played a part in RPP1, but for various reasons that are largely to do with the expense, there was not a huge take-up in the industry. Was the matter considered for inclusion in RPP2? Why was it not included?

Richard Lochhead: Anaerobic digestion offers Scotland a big opportunity, both in relation to dealing with food waste and on farms. Many farmers have explored it in recent years. To a certain extent, the inclusion of anaerobic digestion in RPP1 has been overtaken by events, in that it is now much more economical for farms not to rely on Scottish Government grants for anaerobic digestion but to use the feed-in tariffs and other incentives that exist. Farmers cannot have both benefits—they cannot have a Government grant and take advantage of the feed-in tariffs—and they are saying that the feed-in tariffs give them a much better return.

We therefore decided that there was much less of a role for direct Scottish Government support for anaerobic digestion in RPP2, given that the other incentives are where the industry is going. That is essentially the reason why anaerobic digestion is not in RPP2. There are still support mechanisms for it, but they will be much less attractive to the farmers who could apply for them.

Alex Fergusson: That makes perfect sense. Thank you.

On a different topic, we heard concerns in evidence about the adequacy of the monitoring,

uptake and coverage of the nitrogen efficiency measures that you mentioned. The RSPB suggested that there should be a clear route map for the introduction of the measures by all farmers that includes the timing and the regulatory trigger. In asking this question, I do not want you to think that I support that suggestion, but I would be grateful for your comments on it.

Richard Lochhead: I want to strike a balance. Albeit that it is too early to rule anything out, we need to consider how we can encourage every farmer in Scotland to have a carbon reduction plan for their farm. Many already have such a plan. I note that the trade press such as "Scottish Farmer" has changed phenomenally over the past few years. About half of each edition of that paper is now a supplement about renewable energy. That is a big change from five or 10 years ago, and it shows how the mindsets of many farmers have changed. They are looking for opportunities to cut costs, to reduce their carbon footprints, to source their own energy and so on. That is encouraging.

We want to encourage every farmer to have a carbon reduction plan in place, as the RSPB and others want. However, do I want to force through lots of regulation for every farm and create more paperwork and more bureaucratic hurdles? Clearly, we want to avoid that if possible, and a better way forward is to find a way in which we can engage with every farmer and persuade them that it is in their interests to have a plan in place, as well as in the interests of the environment and the Scottish targets. That is my preference.

I cannot sit here and rule anything out for the next few years, because RPP2 goes up to 2027, and if we get to a certain stage and things are not happening, we might have to look at other means. However, the outcome that we should focus on is that we want every farm in Scotland to have a carbon reduction plan and to reduce its carbon footprint.

Alex Fergusson: RPP2 refers to the desire for 90 per cent of farmers to take up the plan. Have you yet thought of what plan B is, if it looks like that will not happen?

10:15

Richard Lochhead: Plan B would be mandatory take-up. We are up front about that. We have not ruled that out. At the moment, we are allowing people to take a voluntary approach. We have already discussed farming for a better climate, and we are thinking about the next stage of that and how we can survey and monitor it. That might give us some evidence that we have to do things differently.

The Convener: Carrots and sticks.

Alex Fergusson: Carrot first, is what I was thinking.

The Convener: Indeed.

Claudia Beamish: Your remarks about carbon reduction, and the associated commitments, are helpful in terms of our climate change targets and our aspirations for farming, as they will allow farmers to increase their profits, if they do it right. Is there any possibility that RPP2 could highlight the issues that could not even be made as a proposal in relation to pillar 1, the CAP and the SRDP because negotiations are on-going? You have put down quite a marker and I wonder whether there is any possibility of considering that in the document.

Richard Lochhead: There is a possibility, simply because we have three months to finalise the RPP2 documents. We will be in a much better place to understand the role that the new CAP will play at the end of that period, which will perhaps give us an opportunity to say a bit more. I will certainly think about that.

Nigel Don (Angus North and Mearns) (SNP): On nitrogen efficiency, I want to ask about a couple of lines in the table on page 167 of RPP2. The numbers in the "Farming for a better climate" line rise steadily from 50 to 107. That makes perfectly good sense. However, the numbers in the "90% Uptake of Fertiliser Efficiency Measures" line go from zero to 260 between 2017 and 2018.

Yesterday, Mr Henderson helpfully explained the way in which the figures had been put together—from the bottom up. I listened to him carefully and was grateful for his explanation. However, I suggest that, although I understand where that step change might have come from, the numbers are not particularly credible. You might want to consider before publishing the final product whether there will simply be a step change in 2018. Perhaps there will be. Can you defend that step change in the figures? If you cannot, we are presumably looking at something that will change over time.

Richard Lochhead: Clearly, the figures relate to a step change that involves the fact that, by 2018, we want 90 per cent of take-up of nitrogen efficiency measures by farmers. That is reflected in the table. That is why there is such a step change. We need to understand, over the next two or three years, whether we can rely on the voluntary approach to achieve that or whether we will have to go to a mandatory approach. The table is outcome focused. It says that we need to get to that point by 2018.

Like so many things in RPP2, we are talking about things that will happen years into the future. I accept that 2018 is not as far away as 2027, but the situation is fluid. RPP2 lays out policies and

proposals, and we have to make them happen. That is why we are having a debate just now about whether the approach is voluntary or mandatory. As I said, plan B is to consider the use of mandatory measures.

Nigel Don: But you accept that the process will involve some numbers before 2018, which means that that zero for 2017 does not mean zero. It makes sense in the context that you are talking about but, presumably, there will be some abatement by that year, because some farmers will voluntarily be doing the right thing.

Richard Lochhead: I will bring in Andrew Henderson in a moment, although I hope that I will pre-empt his answer, as that would be a good sign.

We do not have the data on a lot of these issues. As I said, there is a learning curve and a great deal of work is under way on understanding what is happening with fertiliser. We know that there has been a massive reduction in agricultural emissions—more than in the rest of the UK and more than the average reduction in Europe—since 1990, which is a result of the fact that agriculture has developed differently in this country. In the past few years, Parliament has adopted the climate change targets and the farming for a better climate initiative has been up and running. We are gathering data to understand the impacts, and then perhaps we will be able to populate some of those years with data as we get further advice.

We have taken quite a conservative approach to RPP2. Governments are often accused of including inflated numbers because we want to be ambitious and ensure that we meet our targets. However, between RPP1 and RPP2 a lot of the data has been revised, and we have taken a conservative approach. If we do not have evidence of what has been achieved, we do not want to put that information in the document.

Andrew Henderson: The point about the evidence is important—we have touched on it a few times in the committee, including yesterday with the minister and today with the cabinet secretary. The data changes all the time, and in preparing the draft RPP2 it has been quite a task to arrive at what we believe is the credible point at which we fix the numbers to put them into the document, because in a month's time things will have changed.

On the specific point about uptake of the nitrogen efficiency measures under the farming for a better climate initiative, I refer to the point that I made at yesterday's meeting: sometimes we just have to pick a date at which we start counting the abatement. However, in the numbers in the farming for a better climate policy line, there is an assumption about a growing uptake of nitrogen

efficiency up to the maximum that we believe could be achieved under a general voluntary approach.

The jump under the proposal is the step change to full compliance—or close to full compliance—under a mandatory framework. There is a gradual approach under the farming for a better climate policy line, and then a step change under the proposal line, at which point farmers will be required rather than just recommended and encouraged to do those things.

We anticipated the possible confusion around the complexities of those numbers, so there is a specific section on that particular point in the technical annex to RPP2. On page 66, we have outlined how we arrived at those numbers, although even that is the short version. We can get into that issue if the committee really wishes to explore it, but I hope that there is enough information in the technical annex on the gist of how we reached that point.

Nigel Don: I thank you for that very gentle telling off, which I respect. I wonder whether we could get back to the basic biology. The cabinet secretary's previous comments suggest that we will perhaps have different crop rotations and that, rather than put expensive nitrogen into the ground, we will let the plants do it for us. Are we seriously looking at a situation in which we plant more clover and alfalfa, and get such plants into rotation in the way in which they were used historically?

Richard Lochhead: There are two separate issues in that regard. The three-crop rotation, as proposed under the common agricultural policy, is about biodiversity. There may be implications for emissions, but that is a different issue from the nitrogen aspect.

There are two issues relating to nitrogen in Scotland. If too much nitrogen is put on the ground through agricultural practices, it can run off into water courses and cause pollution. As you know, we have implemented nitrate vulnerable zones in Scotland under the European Union nitrates directive to try to curb that pollution, because it is not good for our water quality or for biodiversity. If too much nitrogen is put on the crop and goes into the air, it becomes nitrous oxide, which is a powerful gas that gets into the water and air and contributes to global warming.

That is why we want our nitrogen use to be more efficient. It is also why many farmers are doing a lot of good work to become more efficient with what they use, not least because the cost of nitrogen or fertiliser is rocketing. We must target those two issues and do so across all agriculture that uses fertilisers, although there is also a livestock dimension to the issue. The three-crop rotation from the CAP is separate to that.

The good news is that the amount of fertiliser that is used in Scotland has declined substantially in recent years. That is one of the reasons why Scotland's emissions from agriculture have gone down much more than they have elsewhere. Perhaps fewer crops have been sown in Scotland compared with elsewhere, so there is less of a need for fertiliser, but I am told that the amount of fertiliser that is being used on tilled land has reduced by 16 per cent during the 10 years to 2011. There has been a reduction in the use of fertiliser, and I expect that, in the next few years, the statistics will show a further decline.

The Convener: The point about the efficiency measures and the targets in the farming for a better climate programme is that it looks like there might be some double counting in the way in which the statistics have been presented. Is there any double counting?

Richard Lochhead: We go to great lengths to avoid double counting, and we have discussed the technical reasons why it does not happen.

Antje Branding (Scottish Government): We are aware of the fact that in the two policies—farming for a better climate and 90 per cent uptake of nitrogen efficiency—there is a potential for double counting. That is why we specifically addressed the issue, and it is set out in the technical annex on page 66 under the heading "Policy Interactions". That sets out the way in which we have gone about addressing the issue. I am not quite sure how much detail you want me to go into, convener, but the annex specifically addresses the point that we have avoided the double counting.

There is also a possible policy interaction with double counting with the agricultural technologies proposals. The technical annex sets out how we specifically address that problem, too.

The Convener: Thank you for that; it will allow us to reference the point. It is a very technical explanation, but we can always ask questions if we need to.

Nigel Don, you had another question.

Nigel Don: Did I?

The Convener: You were going to ask our question number 12.

Nigel Don: I think that it has been covered.

The Convener: Okay. We will move on to the next one, and I think Alex Fergusson will lead on that.

Alex Fergusson: I am happy to ask a question but I thought you were discouraging it, convener.

The Convener: No, no. You expressed an interest in asking a question on technical potential.

Alex Fergusson: I am grateful, convener, although to be fair we covered the issue in some detail at yesterday's meeting.

Cabinet secretary, page 167 of the RPP2 has a table on rural land use. Yesterday we had a long discussion on additional technical potential from low-carbon land use. That is heavily backloaded in 2025, 2026 and 2027, but in those three years it produces the greatest abatement figures of all. Given the use of the word "potential", one has to suspect that the target is, to a degree, aspirational. Is it possible to put any more detail on how that high level of abatement can be achieved for something that is really an aspiration at this point?

Richard Lochhead: The big challenge that we face with a document that takes us out to 2027 is that we are sitting here in 2012-13. How can we predict exactly what technologies will be available, and what other factors will influence land use and agriculture, especially given climate change?

At the same time, we have the targets that Parliament signed up to. We therefore must focus if we are to achieve those ambitious targets. If we look at land use and agriculture in Scotland in the context of the debate, we must ask where we can be transformational and do things differently, compared with what we have done before, in a way that will have an impact on the targets. It is challenging to balance those factors, particularly for targets that begin in 2013 but look ahead to 2027.

10:30

Those are the origins of the proposals. We have learned a lot more about, and are much more focused on, how we will manage our peatlands in the future. As we learn more about the science behind carbon in Scotland and how to achieve the targets, and through our work with advisors, scientists, the climate change advisory group and others, we know that peatlands have a major role to play with regards to our accounting. That is why peatlands will be a major transformational policy area. As you know, the recent budget kicked off some funding for the peatland restoration policy over the next three years, and we have committed to making that a much bigger focus in a decade or two ahead.

We have seen phenomenal advancement over the past few years in the technology that can be used for precision farming. An example of that is working with soil to ensure that the fertilizers are applied to the right parts of the field and so on. We are putting a lot of stock on the role of technology in future agricultural practice. We must maximise that for Scottish agriculture because it will offer huge benefits in relation to how we achieve some of the other things that we are speaking about.

Clearly, I could discuss other developments, including woodland cover in forestry, but I have outlined our focus and our best estimates of how we plug the gaps. Those may change in RPP3 in 2016 or whenever that report is to be published. In 2016, we will be publishing documents that consider 2027 and beyond, so the debate will change. We are working on a variety of areas that we know about and where we think that there is massive potential for action.

Alex Fergusson: I am grateful for that explanation. I do not disagree with anything that has been said and I fully appreciate the difficulties in forecasting. As I said in the chamber debate, it is much better to set challenging targets and miss them than to set easier targets so that you can say that you have achieved them. The balance is right.

However, I sound a note of caution. This committee does not deal with transport, but I note that a table on transport in the report contains a similar loading on the last three years of the RPP2 period of potential improvements that come to same figure as the one that I am referring to. Those two figures added together come to 11 per cent of the total abatements over the RPP2. That is a high figure to place on a potential saving, which, no matter how well founded, is largely aspirational. I question whether that is opening up a hostage to fortune.

Richard Lochhead: I understand your concern—we have similar concerns when we are considering the projections for 2027. We might think that the targets are challenging, but there might not be an alternative, which is why Parliament took the decision to set the targets.

As I said, agriculture and land use account for around one fifth of emissions in Scotland. We must find ways of being transformational if that one fifth is to play its role. That is a key consideration.

The Convener: We move on to waste and resource efficiency.

Jayne Baxter: Cabinet secretary, the committee has heard that the waste and resource efficiency section of the report relates mostly to dealing with waste rather than reducing it in the first place. Why is the importance of the waste hierarchy not reflected in RPP2? Are there more proposals and policies that could be included in the final document to address that concern? I accept that that might involve looking at supply chains and behaviour change—I seem always to end up talking about behaviour change—because things other than focusing on waste disposal can be done to reduce the waste.

Richard Lochhead: Our zero waste Scotland policy, which we adopted a few years ago, is ambitious in its objective to reduce the amount of

waste that we produce and what we recycle and reuse.

RPP2 focuses on the cause of emissions. The figures show that the vast majority of emissions in the waste industry are methane from landfill. Methane is much more powerful than other gases, which is why it must be tackled. There has been a massive reduction in methane from landfill in Scotland since 1990, but that does not mean that there is not a big challenge ahead for our waste industry.

We have consulted on what our targets should be for reducing waste in Scotland. We expect that, between 2010 and 2014, the amount of municipal waste per person will fall by 13 per cent, largely because of the recession. I know that that does not directly answer your question about targets, but that is background information for the debate about how much we expect the amount of waste that is produced to fall because of economic factors.

Jayne Baxter: Because of reduced consumption.

Richard Lochhead: Yes. We are looking at a target, on which we have consulted, of reducing the waste that is produced by 15 per cent by 2025. It is fair to say that, in the past, we have not had targets specifically for reducing the amount of waste that we produce in the first place as a country, but we have looked at that issue as part of our recent safeguarding Scotland's resources consultation, in which many other waste-reducing measures have been looked at, such as single-use carrier bag taxes or levies and other measures that are currently in the mix.

I can talk about waste for a long time, but I hope that that addresses your particular point.

Jayne Baxter: Perhaps it would be helpful to have some cross-references in the document. I know that you do not want to write screeds, but you are telling us good things that are not in the document.

Richard Lochhead: I am glad that you think that there are good things in the document. However, it is clear that it would take another 100 pages to put all the things—the whole zero waste plan and the whole farming for a better climate plan—in it. I am trying to focus on what RPP2 is about, but I am also listening closely to your comments on what more could be put in the document.

Jayne Baxter: Would you like to comment on the view that has been expressed to the committee that emissions reduction targets from the waste sector are heavily reliant on policies that existed before 2010?

Richard Lochhead: Yes, I would like to comment on that. We have had a number of consultations in the past year or two. We have consulted on safeguarding Scotland's resources and, of course, we put the Waste (Scotland) Regulations 2012 through Parliament.

It is worth conveying to the committee again that the waste regulations are radical and ambitious. They will ban certain materials from going to landfill: biodegradable materials will not be able to go to landfill by 2021. No other part of the United Kingdom has adopted that policy. Within a few years, such materials will simply not be allowed to go to landfill. There are other measures in the regulations on what can go to incineration, so that is constrained, too.

Food waste collections will kick in at the same time, too. I think that just under a third of homes will have a food waste collection service within the next year or so. The member will know about Fife, and let me say well done to Fife Council, which has led the way on a number of issues.

The situation is a huge step forward from where we were just a few years ago in food waste collection, which is addressed in the regulations that will be introduced in 2015. For example, there will be collections from businesses, and we will not be able to put certain materials to incineration. That is not all pre-2010 work—it is all post 2010, and it will play a major role in reducing emissions in Scotland.

Alex Fergusson: A witness told us that all the low-hanging fruit has already been picked. His concern was that RPP2 contains only one additional waste proposal, on methane recovery. As we have already discussed, that is a bit of an inexact science. Were any other measures discussed in drawing up RPP2? What is plan B?

Richard Lochhead: Again, because more than 92 per cent of emissions from our waste arise from landfill and RPP2 focuses on specific measures to reduce emissions, that is the policy in the document for waste.

Clearly, the document mentions other issues regarding waste, some of which I have already referred to. To take that argument to the extreme, if we reduce that 92 per cent there may not be a requirement for plan B.

I also mentioned the impact that waste in this country can have on the global footprint. We are contributing through our zero waste plan to reducing the global footprint. In Scotland, our biggest challenge is methane from landfill. Tackling that is the big goal in the waste agenda. There are things that have to be done, and we are doing them.

Roderick Campbell: We have heard the cabinet secretary's comments on economic recession, plastic bags and, of course, the successes in Fife in food waste collection. What would you say to the general comment that the figures on waste per person are based on assumptions rather than on evidence?

Richard Lochhead: The data in the document are thoroughly evidence based. The debate around some of the issues that we are discussing is about behavioural change. New measures have been put in place to deal with what we have traditionally called waste, which we now see as a valuable resource. That is a key point. We have to move from seeing waste as something that goes to landfill to seeing it as a valuable resource that can be recycled or reused.

Last week, I was in Ikea for the first time in a few years. I did not eat anything in the canteen, although it would have been perfectly safe to do so; I would not have been able to get their meatballs if I had gone this week. I was launching a new pilot scheme, which we are funding through Zero Waste Scotland, of reverse vending machines and deposit and return schemes. Bottles and cans that would in the past have gone into landfill will in the future be recycled—they will go into those machines, be returned through deposit and return schemes, or be collected from our homes or businesses. The waste per person will decline, because it is a valuable resource that is not going to landfill but being recycled.

We are not there yet. Many other countries are miles ahead of us with regard to collecting bottles, cans and so on for recycling, but I hope to persuade the committee that there are measures in place to change how we do things in Scotland. Reverse vending machines are being piloted by Ikea and various other businesses. People can put cans and bottles in the machine and in return get a voucher or give 10p to charity. I think that that is a good way to do things.

We are ahead of many countries in doing that, but many countries are ahead of us and we need to catch up with them, which is my ambition. As we all know, some Scandinavian countries have collection rates for cans and bottles of 90 or 95 per cent. Our rate is much lower. I ask Stuart Greig to remind me; is it about a quarter?

Stuart Greig (Scottish Government): We recycle just over 40 per cent.

Richard Lochhead: Is that 40 per cent of all waste? What is the level of recycling of cans and bottles?

Stuart Greig: It varies among local authorities; some are doing better than others. The range is 20 per cent to 50 per cent.

Richard Lochhead: As a country, we are not recycling enough bottles and cans. I hope that the waste per person will decline, which is why we want targets and why we are putting in place other measures. We want to ensure that our waste is seen as a valuable resource.

Roderick Campbell: I will ask about a more specific point that was raised in evidence by Stop Climate Chaos Scotland. Abatement levels that have been attributed to zero waste policies for each year between 2013 and 2022 have increased by between two and four times the abatement that was attributed to the same policy in RPP1, but without any clear explanation. Will you comment on that?

Richard Lochhead: Andrew Henderson or Stuart Greig will comment on that in a moment. RPP1 included the data that were available at the time—the scientific and research inputs. The advisers and analysts who advise the Government have been updating all that information—the data, research and science—since RPP1. We had to change a lot of the figures in RPP2 to reflect the up-to-date science and information. The differences between the reports are due purely to that updating.

10:45

I would prefer to be accurate: if that means saying that there have been more emissions from something than we thought there would be, we put that in the document, which is why RPP2 is different to RPP1 in places.

Roderick Campbell: Is there a case for adding footnotes to explain that?

Richard Lochhead: Stuart Greig will comment on what information we can give.

Stuart Greig: I will add a little bit. We are talking about 300 or 400 landfill sites across Scotland. We do not know what is in those landfill sites because it is stuff that was buried years ago. We have to use quite a few assumptions in working out how much methane has been emitted. Methane is emitted from landfill sites for decades, and we are trying to understand how that changes over time. I assure the committee that internationally recognised methods are employed and that the work is reviewed and peer-reviewed.

The level of those emissions has changed due to a combination of things. The recession meant there was less going to landfill, developments such as the roll out of food waste collection across Scotland have reduced what is going to landfill, and more sophisticated methodology has been applied.

The Convener: In paragraph 8.6.2 on page 140, the draft RPP2 states:

"Through Zero Waste Scotland, we are mapping out opportunities for enhanced gas capture across Scotland. The final report will provide the basis from which to make the future policy decisions required to achieve the abatement potential."

I take it that that wraps up what you are going to explain in a bit more detail, and that the capturing of gas from inactive landfill sites will form a part of that, given that it is quite a large figure in the table of abatements?

Richard Lochhead: Yes. At the moment some landfill sites capture gas, some do not and some have flares. We have to achieve the targets by understanding how to improve that. That is why the report has been produced.

The Convener: Thank you. We will now shift to the deep blue sea. The next question is from Claudia Beamish.

Claudia Beamish: There is good reason to shift to the deep blue sea in relation to RPP2. I share the disappointment that has been expressed about the lack of information and detail about marine issues in the draft document. The fact that you did not mention anything about marine issues in your opening remarks does not mean that you are not thinking about those issues.

I will be open about the fact that I did not know until recently what blue carbon is. I have researched it in some detail, so I had hoped that there might be the possibility, at least in proposals, of looking at sequestration through blue carbon.

I draw to your attention Scottish Natural Heritage's evidence to the committee, which said:

"Whilst woodlands and peatlands are acknowledged to play an important role in carbon mitigation, it has more recently been recognised that marine habitats may also have a significant role."

You will know that there has been recent research by the Scottish Association for Marine Science into the current status and knowledge about that issue. As SNH is exploring those possibilities, I wonder to what degree this might be properly reflected in the final document, at least in proposals?

Richard Lochhead: "Blue carbon" is a phrase that is now part of the lexicon and with which I, too, became familiar only recently. I am sure that we will hear a lot more about it in the years ahead.

I could talk for quite a while about what is a very interesting issue, but the key point is that we do not have data on the contribution of blue carbon. There is a lot of uncertainty because it is a relatively new area. In publishing a document with tables detailing all the figures on how we will achieve our targets, we could not include a target for blue carbon, which is why it is not covered. I take the point that there should be perhaps be reference to it.

Over 2013-14, our agencies will carry out a lot of work on trying to understand more about blue carbon on our sea beds and its contribution as carbon sinks and so on. It is a very exciting area that links to many other policy initiatives; for example, what will be the role of the future marine protected area network under the Marine (Scotland) Act 2010 and in protecting blue carbon? Our existing policies recognise the need for our marine environment to mitigate climate change and to play a role in our climate change policies, but the lack of data and evidence is why blue carbon is not included in the tables.

Andrew Henderson might want to add to that.

Andrew Henderson: I will add a little about some of the reasoning and thinking behind why blue carbon is not in RPP2. We approached our colleagues in Marine Scotland to discuss blue carbon when we were thinking about what should feature among the list of proposals and policies. The issue is very much that we do not have the data that would enable us to project the abatement potential from blue carbon—from marine ecosystems.

The committee has discussed several times the journey that we have come on in our understanding of what might be achieved through peatlands restoration; there is a similar story for blue carbon. A few years ago, we knew very little about what might be achieved from peat. We know a lot more now, but we are not at the end of that journey. We are further behind on blue carbon. We did not want to put into the document something that would in effect have been a fantasy—an invention of numbers—because that would have been inappropriate.

An additional technical point is that the draft RPP2 document has quite a specific definition of what constitutes a "proposal". Proposals relate to issues on which we understand enough to be able to project an abatement figure, such as "If we implement this proposal, we believe that we could get abatement in the region of X." We do not have such data for blue carbon.

Another important point is that blue carbon is not part of the international framework for reporting on greenhouse-gas emissions abatement. We have just got the movement internationally to adopt wetlands management, which includes peatlands restoration; blue carbon is a step beyond that. If we were to include something on blue carbon now, we would be going quite a way beyond the international framework for reporting on emissions and emissions reductions. We could do that under the legislation, but we would be going out on a limb somewhat. We prefer to stick much more closely to international methodologies, so we are doing things in a way that matches up internationally and is responsible.

Richard Lochhead: I am now kicking myself under the table—as you always do at committee. When Andrew Henderson gave me that analogy about peatlands yesterday, I said that I would use it at the committee today, but I forgot. It is a very good analogy. Where we were with peatlands a few years ago is where we are now with blue carbon.

Claudia Beamish: I want to explore that a little further. Other technical issues relating to after 2020 are tabulated in the RPP2 proposals, such as the agriculture and land use issues that we have discussed, although we do not know much about them yet. I want to examine the issue as closely as we can and consider, for example, what funding might be needed for research on issues such as salt marshes, sea grass beds and kelp forests. As you said, such issues might come under marine protected areas. The final report needs to include a marker that these issues need to be addressed. Blue carbon is fundamental and I feel strongly about it.

In that context, I have another question. Will you update the committee on the likely publication date of the national marine plan? How will or could that plan incorporate concepts of blue carbon? I suspect that it will be a little early for it to incorporate anything more than the concepts.

Richard Lochhead: The national marine plan will be published for consultation this summer, for alongside the sectoral plans renewables and at the same time as the MPA network proposals. That is because the three are closely linked and we want the synergy from their being out there at the same time. We do not want to have a debate on the impact of marine renewables, and then have an MPA debate and then a debate on the national marine plan. We will have all those discussions in parallel, because they are closely related. We want to have the debate and ensure that each plan takes on board points from the others.

The three plans will be consulted on and will all take into account carbon and climate change issues. For example, the sectoral plans for marine renewables could involve laying of pipelines and cables and if it would impact on blue carbon—I am not saying that we will be advanced enough to know that by the summer—the plans will take account of that.

Claudia Beamish: I have one further question that is based on RSPB Scotland's evidence on sensitive marine areas. It recommends that the RPP2 should be

"explicit in the means by which sensitive marine areas will be protected from marine development—particularly, in the context of RPP2, marine energy".

Do you agree that it should? You have sort of answered that, but a number of organisations including Scottish Environment LINK and the RSPB are concerned about how the opportunity will be taken. I completely take your point about peatlands and Andrew Henderson's points about the international obligations and the fact that the science does not exist yet, but how will we take the opportunity? There is a concern and an opportunity.

Richard Lochhead: It is a big opportunity. I will certainly reflect on the matter and I am sympathetic to including a reference to that. Because we do not know what the contribution will be to our targets, we could be open to accusations that we are including things that might not make any contribution. We have to draw that parallel. The consultation on the national marine plan is an opportunity to have a debate on that and to ensure that the issue is covered in that plan.

We did not have a marine section in the RPP2, because many of the marine issues are split across various parts of the document. For example, marine renewables fall under the energy section. We did not want to repeat things or be accused of double counting anything. There could have been a marine section, but it was decided not to have that, because it would have to bring together things that were already in other parts of the document. However, that is perhaps something consider in the future.

Claudia Beamish: That might be reassuring to a lot of people who have concerns about carbon and the contribution that the marine environment can make. It might be helpful at least to refer to that and point out that it is highlighted in other areas.

Richard Lochhead: Okay.

The Convener: I thank the cabinet secretary and his team for their evidence, which gives us a practical understanding of how the RPP2 has been drawn up, and will allow us to make, I hope, constructive and useful comments in the process of producing the final document. Thank you for coming along after a busy week. The committee has had two meetings this week on the subject and we have a lot to mull over.

Meeting closed at 10:59.

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