



OFFICIAL REPORT
AITHISG OIFIGEIL

Environment, Climate Change and Land Reform Committee

Tuesday 19 June 2018

Session 5



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ENVIRONMENT, CLIMATE CHANGE AND LAND REFORM COMMITTEE
20th Meeting 2018, Session 5

CONVENER

*Graeme Dey (Angus South) (SNP)

DEPUTY CONVENER

*John Scott (Ayr) (Con)

COMMITTEE MEMBERS

*Claudia Beamish (South Scotland) (Lab)
Donald Cameron (Highlands and Islands) (Con)
*Finlay Carson (Galloway and West Dumfries) (Con)
*Richard Lyle (Uddingston and Bellshill) (SNP)
*Angus MacDonald (Falkirk East) (SNP)
Alex Neil (Airdrie and Shotts) (SNP)
*Alex Rowley (Mid Scotland and Fife) (Lab)
*Mark Ruskell (Mid Scotland and Fife) (Green)
*Stewart Stevenson (Banffshire and Buchan Coast) (SNP)

*attended

THE FOLLOWING ALSO PARTICIPATED:

Bridget Campbell (Scottish Government)
Mark Eggeling (Scottish Government)
Sara Grainger (Scottish Government)
Dr Tom Russon (Scottish Government)
Sally Thomas (Scottish Natural Heritage)
Calum Webster (Scottish Government)

CLERK TO THE COMMITTEE

Lynn Tullis

LOCATION

The Robert Burns Room (CR1)

Scottish Parliament
Environment, Climate Change
and Land Reform Committee

Tuesday 19 June 2018

[The Convener opened the meeting at 09:30]

Decision on Taking Business in
Private

The Convener (Graeme Dey): Good morning, and welcome to the 20th meeting in 2018 of the Environment, Climate Change and Land Reform Committee.

I advise members that, at 12 pm, we will observe a minute's silence to commemorate the victims of the Finsbury Park attack a year ago.

I have apologies from Donald Cameron and Alex Neil. I remind everyone present to switch off mobile phones and other electronic devices, as they might affect the broadcasting system.

Agenda item 1 is to decide whether to take agenda item 6 in private. Do members agree to do so?

Members *indicated agreement.*

Climate Change (Emissions
Reduction Targets) (Scotland)
Bill: Stage 1

09:30

The Convener: Agenda item 2 is to hear evidence from Scottish Government officials at stage 1 of the Climate Change (Emissions Reduction Targets) (Scotland) Bill. I welcome Mark Eggeling, Sara Grainger, Dr Tom Russon and Calum Webster. Good morning. We will move straight to questions.

Stewart Stevenson (Banffshire and Buchan Coast) (SNP): In addition to the advice of the United Kingdom Committee on Climate Change, which is the primary source of scientific advice for the Government, were other sources of scientific advice considered in deriving the contents of the bill?

Sara Grainger (Scottish Government): The answer to that question is both yes and no. I will explain that.

The advice from the UK Committee on Climate Change has a certain primacy in what we consider for two reasons. The first reason is that the Climate Change (Scotland) Act 2009 requires that the Scottish ministers seek and consider advice from the relevant body, and it designates the UK Committee on Climate Change as that relevant body. Therefore, ministers have to seek and consider its advice.

The second reason why we take the UK Committee on Climate Change's advice particularly seriously is that it is hard to think of another body that has the same level of expertise in it. The breadth and depth of the expertise of the people in the UKCCC is quite remarkable. At the secretariat and committee levels, they cover various climate science specialisms, behavioural science, economics, cognitive science and technology. I have certainly missed some of what they cover, but I think that members get my point. The UKCCC is therefore the ideal set of people to provide advice. However, there is nothing in the 2009 act that means that we cannot look more widely, and we certainly consider information, analysis and opinions from a much broader range of people.

In coming to its advice, among the first things that the UKCCC does is issue a call for evidence. To the best of my knowledge, that is an entirely open call. Anybody in the UK—and probably internationally—can contribute to that evidence, which contributes to the advice that the UKCCC gives.

When we get the advice, we test it out with a few people, do some internal analysis and thinking, and then consult. On the basis of that advice, ministers took the view that they wanted to take one of the UKCCC's options, so we consulted on that. That, of course, provided an opportunity for a much broader range of people to put forward their views.

We conducted some analysis ourselves. I have mentioned using the TIMES model and looking into various national examples of good and interesting practice.

To answer your question, we rely primarily on the advice from the UKCCC, because we are required to do so under the legislation, and because it is excellent. However, we are not closed to other sources of information.

Stewart Stevenson: We are trying to cover an awful lot in the time that we have, so I do not want to go down this road too far. However, it would be useful if you could give us a note of all the sources of scientific advice, in particular, that you have taken into account.

Sara Grainger: We will do that.

Stewart Stevenson: The UK Committee on Climate Change's advice is that a 90 per cent cut in emissions is at the outer edge of achievability. I understand that achieving that cut would require a 100 per cent reduction in carbon dioxide emissions. I want to put on the record that that is the case.

Sara Grainger: That is the case.

Stewart Stevenson: In the light of that, I have already drafted an amendment to the bill that would provide that the Scottish ministers must ensure that the net Scottish emissions of carbon dioxide in 2050 are at least 100 per cent lower than the baseline. The phrase "at least 100 per cent" is interesting, because it could be more than 100 per cent. That option is left open.

Mark Ruskell (Mid Scotland and Fife) (Green): The international scientific consensus on climate change is very much driven by the Intergovernmental Panel on Climate Change, which is scheduled to bring out a fresh report on climate science in October. I do not know whether you have seen some of the leaked draft copies of the report that have appeared on the internet. The leaked copies say that the world must move towards a net zero carbon target by 2050. If that is the conclusion of the IPCC, what scientific advice and support on how to deliver that target will you request from the UK Committee on Climate Change?

Sara Grainger: I am aware that the IPCC report has been leaked, but I have not studied it, and we will not look at leaked copies in any depth. We will

wait until the final version is available, which I understand will be on 8 October—it will certainly be available in early October.

The Cabinet Secretary for Environment, Climate Change and Land Reform wrote to the relevant UK minister, Claire Perry, requesting that the advice that the UK Government has indicated that it will ask the UKCCC for on the back of the IPCC report is commissioned jointly with the Scottish Government, because clearly we will need much the same information. I understand that Claire Perry has responded to that letter and has agreed that the UK and Scottish Governments should work together, but I have no further detail about that. I am not able to tell you exactly what that request for advice will cover, much less what advice might be forthcoming from the Committee on Climate Change. I cannot say how that will play out.

Mark Ruskell: Timescales are very important to this committee's consideration of the bill. Will that advice come back to this committee before consideration of stage 2 amendments?

Sara Grainger: I am not able to say anything about the timescales for that advice. I do not know when the request—

Mark Ruskell: Should that advice come back to the committee before stage 2?

Sara Grainger: That is not for me to say. It is a matter for the ministers, the committee and Parliament. My understanding is that the decisions on the timescale for the stages of the bill, now that it has been introduced, is a matter for Parliament. I am not sure that my opinion is of a great deal of importance.

Mark Ruskell: I will take us back to the IPCC advice, as there seems to be a bit of confusion in the policy memorandum for the bill. The target that we are aiming for, in order to prevent catastrophic loss of wildlife, prevent environmental refugeeism and save the economy, seems to vary between a 2° increase in global temperatures and a 1.5° increase. The references in the policy memorandum switch from one to the other. Which one is it? What are we aiming for? Are we aiming for a world that is 1.5° warmer or 2° warmer? There is a big difference in terms of the impact on our economy, on nature and on the environmental systems that sustain us.

Sara Grainger: There is certainly a big difference. The wording of the Paris agreement—I hope that Tom Russon will correct me if I get it wrong—is to aim for well below 2° and to make efforts to limit the increase to near 1.5°. Is that right, Tom?

Dr Tom Russon (Scottish Government): Yes, the agreement is to pursue further efforts to limit the increase to 1.5°.

Mark Ruskell: So why is there a reference to two temperature targets in the bill?

Sara Grainger: That is because the Paris agreement references two targets—trying to keep to well below a 2° temperature rise and to nearer 1.5°.

Mark Ruskell: So what is the target? Is it well below 2°? Is it 1.6° or 1.5°, or is it 2° and then going back to 1.5°? I am not really clear what we are aiming for.

Sara Grainger: I do not think that we can be any more clear than the Paris agreement.

Dr Russon: The defining central concept in the 2009 act is Scotland's fair contribution to avoiding dangerous climate change, which was the concept that was predominant back in 2008, and it is not put in terms of a 2° or 1.5° target. One way in which we can understand the Paris agreement is to see it as having revised what dangerous climate change means. Neither the 2009 act nor the new bill has one of those numerical temperature targets at its heart. At the heart of the bill is the idea of avoiding dangerous climate change. Ministers requested advice from the UK Committee on Climate Change on appropriate targets to meet that objective.

Mark Ruskell: Are you clear about the differences between a world that is warming at 2° and a world that is warming at 1.5°, in terms of the impact on the environment, people, communities and nations around the world?

Sara Grainger: Yes, we are sufficiently clear on that and understand the need and purpose of the Paris agreement to limit temperature rise to well below 2°.

Dr Russon: In its original advice on the target levels for the bill, the UKCCC set out two options, which, you may recall, were remaining at 80 per cent for now and going to a stretch target of 90 per cent. The UKCCC's advice on those two options was that remaining at 80 per cent would stay in line with a 2° goal, while the 90 per cent target would be more in line with a goal of 1.5°.

Mark Ruskell: The IPCC report that is coming out in October might paint a very different picture about what is dangerous climate change.

Sara Grainger: It might do. We await that report.

John Scott (Ayr) (Con): How will updating the targets without updating all the activities and duties in the 2009 act produce the best results? Why was increased target setting considered

without also considering what will be required to meet the targets?

Sara Grainger: The scope of the bill is a decision for ministers. Ministers set the scope in light of the Paris agreement and their enthusiasm and commitment to be at the limits of ambition and keeping at the forefront of the global response to climate change. The *raison d'être* of the bill is to increase the target levels.

We have also taken the opportunity to improve elements of the 2009 act that have proved to be particularly problematic, such as the emissions trading system adjustment, which we do every year and which causes no end of confusion, not least among ourselves. We were keen to remove the particularly problematic elements of the act.

09:45

Other than that, there is a strong feeling that the 2009 act is working. The framework that we have in Scotland is achieving a great deal, and Scotland is doing very well at reducing emissions. The proof of the pudding is in the eating: the act is doing its job. The aim of the bill is really just to increase the targets.

The Convener: In relation to Mr Scott's question, it your contention that the climate change plan provides the detail on how we achieve the targets?

Sara Grainger: Yes, very much so—thank you for your question; I was taking a bit too long to get to the point. Beyond our having the knowledge and assurance that the target levels are achievable—at a very substantial push—the details of how we achieve the targets need to be set out in climate change plans, and that will continue to happen. It is in that context that we will think about activities.

The Convener: You said that, in the advice that you take on setting the targets, primacy lies with that of the UKCCC. However, the draft plan was not run past the UKCCC and its advice was not sought on it. Do you see a slight disconnect there?

Sara Grainger: I am not sure that I do, entirely. The 2009 act requires the Scottish ministers to seek advice from the UKCCC on appropriate target levels. Ministers then propose target levels, which are agreed by the Parliament. However, the policies and proposals that are put in place to meet the targets are dealt with under a section of the framework that is slightly distinct, that is, in the strategic climate change plans, which are produced by the Government, scrutinised by the committee and revised accordingly. It is a slightly different process.

The Convener: Yes, but the principle is the same. If the UKCCC is the adviser on one

element, surely it would be reasonable to run the proposals past it. I realise that we have come past that point; I just make the point that, on one hand, you are saying that the UKCCC is terribly important and, on the other, you thought a few months ago that it was not important enough to merit having the plan run past it.

Sara Grainger: I do not agree that the UKCCC is not important enough to merit having the plan run past it; it is more that we see the UKCCC's role slightly differently. The UKCCC has the overarching say on the appropriate target levels, but how targets are delivered and met is a matter for the Scottish ministers.

John Scott: The practical aspects of that will be important. Although the goals that have been achieved thus far are good, some people might argue that they were the low-hanging fruit. It is easy to declare ambitions—we all have ambitions—but the strategic delivery of the ambitions is important and it would be very welcome if the Government were to give advice, particularly to the sectors that most need to get their houses in order, on how ambitions can best be realised.

Has there been a review and evaluation of how other parts of the 2009 act are working? If not, why not?

Sara Grainger: Our focus has been on introducing a bill that raises the ambition of the targets, to meet the Paris agreement, and on correcting or improving elements of the 2009 act that are evidently and demonstrably not functioning. We have not looked at the full scope of the 2009 act, because we consider that it is working well enough.

John Scott: However, you have obviously been reviewing the 2009 act and considering which bits do not work adequately.

If it is the Government's view that the best place to update policies and proposals is in the climate change plans, why did the most recent climate change plan not address, for example, specific policy proposals based on the first year of mandatory public sector reporting and the interaction with the land use strategy, as was suggested in the committee's report on the draft plan?

Sara Grainger: None of us was involved in depth in the development of the plan. It is my understanding that the land use strategy is incorporated into the plan and that the two are intertwined, and that is set out in the plan. I am not sure about the public sector reporting element or what the committee's recommendation was on that, I am afraid. We laid in Parliament the report that is required under the act, setting out how all the recommendations from the committee were

considered and responded to, so that information is available and we will be able to find it and return to you with a fuller answer.

Angus MacDonald (Falkirk East) (SNP): Sections 1 to 4 allow for the creation of a net zero emissions target at a future date, and we look forward to seeing the responses to the consultation on that over the summer. Sections 1 to 4 also update the 2009 act's 2050 target from 80 per cent to 90 per cent. Can you give the committee any examples of international actions or of how the Paris agreement has been translated into domestic law with regard to that, and can you tell us how the Scottish Government is taking account of international best practice?

Sara Grainger: I will endeavour to do that. We have looked a fair amount at international examples of good practice. We have focused on countries, states and regions that we know to be leading and to have particularly good practice. However, we have found the work to be horrendously complicated, and it is difficult to draw comparisons between different countries' actions, commitments and legislations. Countries, states and regions differ in terms of starting points and the assets that are available to them as well as in their legislation.

Trying to understand our own legislation is testing; trying to understand other countries' legislation is exceptionally testing. However, we have put a lot of time and effort into it and we have discussed the matter with officials in several other countries. We have also commissioned work through ClimateXChange at the Edinburgh Centre for Carbon Innovation to look at examples of best practice. Those reports are in the public domain, so we can draw your attention to them.

We have concluded from that work that the existing work—and, even more, the provisions in the bill—means that Scotland will have the most stringent and tightly bound climate change emissions reduction legislation anywhere. We also rank highly in terms of progress. So, although other leading countries have slightly different approaches, ministers have taken the view that the approach that we have in Scotland is working for Scotland. There is reluctance to make changes that would make our legislation more similar to that of other countries for the simple reason that our legislation appears to be working for Scotland and is right for us as a result of the 2009 act, which was agreed unanimously by the Parliament.

Angus MacDonald: That is good to hear. What different actions and behaviour changes are required to attain both the 90 per cent reduction target and the 80 per cent reduction target to which we are currently committed? What scale of behaviour change and technical advancement does each require, and in which sectors?

Sara Grainger: Crikey—that is really quite complicated. I am very happy to set out the work that we have done on exploring the difference between an 80 per cent target and a 90 per cent one, but I am not quite sure that it would answer your question to the level of detail that you are looking for. We have not produced—and could not sensibly produce for the period up to 2050—a plan detailing exactly how we would manage emissions reductions in and across sectors or the precise contents of policies and actions that the Government and other actors would need to put in place.

We know that, in relation to the 90 per cent target, there is no scope for underachievement anywhere—I think that that is the phrase that the UKCCC used. I would phrase it slightly differently and say that we need the maximum level of decarbonisation in every sector to achieve the 90 per cent target. For the reasons that I have covered previously, work on exactly what that means in relation to policies and actions and when they would need to occur would have to be considered in the production of climate change plans.

Given that, I am not sure that my telling the committee what we think will be the difference between 80 and 90 per cent would be particularly helpful. However, I can go on to that if committee members would like me to do so.

The Convener: I think that we would. We would also be interested in understanding whether the decision that was reached on the target was influenced in any way by what we thought people would accept by way of behavioural change—what was achievable with the public in reality. That feeds into consideration of the legislation elsewhere and of what is suitable for other countries' cultures but not for here. Can you give us a wider feel for how you arrived at the target?

Sara Grainger: I can try to. That is an interesting question.

I will start by saying what the UKCCC set out in its advice. The main difference between its central ambition scenario, which would see an 80 per cent target met, and its 90 per cent scenario, which is its high-ambition one, is in the level of the carbon sink from land use, land use change and forestry.

Under an 80 per cent scenario, there is a focus on buildings and industry—and also on aviation and shipping, which are crucial—and there is a little bit of wriggle room in other sectors. Under a 90 per cent scenario, there would be no wriggle room anywhere, although some emissions would remain in aviation and shipping—including international emissions, which are included in our targets but not in those of other countries—and in industry, beyond emission reductions that could be

achieved through efficiency. We would also need to decarbonise buildings completely instead of almost doing so.

We consider that there are three options for going further than that. One option is to purchase international credits to make up the differences between what can be achieved domestically and what cannot be done responsibly, in the view of ministers. The second option is to hope that technology will develop to deliver negative emissions. However, at this stage, experts tell us that that is unlikely to happen at the right pace, rate or scale in the near future. The third way is to introduce policies and proposals that remove emissions completely from industry, aviation, shipping and agriculture, which I have not mentioned before but which is crucial.

When you talk about behaviour change, I am not sure of the distinction between the choices that individuals can make to change their own behaviour and wholesale changes to the economy that would impose changes in behaviour.

However, I think that I am answering your question if I say that it was and remains the view that, at this time, it would not be acceptable to the majority to impose policies that restricted aviation, shipping, agriculture, food production and industry to the levels that would be required to meet a net zero target.

10:00

Claudia Beamish (South Scotland) (Lab): My question is for whoever feels it is most appropriate for them to answer. Can I have a bit more detail about the advances in technology? Sara Grainger said that the second way in which we might go further with the targets is by hoping that technology will deliver further. Can you tell us about the experts who have been consulted? It is obviously very difficult to know what technology will be available beyond 2040.

On the other hand, many stakeholders have said to me that it is important to be aspirational and that we should be determined to send a clear message to researchers, investors and the market about where we are going. Although I was not in the Parliament at the time, unlike my colleague Stewart Stevenson, I understand that the Climate Change (Scotland) Bill was quite aspirational about where we were going.

Sara Grainger: Yes.

Claudia Beamish: I am asking about the experts. Sorry—that was rather long-winded, but I am trying to set the scene around the concerns that people have brought to me about why we are not going further.

Sara Grainger: The reason why we are not going further, even though ministers and the Scottish Government are absolutely clear that we wish to achieve net zero emissions as soon as possible, is that putting a target into legislation that required us to achieve net zero emissions by a specific date could create difficulties if the technology did not arrive at the pace or the scale that was necessary to enable us to achieve that. It may do—some people are very optimistic that the technology will come on stream very soon and that it will be possible to roll it out on an industrial scale. However, others are substantially less optimistic. It would be, in essence, a bet on having the technology available at the scale that was needed.

It could be argued that, by setting out a clear ambition to achieve net zero emissions through a political rather than a legislative commitment—which is similar to what many other countries have done—ministers would be making the aspiration clear and sending a message to investors, researchers and other people who need to be encouraged to develop the technology and the business case for the technology. Putting a target date into legislation that we would absolutely have to meet, regardless of whether the technology had become available, is a different kettle of fish altogether.

The experts were primarily from the Committee on Climate Change, which has the technological expertise as well as all the other expertise. Discussions were also held with colleagues and stakeholders in other parts of the organisation who are involved in those kinds of technological developments.

Claudia Beamish: Sorry—which organisation? I am not sure what you mean by “organisation”.

Sara Grainger: I am not sure that I can answer that question right now, not least because we have had some consultation responses about the matter and I cannot remember whether those consultees agreed to have their names made public in connection with what they said. That is why I am being a little bit cagey about it just now, but I am happy to get back to you later.

The Convener: Could you get back to us when you have checked that out?

Sara Grainger: Yes.

The Convener: Here is the thing: some people would see a contradiction in the argument around technology.

I appreciate your point about you guys not being involved in the climate change plan, but the original plan relies, to a fair extent, on carbon capture and storage technology. We were told that the plan was credible with that technology in it, but

we are now being told that we cannot be more ambitious because we do not have the technologies. Do you see the contradiction that some people see in the approach?

Sara Grainger: Yes, when you put it in that way. If the Cabinet Secretary for Environment, Climate Change and Land Reform were here, she would say that she was criticised a lot for making those comments and for relying on technology, so you could turn that argument around. However, I will not do that, because I am not the cabinet secretary.

It is about the scale and the pace of technology change. It is one thing to expect, to rely on and then to plan for a level of technological development, but it is quite another to think that the scale of that development could be vast and quick enough to achieve a substantially more ambitious target.

The Convener: Thank you. It was useful to get that on the record.

Claudia Beamish wants to come back in. Please be brief, as Mark Ruskell will come in right afterwards.

Claudia Beamish: I have no idea what Mark Ruskell is about to say, but I will come back in only if he does not cover what I want to ask about.

Mark Ruskell: We are all keen to get in on the issue.

Sara Grainger talked about taking “a bet” on technology, but there are bets on the other side, too. If we do not meet our climate change targets or if the science on climate change changes and the situation worsens, we are taking a bet on the future. How do we refocus on technological change?

Back in 1986, which is the same timescale that we are being asked to look forward—that is 32 years ago, and we are looking forward to 2050—we had no idea that the internet was going to be a thing, but here we are today, rolling out broadband strategies, and the internet has completely transformed our world. How do you learn from previous technological changes what conditions, including those related to the market, innovation—particularly university innovation—investment and research, are required for those changes? How do you create the conditions to give us the certainty that we can make the necessary technological changes? What does Government need to do now, even if it does not have all the answers, to create the conditions for those answers to be brought into use?

Back in 1986, we did not have a clue that we would be where we are today. There were technologies that suggested that we might be here, but the exact pathway to delivering the

transformation that the internet has given us today was not clear.

Sara Grainger: Indeed. You are putting me in mind of “Tomorrow’s World”, which I used to watch. When you see repeats, it is remarkable what people thought might become standard technology. Hovercrafts spring to mind.

I really do not think that I can answer your question about the changing landscape. I agree with you completely that technology will develop and the world will change—of course it will. However, the point is that we do not know how and when that will happen or what the implications and the impact of that change will be. Therefore, putting targets into legislation with all those unknowns is complex.

Tom, do you want to come in on the broader issue?

Dr Russon: Yes, I am happy to do so. I cannot remember who mentioned it, but carbon capture and storage is a good example to consider in this context. It is clear, from the CCC’s advice on the bill’s targets, that meeting the targets will not be just a question of carbon capture and storage. We must go beyond that and use bioenergy carbon capture and storage—that is, CCS coupled with the production of biomass to reach negative emissions. Regular carbon capture and storage gets you to reduced emissions, but to get to negative emissions you need to go beyond that approach.

There are two technologically uncertain steps there—the first is getting to functional deployment of CCS and the second is getting to functional deployment of bioenergy CCS. Although Scotland has excellent research in those areas, they are big technologies that will be developed and deployed effectively only on a multinational scale. They are simply beyond the scope of what a small country can do unilaterally. The costs involved in such technologies are very large, as are the research consortia. It is an area in which international partnership working is very important for Scotland, but it is also an area in which we are limited, to an extent, by the pace of development internationally.

As the committee will be aware, one of the key features of the 2009 act that is being carried forward into the bill is the principle that we will keep getting updated advice on all these matters. Technology is a key area in which that updated advice will be most important, along with the climate science that Mark Ruskell spoke about. The bill will require the UK Committee on Climate Change to provide updated advice on all these matters, including on the target levels that follow from that advice, at least every five years.

We acknowledge frankly the validity of the point that the technology is extremely uncertain. The

examples that we have talked through illustrate that. However, every five years seems the right timescale for taking advice and checking on developments. The bill allows for the possibility that, if things happen more rapidly within that five-year timescale, ministers can go back to the UK Committee on Climate Change even sooner, note that some tipping point seems to have been reached around CCS or whatever and say that updated advice is required immediately.

The Convener: Committee colleagues have supplementary questions on slightly different aspects.

Stewart Stevenson: My question is certainly for Calum Webster and perhaps for Mark Eggeling. It relates to an answer that Sarah Grainger gave my colleague John Scott, when she said that the bill is about numbers and reporting, and that that is working satisfactorily. As the minister who took the Climate Change (Scotland) Bill through to becoming an act in 2009, I am not so sure about that. I give as examples Alex Johnstone’s amendment to that bill, to allow discounts on business rates for premises that were upgraded, and Sarah Boyack’s amendment on domestic rates: I do not think that they work terribly well. The bill is about emissions reduction targets,

“to make provision setting targets ... and to make provision about advice, plans and reports in relation to those targets.”

Is the bill amendable in a way that will allow us to amend those previous attempts, which are very worthy but which have not delivered what we hoped they would, and other provisions, helping us put into primary legislation things that would be part of plans in relation to targets? Is it amendable in that way?

Mark Eggeling (Scottish Government): Those matters are ultimately for the Parliament to decide—in that regard, I include the committee’s consideration of stage 2 amendments. There have been exchanges around consideration of the present bill’s scope, but, as I said, that is for the Parliament to decide.

Principally, the bill will amend part 1 of the 2009 act, which is focused on targets, but it will also amend some of the provisions relating to reporting, including the reporting on the climate change plans. The bill’s focus is therefore on the targets that are imposed on Scottish ministers.

The bill is not looking at any delivery measures or at parts of the 2009 act that deal with how we implement and give effect to those targets. There is obviously a suite of existing powers in the 2009 act and there are lots of other powers in other acts to enable provision to be made on the delivery of various targets. However the principle here is that the climate change plans will set out the measures that need to be taken as well as proposals for any

additional measures that need to be taken. The issue can be considered at the time to see whether the powers to do that are already in place or whether anything more is required.

Stewart Stevenson: The 2009 act creates certain powers, and the Parliament could amend it via the mechanism in the bill, subject to the convener and the Presiding Officer allowing that to happen. Is that correct? It is a purely legal question and not one for a long answer.

10:15

Mark Eggeling: We have expressed our view on the scope of the bill. I understand that there are precedents for how that is handled in Parliament.

Stewart Stevenson: We will let the convener worry about that at another date.

The Convener: Thank you, Mr Stevenson.

Claudia Beamish: I have a question about the just transition commission. It is not in the bill but the committee has received a submission from the just transition partnership about it. I have also been in discussion with the Scottish Trades Union Congress and other bodies about it, as other people around the table and beyond no doubt have been.

Although I take the point that Mark Eggeling made about the targets, my clear understanding of the bill is that it is also a governance bill. Can the witnesses explain the reasons why the just transition commission is not in the bill? In the view of many people, giving the commission a legislative status going towards 2050 and beyond would give a clear indication and reassurance to people in affected communities and industries around how the shift will be done, that it will be done fairly and that there will be accountability to Parliament for it.

Sara Grainger: A live conversation is taking place within the Scottish Government about the scope, remit, form and function of the just transition commission. The discussion will be opened up shortly. The current thinking is that it might not be necessary for the commission to be established in statute for it to be able to provide valuable advice to the Scottish ministers about how to ensure a just transition to a low-carbon economy. However, that thinking has not stopped; it remains live and there will be more information in the near future.

Claudia Beamish: What is the reasoning behind it not being considered necessary to establish the commission in statute? To many organisations, trade unions and companies, a legislative basis for the commission would give clarity about arrangements for the future.

Sara Grainger: The purpose of the just transition commission, as was set out in the programme for government, is to provide advice to ministers to help them devise policies and processes to ensure a just transition. It is not evident that a statutory basis is required to establish a commission that is able to provide valuable advice.

Claudia Beamish: It is not required, but it might be valuable.

Richard Lyle (Uddingston and Bellshill) (SNP): Good morning. Among the main themes of the Scottish Government's consultation were: whether the bill should contain provisions to allow for a net zero emissions target to be set at a later date; whether to update the interim target for 2020 contained in the 2009 act from 42 to 56 per cent lower than baseline levels; whether to add further interim targets of 66 per cent by 2030 and 78 per cent by 2040; and whether to update the 2050 target from 80 to 90 per cent lower than baseline levels. In light of that, what scenarios might require changes to the interim targets, and what are the practical implications?

Dr Russon: I will start off with a slightly process-based answer and then go on to some hypothetical scenarios.

As you say, the bill allows for the interim and 2050 target levels to be modified through secondary legislation under the affirmative procedure. The process element of my answer is that a couple of things have to happen before that can happen. The UK Committee on Climate Change has to provide advice on those target levels. As has been touched on previously, it provides that advice with reference to a defined set of target-setting criteria. The list is quite long so I will not try to recount it from memory, but it includes factors such as the concept of a fair and safe total emissions budget over the period to 2050, the best available climate science, technological circumstances, the economic and fiscal circumstances here in Scotland, and impacts on rural and island communities, to name but a few. The list is, as I say, quite lengthy.

The UK Committee on Climate Change provides regular advice on target levels with reference to those criteria. Scottish ministers are then required to have due regard both to the committee's advice and to their own assessments using that same list of criteria. If the view of ministers, upon reflecting on both those things, is that an interim or 2050 target should be modified either upwards or downwards, they can propose that to Parliament. The final decision will be for the Parliament to take.

My apologies for the slightly long preamble but I hope that that is helpful before I get into what

circumstances or scenarios might lead to modification actually happening. In a sense, I hope that that groundwork points us back to the set of target-setting criteria: if circumstances either internationally or here in Scotland change with respect to those criteria, that would be the likely basis upon which a change to the targets could be made.

These are necessarily entirely hypothetical examples, in that I am foreguessing the future, the advice of the Committee on Climate Change and the will of ministers, all of which I should not be foreguessing. However, there are two potential scenarios. Mark Ruskell spoke about the forthcoming scientific report from the Intergovernmental Panel on Climate Change. That report will inevitably update our best understanding of the available climate science, which is one of the target-setting criteria. If that substantially changes the Committee on Climate Change's view as to what Scotland's goals should be, the committee would presumably provide advice to that effect.

A second scenario that I will try to explore in a little bit more detail is the question of how we measure the greenhouse gas emissions that Scotland produces at any given point in time. This is what is often referred to as the greenhouse gas inventory. It is referred to in the bill as "international carbon reporting practice", and it is also one of the target-setting criteria. As members will recall, it is something that is changing all the time. When it changes, it can change the effective level of ambition that is needed to deliver a given target level.

One can imagine future scenarios in which, if that measurement science changes radically and we suddenly find out that Scotland has always been emitting either much greater or much lower levels of emissions than we previously understood, that might form the basis for the UK Committee on Climate Change providing advice that target levels should be modified to keep them in line with the decarbonisation pathway.

Richard Lyle: It sounds to me as though we are going to be changing our target levels every so often. Why is the ability to lower as well as raise targets critical to the operation of the target framework proposed by the Committee on Climate Change, and are we not just playing with figures to satisfy political parties and outside organisations?

Dr Russon: I hope that you will appreciate that I am going to struggle to answer the second part of that question. I genuinely do not think that it is the case that we are playing with figures for the sake of playing with figures. Much as we as officials might enjoy doing that, it is not about that; it is about what is at stake here. These are figures with very real, practical implications on the ground, in

that the targets are the basis on which the climate change plans are produced. The climate change plans must set out to meet those targets, and they contain a whole range of practical, on-the-ground measures that affect everybody's day-to-day lives.

The first part of your question concerned why the CCC advises that the ability to modify targets downwards as well as upwards is essential. That relates directly to the second of the two examples that I gave, which involved the fact that the science around how we measure emissions is changing all the time. The experience that we have had with the 2009 act is that that can change the figures in either direction—we can find out either that we have always had a lot more emissions than we thought or that we have had a lot less than we thought. On a year-to-year basis, which way those changes will go is entirely unpredictable. Control over the changes is almost entirely out of the hands of the Scottish Government, as decisions are made at a UK level, in line with the United Nations guidelines. In crude terms, these are things that happen to us that we have to respond to.

Modifying target levels in response to that is very much a last resort. We definitely would not want to be modifying target levels too often. Clearly, an important function of targets is to provide long-term signalling and, if you keep on adjusting them, that function is undermined. However, if really big changes to our best understanding of the current emissions levels keep on occurring, it might be necessary at some future point to adjust the targets. Because those measurement changes can go in either direction, the issue is entirely policy neutral—at this level, it is purely technocratic. That is why the CCC advice is that it is important to be able to modify the targets both ways.

Mark Ruskell: To what extent is regulatory alignment with the European Union important in that regard? As you know, there are growing calls for a net zero carbon target in the EU. In fact, the European Parliament's lead negotiator on energy recently said that countries that resist the EU-wide proposal on net zero carbon by 2050 will be

"in the same camp as Mr Trump".

There is clearly a political drive from the European Parliament, and the Commission is considering net zero carbon as the ultimate destination. Where does that place Scotland with regard to our policy of regulatory alignment?

Sara Grainger: Partly because of the reasons that Tom Russon gave earlier about multinational action and the development of technologies, what is happening in other countries is incredibly important with regard to how sensible or

achievable it is for Scotland to have one target or another.

The other important issue concerns the risk of carbon leakage. I am sure that you are all aware of what that is, but I will spare anyone the embarrassment of having to ask—I was unaware of what it was for quite a long time. Carbon leakage is when businesses relocate to countries with more lax regulations or lower targets. If one country has a substantially higher target and tougher regulations than surrounding countries, that can have quite a negative economic impact and can affect the availability of jobs and so on. It can also result in products being imported rather than being manufactured in the country. For all those reasons, what is happening in the rest of Europe and the UK—and, indeed, in the rest of the world—is an essential consideration with regard to what target levels in Scotland should be.

Stewart Stevenson: Can you confirm that the plans that we have encompassed in the bill represent a net zero carbon target for 2050 and that the 10 percentage points difference between 90 per cent and 100 per cent relate entirely to the five gases other than carbon, of which the predominant one is methane?

Sara Grainger: That is correct.

The Convener: It is quite important to get that on the record, because there is a misunderstanding about that among the public.

Sara Grainger: There is, so I appreciate the issue being raised. My understanding of the conversation in Europe is that there is not yet an agreed definition of what “net zero” means. When people across the different countries talk about carbon neutrality, it seems to mean very different things—some people use it to mean net zero CO₂ and others use it to mean net zero greenhouse gases. You are right that that is very important, convener.

10:30

The Convener: Credibility and trust in what is out there is very important. To that end, how will changing to percentage targets deliver better scrutiny and improved performance?

Sara Grainger: That is another of Tom Russon’s favourite subjects.

Dr Russon: We see it as one of the key technical improvements in the bill. I beg the committee’s patience in order to provide a tiny bit of background to explain how we have got to this point, which I hope will help. Under the 2009 act, emissions reduction targets are set in two different forms: the 2020 and 2050 targets, which are set as percentage reductions from baselines of 42 per cent and 80 per cent respectively; and the annual

targets, to fill in the gaps between those years, which are set as fixed amounts of emissions and expressed in megatonnes of carbon dioxide equivalent, to the third decimal place.

There are pros and cons that come with both percentage-based and fixed amount of emissions-based targets. It is fair to say that a difficulty that was not foreseen at the time of the 2009 act is the potential for targets in two different forms becoming askew from each other. That misalignment is driven by changes to the measurement science and changes to the greenhouse gas inventory. Such changes affect the achievability of both types of target, but in different ways. In general, the fixed amount targets are much more sensitive to such changes than the percentage-based targets.

One consequence of having two different types of target is that they can become misaligned, which can lead to real difficulties both for us and for stakeholders. At the moment, the clearest example of that is that there are two different targets for 2020 and at different levels it is quite conceivable that Scotland could end up meeting one target and missing the other. That would be very hard to explain and quite counterproductive for credibility, which we all agree is central.

That is quite a long-winded way of saying that one of the key reasons for shifting to the percentage-based targets is to get all the targets in the same form. That is really important. One could ask why that form should be percentages and not fixed amounts, which would equally well address the point that I have just talked through. There are three main reasons why percentages are preferable to fixed amounts. As I said, there are some pros and cons for both. If the committee is interested we can go into those in more detail.

First, in favour of percentages, in general they are more stable in relation to changes in the measurement science. Such changes affect not just current emissions, but emissions going all the way back to the baseline. If you are measuring relative differences from the baselines to the present day, some of the changes will cancel them out.

Secondly, most of us find percentage-based targets to be more transparent. That is ultimately a subjective judgment. Some people prefer to think in terms of fixed amounts of emissions because they find it more intuitive, whereas other people find percentages more intuitive. The vast majority of the respondents to the consultation favoured the percentage target option. I find it easier to relate to 80 per cent or 90 per cent than to 52.392 megatonnes of carbon dioxide equivalent. However, that is a subjective judgment.

Thirdly, using percentage-based targets is the approach that the UK Committee on Climate Change advised that the Government should take. The committee's view is that percentage-based targets are more transparent and more stable.

The Convener: Thank you. It is very useful to get that on record.

I have another layman's question. As I understand it, if we had used percentages, we would have had to have removed an additional 4 megatonnes of greenhouse gases by 2020. Are we going to do that?

Dr Russon: I apologise; I am not sure that I followed the question. Are you asking about the difference between the annual and interim targets for 2020?

The Convener: As I understand it, under the original baseline we would have to have removed 40.717 megatonnes to meet the 42 per cent target. Now we know that we have to remove 44.713 megatonnes. I am asking a daft-laddie question: are we going to do that?

Dr Russon: Yes, we absolutely are. That is the daft-laddie answer. The climate change plans are required to meet the annual targets as well as the interim and 2050 targets. The effect of the misalignment between the two sets of targets that we have is that the annual targets are the harder ones to meet. The extra 4 megatonnes, as you nicely put it, fall between the annual target for 2020, which is harder, and the interim target for 2020, which is relatively a bit easier. The current climate change plan sets out to meet the tougher of the sets of targets—as the previous plans have always done—and by doing that, we of necessity meet and exceed the 42 per cent target.

The Convener: That demands a large improvement in performance—about 10 per cent.

Dr Russon: You are absolutely right.

The Convener: What does that look like? Give me an example of a sector, to illustrate the challenge.

Dr Russon: If my memory serves me correctly, emissions from the building sector are of the order of 4 megatonnes per annum.

The additional 4 megatonnes must be achieved over time—I guess that I am thinking about per annum emissions. However, you are right to say that it is a large amount. That is reflected in the package of policies and proposals in the current and previous climate change plans. The plans do not attempt to separate out policies and proposals and say, "These policies are for this target, and those policies are for that target." That means that I am limited in my ability to give you a nicely packaged answer.

John Scott: Are the building sector and other sectors aware that there is a 10 per cent increase in the target, just like that, as a result of changing a unit of recognition?

Dr Russon: As I said, this is something that we have struggled with. It has been one of the hardest features of the 2009 act to live with, in some ways. You can well imagine the challenges that it gives us as we speak to our colleagues in Government and to stakeholders outside Government.

The position is not quite as bad as it would be if we were saying that sectors suddenly had to make the change. The inventory revisions have been building up over time. The issue brings us back to why it is so important to fix this element of the 2009 act, so that there is a clear basis and all the targets are in the same form, and so that the level of effort that is required from other parts of Government and outside Government is well understood and is stable through time. That has to be the right way to approach policy planning.

Sara Grainger: For up to five years.

Dr Russon: As Sara Grainger suggests, I am perhaps being a bit too bullish in my assessment of how effective the change will be, in that what the UKCCC proposed, which the bill will enact, is that the inventory is fixed for up to five years. Challenges such as we are considering will still arise, and I am afraid that our successors will have to come back to speak to your successors about them, but that will happen not every year but every five years. That gives external actors, in particular, who it is fair to say find all this very opaque, a bit of stability before the issue comes round again.

John Scott: I want to be absolutely clear about this, so forgive me for repeating the question. Are industry and the business sector aware of this creeping increase in the target, as it were? It was news to me when I read the papers, but I presume that others are much better informed than I am—that would certainly not be hard. It seems to me that by changing a unit you have increased the target by 10 per cent, which seems an odd way of doing business.

Dr Russon: I cannot speak to what a whole bunch of external organisations do or do not understand—

John Scott: So you do not know whether they understand this.

Dr Russon: A wide range of stakeholders are involved in the production of and the consultation on climate change plans. Those documents set out clearly the technical changes that have happened. As I have said, the plans ultimately have to set out to meet the more ambitious of the two sets of targets. However, I do not know whether the increase is well understood.

John Scott: I am not reassured that people are aware of the change.

The Convener: I presume that you would accept that that is a perfect example of why all sectors need to carry the load. As a result, when such significant changes occur, not just one or two sectors will be left to deal with them. The committee has highlighted one or two sectors across society that are not being asked to do a great deal. When we see such changes, that really brings home the need for everyone to play their part.

Sara Grainger: I certainly agree that a cross-sectoral approach is necessary to tackle the ambitious targets that we have and the even more ambitious targets that we will have. However, if you are implying—I may be understanding incorrectly what you have said—that all sectors should have the same percentage target, I am not sure that we would agree with that. At that level of detail, it makes quite a lot of sense from my perspective and the perspective of ministers to be able to look across sectors and see what it is reasonable to expect different sectors to do at different points in time, given changes in technology and emerging technology, for example.

The Convener: I was not suggesting that there should be exactly the same percentage for all sectors. However, some sectors could perhaps do more than they currently do. Let us move on.

Finlay Carson (Galloway and West Dumfries) (Con): We have heard about how the Scottish Government has taken advice on future targets, and particularly on percentages. The advice must take into account target-setting criteria. How were the target-setting criteria chosen? Why do they not align more closely with the climate change plan's sectoral approach?

Sara Grainger: The target-setting criteria are given in the 2009 act. I was not around in 2008, so I was not involved in that, but I understand that a set of criteria was consulted on in 2008. I cannot tell members how they were arrived at in the first place in order to consult on them, but I know that a set of criteria was consulted on, that they were reconsidered in light of the consultation exercise, and that they were set out in the bill in 2008 and amended by Parliament. They ended up as they are in the 2009 act. We are carrying the process forward in the bill.

In the consultation that we ran last year for the bill, the only thing that we really looked at related to the first criterion, which is:

“the objective of not exceeding the fair and safe Scottish emissions budget”.

Our thinking internally was that that criterion was no longer particularly necessary in the form that it

was in because of the move to percentage-based targets. To be clear on that point, there was never any suggestion that we should move away from the importance of the concept of a fair and safe Scottish emissions budget—that remained absolutely central—but we did not think that the criterion in that form was necessary any more. However, the consultation responses were quite clear. Environmental stakeholder groups were very clear that they did not want to lose that criterion in that form and that they considered it to be very important. Therefore, the bill that we have introduced makes no change to that.

The bill moves a couple of things around. I can go into detail on quite minor changes that we have made to the wording of some of the criteria, but the answer to the question is that the criteria primarily come from the 2009 act.

Finlay Carson: Throughout the bill, there is mention of the phrase

“as soon as reasonably practicable”,

and of the Scottish Government's proposal to find “achievable” net targets. What does “reasonably practicable” mean in practice?

10:45

Sara Grainger: I can answer the question on “achievable”, and then I will pass over to a colleague to talk about

“as soon as reasonably practicable”.

We will look to the UK Committee on Climate Change to advise us on what is “achievable”. Its current advice, on which the bill is based, is clear and explicit that going beyond a 90 per cent reduction is not feasible and stretches the bounds of credibility, so we interpret that as meaning that a reduction of more than 90 per cent is not achievable. That is what we mean by “achievable”.

Calum Webster (Scottish Government): The term

“as soon as reasonably practicable”

does not have a formal definition in terms of something having to be done by a certain time. Part of the function of the term is that it needs to relate to the context to which it is being applied. The term is used quite extensively in the 2009 act and across a range of Scottish Government legislation. I am looking at Mark Eggeling to confirm that.

Finlay Carson: When you consider what is “reasonably practicable”, what do you take into account?

Calum Webster: It depends on the issue to which the term is being applied. There is a requirement in the 2009 act—which is included in

the bill—that we have to publish advice from the CCC

“as soon as reasonably practicable”.

It would be reasonable to think that we could do that on the day that we receive such advice, which is what has happened in the past.

Some of the other requirements, such as the need to respond to the CCC’s annual progress report, require some judgment to be applied and some information to be gathered. It would be reasonable to expect that that would be done over a longer period—responding to such requirements might take weeks rather than days. My answer is that it depends on the nature of the task in hand.

The Convener: I issue a plea to members and witnesses to consider short, sharp questions and answers, wherever possible, so that we can cover as much ground as possible.

Claudia Beamish: I will follow up on my colleague Finlay Carson’s question about the phrase

“as soon as reasonably practicable”.

Does the bill require the information and advice from the UKCCC, to which you have referred, to be shared through a statement to Parliament, or can it simply be put on the internet or published in some other way as we move forward with the five-year commitment?

Calum Webster: There are no requirements in the bill other than to publish the advice. I believe that the same requirement is in the 2009 act.

Claudia Beamish: It is interesting that in section 5 there are 11 target-setting criteria. One of them, in proposed new section 2B(1)(i) of the 2009 act, refers specifically to “energy”, and proposed new section 2B(1)(e) refers to “economic circumstances”. Under “economic circumstances”, the bill refers to business more broadly. Why is “energy” specifically picked out, rather than agriculture or transport, for example? That seems strange—I will not use the word “arbitrary”, because energy is very important. How were those criteria decided? You said that they were based on the 2009 act, but my understanding is that there are fewer criteria in the 2009 act.

Sara Grainger: The criterion on energy policy is unchanged from the 2009 act—that is where it came from. I cannot tell you whether the Government conceived of it and consulted on it or whether it was added by amendment during the Parliament’s consideration of the Climate Change (Scotland) Bill, but we can endeavour to find that out.

What has been added to the criteria in the 2009 act is the criterion that

“current international carbon reporting practice”

be considered. That relates to the change in the accounting methodology that Tom Russon explained. That is the only substantive change to the criteria in the 2009 act.

Claudia Beamish: Were other heavy emitters such as agriculture and transport considered for inclusion in the criteria in the bill, given that energy was one of the criteria in the 2009 act? If so, why was their inclusion ruled out?

Sara Grainger: We did not look to change the criteria substantially; we accepted the criteria from the 2009 act. We merely made some very minor changes in the light of changes to the accounting framework and in response to stakeholders’ view that the Paris agreement should be more explicitly recognised. We did not conduct a full review of the rest of the criteria in the 2009 act—we accepted those as read.

Claudia Beamish: Do you not think that that sends a message that some sectors that are heavy emitters are more important than others? Are you able to give a view on that?

Sara Grainger: That is certainly not the intended message.

Claudia Beamish: I completely appreciate that. That is not what I am implying.

Stewart Stevenson: This is probably a question for Mark Eggeling. We have virtually nil legislative competence on energy—we have administrative devolution of sections 36 and 37 of the Electricity Act 1989—so we need to be quite cautious about how we legislate in relation to it. Is that a fair characterisation of the situation?

Mark Eggeling: Yes, there are a number of reservations in relation to energy matters, but there are areas of devolved competence, including the promotion of energy efficiency and the like. There are things that can be done within devolved competence in this area, which would, where necessary, be picked up in the climate change plan.

John Scott: I would like to move on to emissions accounting. Could you provide a clear explanation of how emissions accounting is being amended? How is the proposed 20 per cent limit calculated?

Dr Russon: In answering that, I might struggle with the convener’s steer to be brief.

The 2009 act established two primary mechanisms by which what are termed carbon units can be used in emissions accounting. Carbon units are internationally recognised carbon credits that can be bought or sold. They represent a degree of recognised confidence that some

action will be undertaken somewhere to reduce emissions by a specified amount.

The 2009 act provides for two mechanisms by which carbon units can be used to contribute towards meeting the targets for Scotland, the first of which is an adjustment to reflect the operation of the EU emissions trading scheme in Scotland. That happens automatically every year under the current carbon accounting system. The EU ETS operates in Scotland. Companies are the actors in that scheme, under which they report their emissions and, if necessary, buy permits. At the end of each year, an adjustment is applied to Scottish emissions to reflect the operation of the scheme.

The second mechanism is more intuitively clear. It relates to the possibility that the Scottish ministers may purchase international carbon units as a way of offsetting Scotland's total emissions. Under the 2009 act, that mechanism is subject to two limits.

The first is the domestic effort target, which, in effect, means that no more than 20 per cent of the year-on-year reduction in emissions can be met through the purchase of credits by ministers. Secondly, ministers have to set recurrently absolute limits on the maximum amount for which they can use purchased units for a period in advance, which roll forwards by five years each time—it is one of the many five-yearly targets.

To come to your question, the bill would change carbon accounting in two main ways, both of which are intended to improve transparency and simplicity, and would affect both of the existing mechanisms. First, the adjustment that reflects the operation of the EU ETS would be removed and emissions would be reported on the basis of Scottish emissions from all sectors of the economy.

The second change would be that, although the option for ministers to use purchased credits would be retained, a new default limit of zero use of such credits would be established. That would effectively provide a stricter limit than the existing measures. The change reflects this Government's clear commitment not to use purchased credits as a way of meeting targets. That commitment was set out in the recent climate change plan and will apply until at least 2032.

The bill would establish a statutory limit of zero by default. The power would exist to allow that limit to be raised, if future ministers wanted to do that and Parliament agreed to do so through secondary legislation.

That takes us to the final part of your question, which is about the 20 per cent limit. If the limit on the purchase of carbon units were to be raised from zero, it could be raised only up to 20 per cent

of the year-on-year reduction in emissions. How would that figure be calculated? Under the bill, all the annual targets for all future years would be known, which would allow you to work out the year-on-year reduction in emissions that would be required. You take the difference and multiply it by 20 per cent to give the maximum amount of credits that could be used in that given year.

Why a target of 20 per cent rather than 30 or 10 per cent? The level of the current domestic effort target under the 2009 act is set at 20 per cent. In a sense, the new limit provision of a default of zero but up to 20 per cent, if that is desired at some future point, would replace the domestic effort target from the 2009 act and means that the domestic effort target as it stands could not be missed in the future, because the most that could ever be purchased would be 20 per cent. Therefore, by way of rationalisation, the domestic effort target has been removed throughout the bill.

John Scott: Under what circumstances might that power be used, if you do not revert to the default position?

Dr Russon: That is an interesting question. As I have said, this Government does not intend to use credits so, in a sense, we are speculating. In its advice on the bill, the UK Committee on Climate Change clearly advised that limited flexibility to use credits be retained. The scenario that it explored is the possibility of unforeseen changes in economic output year to year and a need to counterbalance the industries, especially those in the industrial sectors, as that economic output changes.

More widely, as with a lot of the measures in the 2009 act and in the bill, we are looking a long way into the future and there is a huge amount of broad uncertainty about international carbon trading and the co-ordination of those efforts. It seemed to us to be prudent to retain the capability to come back to the issue without needing further primary legislation to do so. However, the balance that is being struck is to set out clearly a simple principle for the foreseeable future, which is that there would be no use of carbon units in any form.

John Scott: Would the inventory revisions make targets easier or harder to meet? Would the proposed changes help to ensure greater objectivity, consistency and transparency?

Sara Grainger: Not using international carbon credits makes the targets harder to meet. We have not previously used such credits in Scotland, so that is not a comparison with our past, but with a hypothetical possibility, or potentially with other countries that do use them. All the effort having to be domestic is substantially tougher than its not having to be so.

11:00

John Scott: Will that help objectivity and transparency? Will it become clearer to us all that that is a better way of doing things?

Sara Grainger: Yes. The default scenario being that zero credits will be used is much easier to explain than saying that we will consider every few years whether or not to use credits.

Richard Lyle: By virtue of sections 16, 17 and 18, the bill rationalises the annual report produced under sections 33 and 34 of the 2009 act. In what ways have sections 33 and 34 been rationalised? What has been removed or changed, and for what reason has that been done?

Sara Grainger: That is a very big question on which to be brief. Perhaps Calum Webster can do so.

Calum Webster: I will try to be brief. If the committee will bear with me, I will find the relevant sections of the 2009 act.

The rationale for making those changes has come about through stakeholder requests for alteration of the way in which we have reported on emissions in the past. At the moment, there is a convention that the cabinet secretary makes a statement in June, following publication of the greenhouse gas emissions statistics. That is not a statutory requirement, but there is a requirement in the act that a statement be made by the end of October. There is a lot of crossover between the content of the June statement that follows publication of the statistics and the statutory statement that the act requires to be made in October. That was raised at the conveners group in October 2017. There was a proposal from WWF Scotland, I think, that the contents of and requirements for the October statement be moved wholesale, to be applied following the publication of the statistics in June, and for there to be a statutory report and statement then, followed later in the year by more detailed reports on progress that had been made in the sectors later on.

The changes to sections 33 and 34 of the 2009 act have been made to allow that to happen. They are broadly similar as far as what they do is concerned, but a couple of elements that were contained in the reports have been removed. The first one that I will go into is the requirement to report against electricity-related measures in section 34(4) of the 2009 act. By removing that, we are able to make the statement and produce the report earlier than we would have been otherwise. We discussed that approach with the discussion group that we set up to look at technical elements of the bill. It was content with that proposal, because such issues are reported on under the energy statistics and also annually in relation to the energy strategy. Therefore they are

not being lost; they will just be reported in another form.

Tom Russon has just talked about removal of the domestic effort target, and the reasoning behind that. That has also come out of the requirements to be reported on under section 33, although we have retained in the bill a requirement to report on the percentage of year-on-year reductions that are related to domestic effort, in the event that a future Government should choose to move away from the default position that has been established under the 2009 act.

There have been other minor changes to the criteria to reflect the fact that we have moved from fixed amounts to percentage reductions under the proposals in the bill.

The Convener: I would like a little bit of clarity on that. I clearly have a personal interest in the issue, having raised it at the Conveners Group, and it is terribly important. Courtesy of the bill, will we potentially end up in a situation in which different ministers will give statements indicating the performance in their portfolios?

Sara Grainger: WWF proposed that, in the space created in October by the June statement being made statutory, each relevant minister or cabinet secretary should make a statement to Parliament about progress in their area. We discussed and considered that, but thought that it would be quite unwieldy. I had several discussions with WWF about a different form, whereby reports on progress in each sector would be required to be laid in Parliament, but there would not necessarily have to be a statement by the Scottish ministers.

In legislation, we cannot put a requirement on any particular cabinet secretary or minister; the requirement has to be on the Scottish ministers and how it gets divvied up is up to the First Minister. We were not able to specify that the reports have to come from or be spoken to by particular cabinet secretaries, but the reports have to reflect different chapters in the climate change plan. A suite of reports will be laid in Parliament, and it will be for Parliament and its committees to consider how to make use of them and whether to call different ministers to discuss the reports.

The Convener: There is no requirement for statements to be made.

Sara Grainger: That is correct.

The Convener: That is interesting. Thank you for that.

Let us move on. In terms of recommendations from the Parliament about process, there was considerable discussion about the period that parliamentary committees have for the consideration of draft plans. There was unanimity

on 60 days being completely inadequate and, if I recall correctly, there was some degree of discussion about what a better arrangement might look like, during which there was talk of 120 days, no limit and so on. In the bill, we appear to have reached a point at which the period would be extended to 90 days, only 60 days of which would be parliamentary sitting days. Can you explain the rationale behind the position that has been arrived at?

Calum Webster: Under the 2009 act, the trigger for climate change plans is the making of an order to set an annual target, which, at the moment, must be done at least every five years. The bill does not require the setting of annual targets in the same way because, as Tom Russon said, they are calculated mechanistically in relation to the interim of the 2050 target. That trigger will be lost, but it will be replaced by the requirement to lay a climate change plan at least every five years.

On that basis, we looked at the responses to the consultation, in which we asked specific questions on what the consideration period should be, and we took into account the views of committees when we discussed this with the technical discussion group. The position that we came to for the bill is that, to ensure that the Scottish ministers could meet the requirement in the bill to lay a plan within five years, there should be a defined period for the committee and the Parliament to look at the plan. If that was not there, it might not be possible for the Scottish ministers to meet that requirement.

We came to the minister's view that the extension of the time period in which the Parliament has to consider plans, from 60 days to 90 days, which includes the 60 sitting days, is a good balance between the current arrangements and the calls for the consideration period to be open-ended.

The Convener: I suppose that the only thing to say is that, if recess periods are included in that, we could lose quite a lot of time and momentum in the scrutiny process.

The other aspect is that, as I read it, there is no time limit for the Government to produce, lay or, indeed, finalise its draft plan. I recognise that the last time that the Government produced a plan we asked it to take its time in finalising its draft, so I am not being hypocritical—I just want to be clear on the position.

Sara Grainger: There is a time limit for when the final draft plan has to be laid—it has to be within five years of the previous draft plan. There is a defined period within which that has to be done.

The Convener: But in terms of—

Sara Grainger: There is no requirement for when we get started.

The Convener: It strikes me that, although 90 days is an improvement, I am not convinced that where we have got to is exactly the best place.

Stewart Stevenson: On page 17 of the bill, we see new section 35B, which will be part of the replacement for section 35 of the 2009 act. In relation to the report on the plan, new section 35B(3) states that a report has to be laid by 31 October. Presumably that interacts with laying the plan itself.

Sara Grainger: I am sorry—can you ask that question again?

Stewart Stevenson: I am on page 17 of the bill and looking at new section 35B(3), which is on line 18. It refers back to new section 35B(1), which reads:

“The Scottish Ministers must in each relevant year, lay before the Scottish Parliament a report on each substantive chapter of the most recent climate change plan”.

The plan has been consulted on for two varying lengths of time when the Parliament is sitting. Nonetheless, to some extent, that need to lay the report by 31 October will interact with the 60/90 days. How does it do that?

Sara Grainger: I think that I understand your question.

Stewart Stevenson: I may not understand the question. I am really asking how they interact.

Sara Grainger: New section 35B is about the progress reports against the plan. By each 31 October, the relevant Scottish ministers will be required to report on progress to Parliament against the plan that is the plan at that time. If there is a plan in prep, that one would not be reported against; it would be—

Stewart Stevenson: Do forgive me—let me just intervene. There is no legislative interaction between the two, because 31 October deals with whatever plan is prevailing.

Sara Grainger: Yes.

Stewart Stevenson: In practical terms, is it in the minds of ministers that 31 October and the laying of a draft plan interact in some way? If that is in the ministers' minds, would it be appropriate for us to consider whether the bill as drafted should be tidied up to make it clearer what that interaction is?

Sara Grainger: I cannot comment on what is in the minister's mind. I can confirm that that has not been in our minds, as officials. That is not a conversation that we have had.

Stewart Stevenson: That is fine. We will move on.

The Convener: Let us wrap this up by looking at the finances. The financial memorandum states that

“moving from an 80% to 90% Greenhouse Gas reduction target is estimated to result in an additional system cost of approximately £13 billion over the period 2030-2050”.

There are also other accompanying figures. I would like to understand how robust the methodology is for calculating indirect costs and what the margin for error is within that method. It is not an exact science.

Sara Grainger: It certainly is not. There is a great deal of uncertainty around the cost estimates that are given—they are given as a best indication rather than anything more. The only thing that we can be absolutely certain of is that they will be wrong, but I cannot tell you in which direction.

The Convener: How good a guess is it?

Sara Grainger: That is not something that I can answer. The costs given under the TIMES modelling section, are, quite evidently, from TIMES. To the best of my knowledge, analysts have not attempted to calculate confidence intervals for that. I do not know whether that would be possible or even a sensible thing to do. I am happy to take that away and look into it.

The Convener: In the absence of such detail, it looks like a figure that has been plucked out of thin air. I know that it is not. Is some of the detail publicly available? Can we see it?

11:15

Sara Grainger: I am not sure that I understand.

The Convener: We have a figure here of £13 billion for the estimated system cost over a 20-year period. We are looking for an understanding of how accurate that figure may be, how it was arrived at and what confidence we can have in it. Mr Scott is whispering in my ear, “Can we see the workings?”

Sara Grainger: We could potentially show you the workings of TIMES, but you might be very sorry that you asked.

The Convener: Let us break it down in another way. Presumably, we have an understanding of what things were added together to get £13 billion. What does that look like on a sectoral basis?

Sara Grainger: We definitely cannot answer the question about what it looks like on a sectoral basis. My understanding of TIMES is limited, but I know that it only gives the overall system cost. Any ideas about where those costs might fall

depend on decisions taken by ministers in climate change plans.

The Convener: I am sorry, but I am getting inundated with requests from my colleagues to ask questions—little wonder.

Sara Grainger: I can see that it is a very popular subject.

The Convener: A take away from today is that you need to come back to the committee with as much detail as you can provide, because at the moment it looks pretty roopy.

Mark Ruskell: I found that answer quite staggering. Why produce a figure at all if you cannot justify it? I am interested in all the assumptions behind the £13 billion figure. For example, does TIMES assume a degree of technology reinvestment, as technology comes to an end and there is investment in new technology and capital plant? We need to understand whether those are additional costs to tackling climate change or whether they are costs that are inherent in moving an energy system towards 2050.

Sara Grainger: I understand.

Mark Ruskell: The kind of energy plant that we would have had in 1986, in Longannet, for example, had to get shut and that is a system cost. Would TIMES see that as a massive cost?

Sara Grainger: I am sorry. I have clearly done an exceptionally bad job of explaining where the numbers come from. It is true that they are indications.

Mark Ruskell: They have been put into words in the committee session and we need to understand exactly what the basis for such a figure is when it is thrown up as a cost.

Sara Grainger: I can do a little better, verbally. We came up with that £13 billion figure by running TIMES under the assumptions of the climate change plan for the 80 per cent end target for 2050. We then ran the figures again using the 90 per cent target. We took the systems costs from both and subtracted one from the other to find the difference, which was £13 billion. That is above and beyond the cost that would happen anyway through society continuing to function. It is the additional cost of moving from a target of 80 per cent to one of 90 per cent.

Mark Ruskell: Is it reliant on purchasing credits?

Sara Grainger: No.

The Convener: Did anyone look at the figures for what it would cost if we did not do it?

Sara Grainger: Yes. That is the cost of the climate change plan. We gave you that figure in

the letter that we sent to the committee—I will try to find it. The £13 billion is in addition. If we did not increase the targets but kept them at 80 per cent, the cost would be 2.2 per cent of gross domestic product. We would need to come back to you further on that.

The Convener: I want to get the overall picture. There may be an additional cost of some amount, but there will be an additional cost to the economy if we do not do it.

Sara Grainger: I understand what you mean. You are asking about the additional cost to the economy of not tackling climate change.

The Convener: Yes.

Sara Grainger: We attempted to set that out in the financial memorandum, based on the work that was done for us by ClimateXChange, which looked at the global literature, at the costs of limiting climate change beyond 2° to nearer 1.5°, at the cost of the damage if we do not mitigate, and at the cost of mitigation and adaptation. It was not able to come up with costs for Scotland, but it was able to review average costs for countries and jurisdictions.

The ClimateXChange report is nicely titled—“Landscape review of international assessments of the economic impacts of climate change”. I am surprised that you have not come across it. It sets out the costs as a percentage of GDP, and the upshot is that the cost of not mitigating climate change would probably be more than the cost of mitigating climate change, but that is on the basis of probability, because the estimates of cost depend so much on the likelihood of extreme events, which are an issue of probability.

The Convener: It sounds a pretty scary figure, if it is accurate, but in reality it is not, because we have to do it.

Sara Grainger: It is a big, scary number, but the cost of not tackling climate change would also be a big, scary number. That is the summary.

Stewart Stevenson: Section 19 of the bill replaces section 35 of the 2009 act with a new section 35. Subsection (4) of that new section is a word-for-word replication of section 35(9) of the 2009 act, and subsection (5) of the new section is a word-for-word replication of section 35(10) of the 2009 act. What do they say in relation to the breakdown of costs? The new section 35(4) that is introduced by section 19 of the bill states that the plan must set out

“proposals and policies regarding the respective contributions towards meeting the emissions reduction targets that should be made by—

- (a) energy efficiency,
- (b) energy generation,

- (c) land use, and
- (d) transport.”

That is word for word what is in the 2009 act. New section 35(5) states:

“The plan must also explain how the proposals and policies set out in the plan are expected to affect different sectors of the Scottish economy.”

You appear to have told us that we cannot do that—that we cannot break down the costs according to how they affect different sectors of the economy—or have I misunderstood what I have been hearing?

Sara Grainger: Yes and no. What we cannot do is separate out the costs up to 2050, so there is a difference in what we can say about the plan and what we can say about targets up to 2050.

Stewart Stevenson: Forgive me for intervening, but I want to bring this to a conclusion. Is it the case that that really relates only to the plan?

Sara Grainger: That is correct.

Stewart Stevenson: So it is essentially retrospective rather than prospective.

Sara Grainger: Well, the plans look forward.

Stewart Stevenson: Yes, but as far as the plan goes forward—and we are looking in the first instance at a plan that goes to 2032—we should have the numbers under those separate headings, rather than there being one aggregate number. I do not have the plan to hand, so I cannot answer that question for myself.

Sara Grainger: I am going to say that you must be mistaken because we have not done that and we surely would have done if we were required to. I will need to take that one away.

The Convener: Please come back to us on that, because there will be a lot of interest in that aspect.

Claudia Beamish: I would like to see what you come back with, because I have quite serious concerns about it, especially going between 2040 and 2050. If we do not know what the technology is going to be, I do not understand how we can be putting figures into the air.

John Scott: I have to declare an interest, as I come from a sector where it is all very well just to say that there is a cost of £13 billion, but people would quite like to know the real costs that they are likely to bear. Our economy is reducing in Scotland, as we speak, and you are gaily saying, “Well it might cost businesses £13 billion to carry on doing what they are doing, if we are to deliver on our climate change targets.” A breakdown, sector by sector, would be enormously helpful in giving an indication of the burden that is likely to be placed on each sector by the climate change

proposals. Stewart Stevenson made that point. Are you unable to provide such a breakdown, or are you not prepared to do so?

Sara Grainger: We are simply not able to provide that—

John Scott: Do you not agree that it would be helpful, or do you just think, “Tough”?

Sara Grainger: I am certainly not disagreeing that it would be helpful, if you are telling me that it would be helpful. It is not possible for us to provide—

The Convener: I think that the point is that it is necessary. We need to see the figures, if we are to determine whether the £13 billion figure is credible. There must be figures that add up to £13 billion.

Sara Grainger: We will take the issue back to the analysts who run TIMES and see what we can do. I am really sorry if I have given the impression that I am gaily bandying the figure around. That was certainly not my intention.

John Scott: Not gaily, but without explanation.

Sara Grainger: Well, clearly with a poor explanation, which I will endeavour to correct.

The Convener: I must bring in Richard Lyle, because he has been waiting patiently.

Richard Lyle: Is the £13 billion based on today’s prices or 2050 prices?

Sara Grainger: Today’s prices.

Richard Lyle: What is £13 billion in 2050 prices?

Sara Grainger: I cannot tell you that.

Richard Lyle: It is at least £200 billion, given inflation and so on over the next 30-odd years.

John Scott: Is it fair to say that, in enacting the bill, we would be asking businesses in Scotland to sign a blank cheque, given the unquantifiable cost and burden that is likely to be placed on them? Is that a fair assessment?

Sara Grainger: No, I do not think that it is. Where the costs—

John Scott: How would you define it, then?

Sara Grainger: Where the costs fall will depend on the decisions that ministers make in the production of climate change plans, because it is the plans that will establish how we are to meet the targets. That is where the impact can be considered, in relation to where the costs will fall. We cannot do that for the targets out to 2050.

The Convener: Let us be accurate: the costs will fall on the public sector and individuals, too. They will not fall just on business.

Sara Grainger: In theory, at least, the costs could fall on the public sector, on individuals and households and on businesses. They could fall to one group entirely and not the others, or in any kind of mix.

The Convener: It is a mix of the three groups.

Sara Grainger: Yes.

The Convener: We have covered a lot of ground and I want to draw the discussion to a conclusion. We are particularly interested in the financial element.

Sara Grainger: Understood.

The Convener: You have agreed to come back to us on a number of things, and we look forward to that. Not only would it be helpful to have as much detail as possible on the financial element, I think that such detail is necessary, to be frank.

I thank the witnesses for their time.

11:28

Meeting suspended.

11:32

On resuming—

Biodiversity Targets

The Convener: Agenda item 3 is evidence on Scotland's biodiversity targets. We are joined by Bridget Campbell, director of environment and forestry at the Scottish Government, and Sally Thomas, director of people and nature at Scottish Natural Heritage. I welcome you both and advise you, in case you were not here at the start of the meeting, that I will suspend the meeting for a minute's silence at 12 noon.

I have a question about the international context for progress towards achieving biodiversity targets. I am asking the question not because I am looking for any wriggle room for Scotland, but because I want to know about the context. How are we performing on our biodiversity targets compared with the rest of the globe?

Bridget Campbell (Scottish Government): The big thing internationally is about looking forward and thinking about the next United Nations framework convention on climate change conference of parties in Beijing in 2020, which will probably set even stronger targets. The most recent overview report, which was published in 2014, gave a global progress report against the targets. To be honest, it showed a very mixed picture across the world. If I was going to summarise, I would say that Scotland is further ahead on a few more targets than the global overview or average. For example, Scotland is really ahead in terms of reporting. We are the only country that has produced a full report on the Aichi biodiversity targets. However, that does not make us at all complacent. I take on board what you said, convener, because everybody is struggling with the matter.

To give a bit more context, recently I attended a meeting of officials who deal with nature and biodiversity across the European Union; I went specifically to get an answer to the question that you asked, convener, because I did not have a good sense of it. From that meeting, it was clear to me that the challenges that we are working on in Scotland are similar to those that are being faced in every other EU country. The main theme of the meeting was the challenge that all countries face in raising public awareness of the issue; no country seems to have succeeded completely in convincing the public in general of the importance of biodiversity and the impact of its loss. We have just listened to the evidence session on climate change, and I would say that the state of consciousness on that issue is quite different. For me, that is the central theme that all countries are struggling with.

The Convener: The two things are related: climate change feeds into the loss of biodiversity. The question that flows from that is whether Governments take the issue seriously enough.

Bridget Campbell: Yes, but I think that the big thing that comes out of the report that was published earlier this year on progress against the Aichi targets—the progress was quite mixed, even for Scotland—is that we need to take it more seriously. The reaction that we had within the Scottish Government and from the public bodies that have responsibilities in this area was that we should try to do a bit more about it. Sally Thomas can say a bit more about that.

Sally Thomas (Scottish Natural Heritage): In terms of what we are going to do next?

Bridget Campbell: Yes. At the end of last year, we had a meeting with all the immediately relevant public bodies—lots of public bodies have a biodiversity reporting responsibility, but we wanted to talk to the most local ones, such as the Scottish Environment Protection Agency, Scottish Natural Heritage and so on—to examine each of the areas in which we are not doing as well as we should be with regard to the Aichi projections. We came up with some specific things that we need to do. We are seized of the fact that more effort is required.

The Convener: Finlay Carson wants to make a point on that issue, so I will let him in now.

Finlay Carson: Who is taking responsibility for the implementation of the biodiversity strategy—the Scottish Government or SNH? It is not entirely clear.

Bridget Campbell: Ultimately, it is the responsibility of Scottish ministers and, therefore, the Scottish Government, to deliver the biodiversity strategy, and the Scottish Government is accountable to the Scottish Parliament in that regard. SNH is accountable to Scottish ministers, as a non-departmental public body. Obviously, SNH is the Government's statutory nature conservation adviser, and biodiversity is at the core of much of what it does.

The Government has asked SNH to do a piece of work to lead and co-ordinate all the partners in the public, private and third sector on the delivery of the 2020 strategy and the route map. SNH was closely involved in the development of the strategy and the route map, and it is now leading groups that are co-ordinating delivery. It produces the progress reports on the route map and the statutory three-year report on meeting the Aichi targets. However, it does all that at the request of ministers. There is no doubt that this is the Scottish Government's responsibility.

Finlay Carson: You talked about the additional indicators and the improvements in reporting.

However, does what you say not suggest that the strategy is too focused on process and not focused on where the action needs to be taken in order to deliver better outcomes?

Bridget Campbell: I think that it must have both elements in it. Of course it would be better if we were doing brilliantly across all the different components, and it is true that, in some cases, we are doing better on the more mechanical things. However, I think that the strategy contains lots of ambition and high-level commitments to real progress on biodiversity.

The route map is, essentially, a programme of practical projects that deliver real improvement in biodiversity. There are really good examples in relation to peatland, but there are others, too.

Sally Thomas: I agree that it is important that we have process and governance underpinning what we do. SNH has a comprehensive monitoring process and a series of indicators, and we have a range of governance groups that work with a number of partners across the public sector and the non-governmental organisation community. That is all good and proper, and we need to be able to do that—we have reporting requirements and we need to be able to feed in at the UK level and so on. However, none of us would understate the fact that what we are really trying to do is make progress on the ground. That is our ultimate goal.

There are some excellent examples of work on the ground. Yesterday, we launched the Scottish invasive species initiative, which is a community-based project, jointly funded by the Heritage Lottery Fund and SNH; the project covers around 29,000km² and engages communities with regard to riparian invasives. That is a high priority area, in which we realise that there is a lot of work to be done. We also have peatland action, for which SNH receives money from the Government. We have restored more than 10,000 hectares and there is a commitment to restoring a further 8,000 hectares.

All that is really important work on the ground, on which we need to report. We need to be able to show what we have done and how we have spent the money. A lot of good work is being done across Scotland.

The Convener: Is one of the criticisms that is made not a legitimate criticism? It is said that we pat ourselves on the back for getting more people out to enjoy nature when what matters is ensuring that we have the species for future generations to enjoy. Are we doing the easy stuff while struggling with the difficult stuff?

Sally Thomas: There is a balance. The more that people appreciate and enjoy nature, the more that the societal change that we have seen across

the climate change agenda is likely to come into play. A lot of time and effort is going into individual species projects. For example, I am sure that most of you will have seen the wonderful photographs that Edinburgh Zoo released yesterday of the Scottish wildcat kittens taking their first steps into the outside world. Resource-intensive projects such as the Scottish wildcat project are important to help to bolster populations of rare or endangered species across Scotland.

Mark Ruskell: I want to focus on some of the particular problems that we have with a number of the targets. You will be aware that the headline says that only seven targets out of 20 are on track. Can we drill down a bit into those?

Target B5 is about habitat loss, so let us start there. What is the gap? What needs to happen, particularly with land use management, to turn that target around?

Sally Thomas: Habitat loss is a particularly complex issue, as I am sure you will appreciate. The target is not just related to counting up the number of hectares of habitat that have been lost. There is the relative proportion of habitat that has been restored or, indeed, created. We have a range of restoration works under way that contribute to the target. We are doing a lot of work to more accurately map and assess different habitats and the extent to which they are declining or increasing.

It is fair to say that the work is not without challenges. We recognise those and, through the route map, we recognise woodland restoration and expansion as an area in which there are challenges for us, certainly on the native woodland target. Increased grants for planting rates have been put in place through Forestry Commission Scotland to increase the incentive for landowners to help with woodland planting, which will help us with those targets.

A number of habitats are showing a decrease in their condition rather than their extent. Woodland is another example in which, while the extent of some woodland areas might be maintained, the condition of the habitat is at issue and there is a slightly different range of issues that we need to tackle.

There have also been some real successes. In the freshwater environment, under the pearls in peril project, we have restored freshwater function across 19 rivers in Scotland. Specific projects such as that can do a lot to help us with the habitat restoration target.

Mark Ruskell: However, we are not meeting that target so it is clear that we need a step change. You did not mention agriculture. What work is being done to consider using a future agricultural subsidy system to reverse some of the

catastrophic habitat loss that we have seen since the second world war?

Bridget Campbell: We are starting to think about that. The agriculture champions who are working for Mr Ewing issued their final report recently and they acknowledge that there is a real need to think about how any future funding can contribute to the outcomes that we want. We are in the foothills of doing that. The thinking is just starting now.

Mark Ruskell: When do you think that there will be an outcome to that thinking process?

Bridget Campbell: I think that Mr Ewing has said that he will respond to the agriculture champions later in the year with the Government's position. They have set a good framework of issues that need to be addressed, and the Government should come up with some response to that later in the year.

11:45

Mark Ruskell: Okay. I turn to target B9, which is on the control of invasive species. Sally Thomas touched on that, but is there a disconnect given the scale of the problem? My understanding is that we have one-year challenge funding going into supporting the work. About £2 million is being put into control of rhododendron, for example, yet the potential demand to tackle the problem would be nearer £400 million. Are we running to stand still? What sense is there that we can actually get a grip on some of the long-standing invasive species problems over the next five to 10 years, before they become very costly problems?

Sally Thomas: You make a good point. It is important to get a grip on these problems before they become a huge financial burden. We recognise that early identification and rapid response is perhaps one of the most important things that we need to do. We are developing new information systems that will help us to underpin and inform that rapid response so that we can identify and deal with invasive species before they become larger and more resource-intensive problems.

For example, there is a new plant tracker app that provides for rapid notification across Great Britain, which means that, for the high-alert species—the ones that we know are on the boundaries trying to come in, I suppose, or which are particularly invasive—we can have rapid identification and alerts and work across the country to take action before they take hold.

Mark Ruskell: Are those action plans actually happening at a catchment level? For example, in the Allan Water catchment, the local fisheries trust has been doing a lot of work, but there has not

been money for co-ordination. It has been getting a little bit of cash from the local Tesco supermarket to do the work. That does not really seem to address the need for catchment-wide action. I understand what you say about apps, reporting and all of that, but what happens then? What are the interim targets, if you like, to tackle the problems of invasive species?

Sally Thomas: I do not have the detail of where we are taking catchment-scale approaches, but I will be happy to provide more information on that. SEPA will be very much to the fore in that work, so we can get some further information from it, if that would be helpful.

Mark Ruskell: Okay. My final question is about target C12, which is on preventing species extinction. We have seen some horrific figures on seabirds in relation to climate change, fishing and a range of other pressures, and on other species including waders, upland birds and specialist butterflies. What should the Government be doing to make a step change in those areas? Can we bring some of those species back from the brink?

Sally Thomas: There have been no recorded extinctions in Scotland, but we recognise that some of our species are under threat and there is targeted action for specific species. I mentioned wildcat, but red squirrel is another, and a range of bird species are included. We are developing a priority species indicator so that we can get a better handle on all this.

We need to work with different species in different ways. That is the bottom line, because what is needed for one species will not necessarily work for another. We also need to understand that, for some species, the action that we put in place now will take some time to work through at a population level, so we should not always expect to see swift results. Wildcat is a good example. Focused and targeted action is under way and there is a lot of interest and a lot of volunteers involved in that, but it is a long-term project that will take a number of years to come to fruition.

Some of those actions relate to the management of the land. We very often have to work with individual land managers to look at how we can work through different types of land management that might favour particular species, such as butterflies or other invertebrates.

The picture is mixed, but we are developing a priority species indicator, and we will use it to prioritise which species need targeted action.

Mark Ruskell: Is the voluntary approach working for species that are absolutely dependent on land management in order to bring them back from the brink of extinction?

Sally Thomas: We have a lot of good work under way through the agri-environment climate scheme and its incentives. We have advisers who work directly with land managers on their holdings to identify where specific bits of habitat, connectivity or ecological coherence can benefit specific species on their land. What do you mean by “the voluntary approach”?

Mark Ruskell: I presume that you rely on land managers coming forward to self-identify that they are interested in protecting a certain species or whatever. For those who are not interested, what is the compulsion to do anything? I do not know what percentage of land managers come forward.

Sally Thomas: I see where you are going. I suppose that the flipside of that is targeted and focused projects that SNH or the NGOs might develop in partnership for a particular species or in a particular locality. That is targeted action for a species. If some land managers in the locality choose not to come on board, there is still a project running that will work and that will, we hope, help to persuade the majority in the locality to do that.

The Convener: How do you get on top of best practice and share it? I have seen terrific examples that involve the Forestry Commission Scotland and wildcats in Glen Isla, and the Game and Wildlife Conservation Trust farm that is operated in Deeside and protecting waders. Both projects are very good. How do you pull that knowledge together and encourage others to roll out such practice?

Sally Thomas: SNH runs a series of sharing good practice events. The name is on the tin: they are very much aimed at sharing the good practice and experience of practitioners throughout Scotland, and we use them extensively for a whole range of topics.

We also work with and encourage others, such as the Royal Highland Education Trust and the Soil Association, which does a lot of on-farm work with land managers and uses peer-to-peer work so that farmers talk to other farmers, land managers and foresters about the work that they do on their farms in local areas. A lot of work is going on out there that SNH is directly involved in or helps to support.

The Convener: I want to pick up Mark Ruskell’s point about seabirds, and particularly the horrifying numbers that are coming forward. There are significant problems with birds in Orkney. Global factors are in play and it is clear that climate change is having an impact. What dialogue is SNH or the Scottish Government having with international partners to see what research they have done and what thoughts they have on how we can address that?

Sally Thomas: We work across the global academic community so that we can better understand what is happening to species when they are outwith Scottish waters. The difficulty is that many seabirds come to Scotland for only part of the year and their wintering or primary feeding grounds are outwith Scottish waters, so it is very important that we have that dialogue and seek to understand. A lot of learning about and understanding of the life cycles of some species and where they go to feed or to overwinter is still required.

We certainly have on-going dialogues. That plays into what Bridget Campbell said earlier. We are talking about global targets, and we need to be at the global table and to participate in those discussions, either as part of the UK administrative body that undertakes that work or in a Scottish context. Those conversations are really important.

Claudia Beamish: The convener touched on important concerns to do with seabirds. My question is about the marine environment and coastal areas. Some marine protected areas are active and are being monitored. Is there an assessment of the impact of MPAs?

Sally Thomas: What impact do you mean?

Claudia Beamish: I am talking about the impact on target 6, which is on sustainable management of the marine environment. Sorry—I should have said that.

Sally Thomas: You are right that considerable progress has been made on the MPA network, and that is coupled with progress on harvesting at sustainable levels. For a number of key fish species there is, for example, the implementation of an end to discards. A whole range of activity is leading to healthier fish stocks. I am not quite clear why there is insufficient progress on that target, given the progress that we have made with the MPA network. It may be a timing issue. The report was produced for the end of 2017, and we have made further progress since then.

If you are content, we will seek further advice from Marine Scotland on that.

Claudia Beamish: That would be helpful. You highlighted the ways in which the approach has changed because of MPAs, but it would be useful to know whether there has been any assessment of the specific impacts and whether things are improving in those areas.

I will move on to the second part of my exploration with you of the marine environment, which is on the wider issue of further action that is being taken on MPAs and whether it is focusing on ecological coherence and networks.

Sally Thomas: There is a lot of work across Scotland’s marine environment, including the

development of the national marine plan and work on aquaculture, seaweed harvesting and fisheries strategies, and all of that is helping to focus efforts on sustainable marine management. On the more specific action in MPAs—I was going to say “on the ground”, but I suppose it should be “in the water”—we can again seek further advice from Marine Scotland.

Claudia Beamish: Could that include the broader issues, please?

Sally Thomas: Yes.

Stewart Stevenson: I want to go back to invasive species. Clearly, we have invasive species such as rabbits and hares that the Romans brought and that are now regarded as native species. American crayfish are a huge problem. Most recently, beavers were almost certainly released illegally and deliberately in Tayside, and they are now making the transition to being regarded as a native species. What is the overall policy in determining how we make the transition from something being an invasive species to it being regarded as a protected or quasi-native species?

Bridget Campbell: That is an incredibly good philosophical question, to which I am sorry but—

Stewart Stevenson: Sorry for intervening. I recognise that there is a philosophical point, but there is a genuine and real impact from that probably illegal action in Tayside that we cannot afford to disregard, because of the message that that might send to people on the policy issue. People might start releasing wolves or lynxes or a variety of other things that would cause me and, I suspect, others considerable concern.

Sally Thomas: We have been working with the Scottish beaver management forum on the licensing arrangements to provide guidance and advice to land managers who are experiencing problems with beavers. Is that where you are heading?

Stewart Stevenson: Sorry, but I am not trying to explore the detail of the beaver issue—that is for another time and place. I am asking whether there is a consistent approach in how we regard that transition. We would eliminate every American crayfish in our rivers and lochs if we could—

The Convener: I will suspend the meeting to allow us to observe the minute’s silence.

12:00

Meeting suspended.

12:01

On resuming—

The Convener: Thank you.

Stewart Stevenson: I would like to move the discussion up a level to the more general.

Sally Thomas: Just to clarify, we have the Scottish code on reintroductions and translocations of species, and any legitimate proposals that are made, as opposed to illegal releases, will certainly be evaluated in terms of the process and the considerations under that code. We have a process in place for any proposals that are made. Illegal releases are by definition illegal, and that is a very different matter. We need to consider everything on a case-by-case basis.

Bridget Campbell: To go back to Stewart Stevenson’s deep philosophical point, I note that what we regard as illegal or not illegal reflects cultural views in this country. In the meeting that I mentioned earlier—

John Scott: It is about the law as it stands.

Bridget Campbell: Yes. It was interesting to hear from other countries such as Croatia and Bulgaria. In Bulgaria, they have the bear and the wolf, and in Croatia they have the bear, the wolf and the lynx. They are at a point in their culture where the main issue is not about particular species but about how they pay people for the damage that the animals do. They are in a very different place.

Stewart Stevenson: We need to close off this discussion because we have other things to cover. Evidentially, I know that the fiscal could not get the necessary corroboration to prosecute those who were responsible for the beaver release. Nonetheless, it was prima facie not permitted under the law; it was almost certainly prohibited under the law, because the beavers were originally held under licence in a constrained area, from which they were released.

Bridget Campbell: That is my understanding.

Sally Thomas: Yes.

The Convener: Bridget, at the outset, you referred to the previous discussion about climate change. The public get climate change—they buy into tackling it—and we achieve our targets. What do we need to do to mainstream biodiversity values in the same way and get that public buy-in? Sitting alongside that, what specific actions do the Scottish Government and SNH have in mind to address failure to hit the targets?

Bridget Campbell: On your second question, when Mr Ruskell asked about specific areas where we are failing, Sally Thomas gave some examples of where action has been upped

because it has been clear that, if we carry on the way we are, we will not meet the target.

There is another really good recent example. I think that it has already been mentioned. When it was noticed that the native woodland in a particular part of the Highlands was not flourishing, the Forestry Commission adjusted its grant rate, and that led to more native woodland trees being planted. There are some specific things that we can do.

The environment and economy leaders group, which is the group that brings together all the chief executives of the main relevant bodies, has been trying to think of specific measures in areas in which the targets are failing to be met. That is just one example. We need a programme approach to pin down what the partners could do differently in specific cases.

Coincidentally, a meeting of that group is taking place in Aviemore today, and one of the items on its agenda is how we can do more to get back on track with the Aichi targets that we are not on track to meet. The cabinet secretary has asked SNH to give serious consideration to how it can co-ordinate all those actions. That is work in progress but, in due course, once that has come to the cabinet secretary, I am sure that she will let you know about it, because we are very conscious that we have to do something to make a change in that area.

It might be the case that something like “Blue Planet” is needed. I hear that Sir David Attenborough is planning to make a series of films about biodiversity that will be shown on Netflix, and they are being pushed by WWF. Of course, “Blue Planet” is about biodiversity, too, but there is a great need to gain a shared understanding of the value of biodiversity and the impact of its loss, which has not reached a tipping point.

In a smaller way, we can all play a part in that process. I am sure that the chief executives will be discussing how we can do more on public information, campaigns and so on. We might find that we suddenly reach a tipping point—I really hope that we do. That is what needs to happen. We must reach a point at which not just specialists and experts but the public appreciate why insects matter.

Going back to the nature directors’ meeting, I add that there was a really interesting presentation by the Germans, but they seemed to assume that everyone thought that insects were good whereas, in fact, most people do not know much about most insects. They might mention bumble bees and ladybirds as being important, but not all the insects that are relevant.

The Convener: It has dawned on me that I should have declared an interest at the start of the

discussion. Indeed, every member of the committee might have declared an interest, because I think we are all species champions, with the exception of Mr Stevenson.

Stewart Stevenson: No.

The Convener: He is one, too. That is relevant, because there is a role for parliamentarians to play in championing the cause and raising public awareness of such important issues. I declare an interest in that respect.

Alex Rowley (Mid Scotland and Fife) (Lab): On that point, I am the species champion for the narrow-headed ant. Indeed, I was looking at some at the weekend, up in your neck of the woods.

Is there an education programme on biodiversity? Where are the links with schools on that? Surely that is a key aspect of the engagement process. I will use the example of recycling. I give Fife Council great credit for the fact that it started to have eco-schools in Fife. When it did that, children suddenly started talking to their parents about the importance of recycling.

Bridget Campbell: Yes. Among the issues that the chief executives are discussing today is what initiative could be taken on education. I will try to find a precise description of what they are doing.

Sally Thomas: We know from our work that if we can influence young people, they will go home and seek to influence their parents and their siblings. We do a lot of work through the outdoor learning in nature programme. We work with schools across Scotland to identify how they can use nature to deliver aspects of the curriculum, such as maths and science, and to ensure that they have access to good-quality green space that they can use as part of the school day.

We have a commitment to 100 schools in Scotland’s most disadvantaged communities having easy access to green space. At the moment, we are working through that with local authorities and other partners to ensure that our young people do not just read or learn about interaction with nature, but get out and experience it. If their families are perhaps not able to help them to have that experience, they can do so as part of their formal education.

Bridget Campbell: All the bodies that I mentioned, such as SNH and SEPA, have a part to play in that, as do the national parks. For example, the Cairngorms National Park Authority has been holding the Cairngorms nature big weekend event, which is all about getting lots of local people out into nature, and those from beyond the area. A whole load of different things need to happen, so I am violently agreeing with what Alex Rowley suggested.

The Convener: A number of members want to come in. I hope that it is not to plug the species for which they are champions.

Mark Ruskell: You may be disappointed, convener.

There is an issue about public confidence, particularly in the agencies. I hope that that will be discussed today. I am the species champion for the sea eagle, of which there have been a number of illegal disappearances in Scotland. We all know that those are probably linked to wildlife crime—the evidence points in that direction. SNH's decision to issue a licence for a raven cull in an area in which there have been a number of disappearances of raptors over the years has generated an enormous amount of public concern. People want to know the rationale for that decision, and there are concerns that those who might have been involved in the disappearance of the raptors might also be involved in the licence regime and the trial project. My inbox has been overflowing with messages of concern about that, and it has touched a nerve for many people.

How can agencies maintain public confidence when people have big issues—of which wildlife crime is one—that resonate in their minds and become a central issue in how they define whether Scotland is protecting its biodiversity?

Sally Thomas: I do not think that anyone in this room would do other than abhor the wildlife crime that unfortunately still exists in some parts of the country. In the partnership for action against wildlife crime Scotland, SNH works very closely with Police Scotland to do everything that we can both to bring perpetrators to justice and to seek to educate those who might have different views. I do not want to go into the detail of specific cases, on which a lot has already been said on the public record. However, SNH certainly feels that we need to have a conversation about wildlife management in Scotland. There are big questions—that we perhaps need to unpack collectively—about our environment, our species and how we can co-exist within the land mass of Scotland.

Finlay Carson: Are we getting the balance right? I am concerned that while we spend all our time getting the public on board we might be losing species that are not the sexy species of the month. There has been no progress on 11 targets, and levels are getting worse on five. Public awareness of the sea eagle or Leisler's bat, for which I am the species champion, might be improving, but is the balance shifting from protecting biodiversity to justifying expenditure on it? I am concerned that, while we get the public on board and we open up green spaces around cities and so on, some dung beetle in Sutherland might become extinct because the Government finds it

difficult to justify the expenditure that would be required to protect it.

Bridget Campbell: We think that it is the right balance. We are trying to strike a balance between, on the one hand, education, cultural change and all the awareness raising projects that we have been talking about and, on the other, doing real things with species that are at risk. Earlier, Sally Thomas described some quite sophisticated ways of making sure that we are alerted to such things and are able to take action.

12:15

Sally Thomas: We work closely with various special interest groups and NGOs, which alert us when there are issues with species that are perhaps lesser known—the small species and the ones that we do not see every day. Such groups get involved through our contacts with Scottish Environment LINK, and many are involved in the working groups for the biodiversity strategy. There are many specialist societies for particular species, such as butterflies, which work with us routinely, and we have our antennae out so that we can work with them.

We think that we have got the balance right; I hope that the committee thinks so, too.

The Convener: We have a lot of ground to cover. I will bring in Richard Lyle.

Richard Lyle: Let us turn to the real world and funds for tackling biodiversity loss and conservation. The environmental funders network said in a report that, compared with the rest of the UK, Scotland is at a considerable disadvantage in attracting funding for conservation projects. The network said:

“From 2012 to 2015, private foundation funding for environmental causes in England and Wales amounted to 20 times as much as that available in Scotland. The total amounts were the equivalent of ... £768 per square kilometre in England and Wales versus £70 per square kilometre in Scotland.”

We have talked about targets. To what extent is meeting targets reliant on increasing financial resources? Have a decline in public funding and staff capacity on biodiversity in the Scottish Government and SNH had an impact?

Bridget Campbell: You have covered a great deal of ground. Let me start with your final question. It is quite difficult to say exactly how much public funding is spent on biodiversity; we have not disaggregated that. SNH is doing work at the moment to try to get a better indicator, because that was an Aichi target that we were going away from. We are not clear enough even about how much public money is being spent on biodiversity, and the public sector ought to be able to account—

Richard Lyle: Are you clear about how much private money is being spent?

Bridget Campbell: Well, as you said, the report—it was “Where the Green Grants Went—Scotland: An Analysis of Grants from UK Sources for Environmental Work in Scotland”—is telling us something that we need to do something about.

On the money that goes to SNH, which is one of the main bodies that work on biodiversity in Scotland, I think that SNH thought that it had a good grant and a positive settlement for the current year. In the Scottish Government there have been a number of changes, but we are recruiting new people, to increase the resource on the issue.

The issue that has been pointed out to us about private sector money is a challenge, and we need to think about whether the Government can do something about it. Currently, action is going on in two main areas. First, SNH is working with Heritage Lottery Fund to secure a more strategic approach to giving priority to environmental projects. HLF is a good source of funding. Secondly, SNH and the Scottish Government have pretty good links with businesses, through the Scottish forum on natural capital, which might be a place to which we can take such questions.

Sally Thomas: The work with HLF has been extremely positive. It is about prioritising the bids to the fund that come forward year on year, so that people do not waste resources by bidding against each other, and it is about trying to increase environmental awareness within HLF. We can then seek to work with other major funders, some of which are identified in the report that Richard Lyle mentioned.

It is important to recognise that success is not always just a reflection of the amount of money that is spent. Certainly, some of the work that we have done shows clearly that it is possible to do more for biodiversity in a local context, even with a reduced resource. That might involve, for example, local authorities changing their mowing regimes or the public sector or local authorities changing the composition of planting that is used; that is, rather than plant bedding plants, they could plant pollinator-attractive species or other species of plants. Those seem quite small-scale examples, but they add up and do not necessarily cost additional resource. For many, it is a different way of thinking about the same problem.

Richard Lyle: What can the Scottish Government do to improve links with private funders of environmental work in Scotland? If Scottish Government funding is provided, should it be given for a three to five-year budget rather than a yearly one in order to ensure long-term stability

for staff and the agencies that work on projects that we feel are worth while?

The Convener: Just to add another question, do the witnesses think that there is a role for environmental NGOs in attracting non-governmental funding? Surely they have a message to send out to possible funders. Do you see a job for them in trying to attract that type of finance?

Sally Thomas: I think that there is a role for them. In a number of the major conservation projects in Scotland, the lead partner will be one of the NGOs because they are often best placed to play that role. We certainly do not think that the public sector or SNH needs to be in the lead, and we are happy to be a partner. It often makes sense—for financial and tax reasons, I understand—for an NGO that is a charity to lead financially. We are happy for that to be the case.

Richard Lyle: Again, should those bodies have extended budget periods rather than a yearly one? Should they have three to five-year budget periods in order to give people long-term stability?

Bridget Campbell: I am not sure how far that works at the moment. Sally, do you know?

Sally Thomas: No. We try to give such stability, but SNH is on a one-year settlement and that makes it difficult for us to make that commitment. We obviously cannot commit funds that we are not confident that we have to commit. Project funding is a different matter, because it is often over three to five years and is given for the lifetime of the project.

Richard Lyle: So we should be looking at having extended budget periods. I will leave it there and will not ask you to commit to that, but I am sure that you will go back and tell somebody.

Has any assessment been made of the effect on biodiversity projects of the potential loss of EU funding after the dreaded Brexit?

Bridget Campbell: Yes, at a very high level, but it is not specific to biodiversity. It is clear that the loss of EU funding for all sorts of land uses will potentially have an impact on biodiversity. The level that we are at is that of trying to assess the scale of that rather than pinning down the impacts on biodiversity per se.

The Convener: Thank you. We will move on to John Scott.

John Scott: Biodiversity duty reporting appears not to be in the best place. What action have the Scottish Government and SNH taken since the last round of duty reporting to engage public bodies of all sizes and functions in the duty and in specific actions to improve biodiversity?

Bridget Campbell: I believe that the cabinet secretary gave evidence on that issue to the Public Audit and Post-legislative Scrutiny Committee recently. Sally Thomas might be able to tell you what has been done since the last round.

Sally Thomas: Since the 2015 round, the Scottish Government commissioned an evaluation of the reporting process, public bodies' activities and the content of the reports on what public bodies are actually doing. That revealed a wealth of useful information. As a result, further work to make the process easier for public bodies was undertaken, partly by the contractor, which produced a reporting template, and partly by SNH, which produced a series of detailed guidance using the template and case studies. The guidance aims to help public bodies assess the level of reporting that they need to engage in. It is aimed at small, medium and large public bodies and gives guidance and advice on the activities that they might consider undertaking and reporting on. It aims to put in place a proportionate approach so that, for example, a small public body that has no land holding and which, on the face of it, has very little to do with biodiversity will not be expected to produce a large report.

The other interesting finding of the evaluation of the 2015 round is that the work that public bodies are undertaking and reporting on is meeting all the targets that we are discussing today, with the exception of the financial target. The work that public bodies are undertaking and reporting on is contributing across the board.

John Scott: What bearing do the reduced financial targets have on that reporting capability? I am referring to the E20 target on financial resources.

Sally Thomas: Ms Cunningham was clear at the Public Audit and Post-legislative Scrutiny Committee last week that the Government does not view the reporting itself to be an onerous task. There is an option for public bodies to include that reporting in their current corporate reporting, if they wish to do so. Public bodies are not required to produce a separate report if they do not think that that would be beneficial; for example, they could include it in one of their annual reports.

The Convener: Rather than reporting, is the issue not one of action and mainstreaming across the public bodies? Let me give you a brief example from a local authority. Concerns about the cutting down of trees in an amenity woodland were drawn to the attention of Angus Council—its own rangers were concerned about where that was headed. The council's planning officers came out and determined that because no planning application was in place, the council had no locus. The council walked away and the woodland was

decimated—that is not an exaggeration; the woodland was destroyed, and the situation is the subject of action by Forestry Commission Scotland. The local authority has an important duty, but across its various departments does not seem to understand its responsibilities around biodiversity. I guarantee that that lack of understanding is replicated across Scotland. We have a very long way to go to get to the point where all public bodies understand their role in biodiversity.

Sally Thomas: SNH is currently working with public bodies to develop delivery statements. A delivery statement is a detailed commitment by each organisation that sets out what it plans to do to protect, maintain and enhance biodiversity. The statements flow from the biodiversity strategy. That process helps to embed the thinking into the way in which the organisations conduct their business. The result is a range of hard commitments that the organisation will sign up to in relation to its day-to-day work and how that relates to biodiversity.

Delivery statements are quite resource intensive. We have a number of statements to complete and a larger number that are under way with different public bodies. As yet, we have only one local authority that is interested in completing a delivery statement. As time and resource permit, we would hope to roll those out much further across Scotland.

The Convener: That backs up my point: we have a very long way to go to reach where we need to be in relation to such important issues.

12:30

Claudia Beamish: I have a follow-up question to the convener's question on public bodies. Having been somewhat involved in the development of the climate change reporting duties for the public sector, I wonder whether there has been a similar discussion of the need for, or the value of, a similar mechanism in relation to biodiversity. In that regard, of course, it is important to bear in mind delivery in relation to the Scottish Government, SNH and the appropriate bodies.

Bridget Campbell: I do not think that we have had that discussion yet, but it seems like a good idea to see what can be derived from the progress that we have made with regard to climate change and to try to find ways in which that can be pursued with regard to biodiversity.

There are wider ways of thinking about lessons that can be learned from what has been going on with regard to climate change. One of them concerns the experience of being on the receiving end of the climate change plan. The fact that that

plan was in place made me, as the director responsible, ensure that we were spending money on peatland, on planting trees, on reducing waste and so on. Another broader lesson is that there is value in being absolutely clear about what each player is required to do.

Mark Ruskell: I have a similar question. I am interested in how the two issues can be brought together. It seems that, when they are engaged in place making, councils consider climate and biodiversity together. Therefore, with regard to the adaptation agenda, there might be some benefit in reporting the two issues together.

Bridget Campbell: That is a fair point, and we should consider it.

Sally Thomas: The only note of caution that I sound is that, as Roseanna Cunningham observed two weeks ago, the climate change duty has an annual reporting cycle. If we are identifying resource as an issue in relation to having a three-year reporting cycle for biodiversity, we must weigh up the pros and cons of increasing that requirement.

The Convener: Can you give us an update on where we are with regard to the consideration of a biodiversity strategy for the period after 2020?

Bridget Campbell: We are just starting to think about that—it is starting to be thought about internationally. The 15th meeting of the conference of the parties will take place in Beijing in 2020, and we have asked SNH to think strategically about how we should approach that. That is part of what SNH will be talking about with the other public bodies in Aviemore today. The action to meet the Aichi targets is relevant to the action that is required to meet any more stringent targets. The question is, how do you increase the effort to a suitable point?

Mark Ruskell: Last year, Parliament voted on a cross-party basis to support the establishment of a national ecological network in Scotland. What progress has been made on that?

Sally Thomas: As you are probably aware, last September, a stakeholder event was held to consider what a national ecological network for Scotland might entail. SNH has been asked by the Scottish Government to lead on that and, since then, we have been working with the Government and a number of the NGOs to consider how that might be played out.

We are looking at an approach that seeks to enable opportunities to improve biodiversity and connectivity and which considers the role of the existing network of protected areas, such as our Natura sites.

At present, we are seeking to develop a range of principles and are testing them against a

number of established projects that already deal with connectivity, such as the EcoCo LIFE project, and work is also under way in the central Scotland green network. We plan to do some more work on testing and to come back to the Scottish Government soon with further proposals.

Mark Ruskell: It would be useful if the committee could be kept informed of that.

Will there be action in there in relation to the national planning framework, with regard to the way in which the CSGN is embedded?

Sally Thomas: That is one of the issues that we are working through at the moment.

The Convener: Thank you for your time this morning—it has been useful in informing the committee's thinking. The Public Audit and Post-legislative Scrutiny Committee is also reviewing the role of local government and public bodies with regard to biodiversity.

Subordinate Legislation

Environmental Protection (Microbeads) (Scotland) Regulations 2018 (SSI 2018/162)

12:35

The Convener: The fourth agenda item is a negative instrument. Do members have any comments on the regulations?

Mark Ruskell: I welcome the action that is being taken UK-wide to tackle perhaps one of the easiest forms of microplastic to remove from the production cycle, preventing it from getting into the oceans. Microplastics are a major problem physically because they pass through the food chain, but they also carry chemicals into the food chain, which may affect human health as well as the health of the environment.

It would be useful to get clarity from the Scottish Government about its approach to other forms of microplastic, such as microfibrils from clothing, which are perhaps much harder to remove from the oceans, and to hear the Government's views on how it is addressing the wider issue of the action that is needed to deal with microplastics internationally, in the UK and in Scotland.

Richard Lyle: I was going to make that point, too, and I support Mark Ruskell's comments. We have taken action on cotton buds, plastic straws and now microbeads and plastic waste. It would be interesting to know whether any Government department is looking at the effect of any other consumer goods or components in goods that may affect the environment. We should write to the cabinet secretary to ask that question.

Stewart Stevenson: I have just a tiny observation. I have three products for exfoliation and I found as a result of reading the regulations that one of them has microbeads in it. I dumped it in the bin this morning, which is real action in the Stevenson household. I strongly support the regulations.

The Convener: I hope that the container was not recyclable, Mr Stevenson.

Angus MacDonald: I am pleased that the regulations have been laid, especially when we consider that up to 51 trillion microplastic particles that can be highly damaging when eaten or inhaled by marine life have accumulated in our oceans. The regulations, which will come into force imminently, are welcome. I hope that similar action will be taken to tackle nurdles, which are also an issue, particularly around the Forth estuary.

Claudia Beamish: I will not reiterate the comments that have been made by other

members, which I support, and I support the regulations. If we agree to Richard Lyle's request that we write to the Scottish Government about the wider issues, glitter is one such issue that has been drawn to my attention by the brownies in the Borders. It is another aspect that had not come to my mind until the brownies wrote to me.

John Scott: I am delighted to associate myself with the regulations, which are very welcome. I identify myself with the positive remarks that have been made by other members.

The Convener: Can I take it as read that we do not wish to make any recommendations with regard to the instrument, but that we will write to the Government along the lines that members have raised?

Members indicated agreement.

The Convener: At the committee's next meeting on 26 June, it will hear oral evidence from Scottish Government officials on the register of controlling interests in land. The committee will also consider its work programme and its approach to work on the marine environment, financial scrutiny and the Climate Change (Emissions Reduction Targets) (Scotland) Bill at stage 1. The committee will hold a second meeting next week, when it will hear from the Secretary of State for Environment, Food and Rural Affairs, Michael Gove MP, by videolink.

As agreed earlier, the committee will now move into private session.

12:39

Meeting continued in private until 12:52.

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