TRANSPORT, INFRASTRUCTURE AND CLIMATE CHANGE COMMITTEE

Tuesday 3 February 2009

Session 3

£5.00

Produced and published in Scotland on behalf of the Scottish Parliamentary Corporate Body by RR Donnelley.

CONTENTS

Tuesday 3 February 2009

TRANSPORT, INFRASTRUCTURE AND CLIMATE CHANGE COMMITTEE
5th Meeting 2009, Session 3

CONVENER

*Patrick Harvie (Glasgow) (Green)

DEPUTY CONVENER

*Cathy Peattie (Falkirk East) (Lab)

COMMITTEE MEMBERS

*Rob Gibson (Highlands and Islands) (SNP)
*Charlie Gordon (Glasgow Cathcart) (Lab)
*Alex Johnstone (North East Scotland) (Con)
Alison McInnes (North East Scotland) (LD)
*Des McNulty (Clydebank and Milngavie) (Lab)
*Shirley-Anne Somerville (Lothians) (SNP)

COMMITTEE SUBSTITUTES

Alasdair Allan (Western Isles) (SNP)
Gavin Brown (Lothians) (Con)
David Stewart (Highlands and Islands) (Lab)
Jim Tolson (Dunfermline West) (LD)

*attended

THE FOLLOWING GAVE EVIDENCE:

Richard Dixon (WWF Scotland)
Chris Hegarty (Scottish Catholic International Aid Fund)
Duncan McLaren (Friends of the Earth Scotland)
Gavin McLellan (Christian Aid Scotland)
Judith Robertson (Oxfam in Scotland)
Dave Watson (Unison)

CLERK TO THE COMMITTEE

Steve Farrell

SENIOR ASSISTANT CLERK

Alastair Macfie

ASSISTANT CLERK

Clare O'Neill

LOCATION

Committee Room 1

Scottish Parliament

Transport, Infrastructure and Climate Change Committee

Tuesday 3 February 2009

[THE CONVENER *opened the meeting at 14:00*]

Decision on Taking Business in Private

The Convener (Patrick Harvie): Good afternoon. Welcome to the fifth meeting this year of the Transport, Infrastructure and Climate Change Committee. I remind everyone present that all mobile devices should be switched off. I record apologies from Alison McInnes, who is unable to be with us today.

There are four items on our agenda. Item 1 is a proposal to take business in private. Does the committee agree to take in private both item 4, which is consideration of the draft report on our inquiry into high-speed rail, and any future consideration of that report?

Members *indicated agreement*.

Climate Change (Scotland) Bill: Stage 1

14:01

The Convener: Item 2 is continuation of our scrutiny at stage 1 of the Climate Change (Scotland) Bill. This is our third evidence-taking session on the bill. Today, we will hear from two panels of representatives of the Stop Climate Chaos Coalition. We expect to continue taking evidence on the bill at stage 1 until around March, when we will hear from the Minister for Transport, Infrastructure and Climate Change. In addition, we have issued a call for written evidence, the deadline for which is 27 February.

I welcome the first of our two panels, which comprises Richard Dixon, director of WWF Scotland; Duncan McLaren, chief executive of Friends of the Earth Scotland; and Dave Watson, Scottish organiser for Unison. I gather that the witnesses would like to make some brief opening remarks.

Richard Dixon (WWF Scotland): I will introduce the Stop Climate Chaos Scotland coalition, so that the committee is clear about who we are. Today, you will hear from two panels of witnesses from the coalition. We are made up of 30 organisations that are campaigning together on climate change. Our members include environment groups, two of which are represented here today, development non-governmental organisations, some of which will take part in the next session, faith groups, unions, community councils, student societies, women's organisations and many others. Collectively, we represent supporters in Scotland numbering about 1.5 million.

For more than two years, we have been coming together to think about the key issues and how a Scottish climate bill might look, and to discuss what our collective views should be. Active working groups in the coalition have worked on detailed issues, which we will address when answering members' questions. We have campaigned on those issues for most of the past two years.

As members know, 2009 is a critical year for action on climate change. The global deal negotiations will continue throughout the year, culminating in the Copenhagen meeting in December. In Scotland, we have an opportunity to contribute to that global deal by producing a world-class piece of climate legislation. Our aim is to help the committee and the Parliament to come up with a benchmark piece of legislation that means that the global deal to which everyone signs up at

the end of the year is better than it might otherwise have been.

The Convener: I will begin with a couple of questions about the science. The scientific basis for the Climate Change (Scotland) Bill is the reports of the Intergovernmental Panel on Climate Change and the United Kingdom Committee on Climate Change. Is the Scottish Government using the most relevant and up-to-date scientific information on climate change? If not, where should it look?

Richard Dixon: The IPCC is a big, collective scientific enterprise. It is quite conservative, because its conclusions must be signed off by all the Governments that have signed up to it. When it presents a picture, we can believe that that has a lot of credibility. We can also believe that its reports are quite conservative and that the science that has gone into them was probably a couple of years out of date by the time that they were published, because the process is so long. When the IPCC assessment report first appears—the most recent is the fourth assessment report—it is the authoritative, mass verdict of scientists. However, after it has appeared, other studies might be published that suggest that a particular thing is going wrong more rapidly than we expected.

We need to start with the IPCC report because it is the collective view, but we must also be up to speed with new science that comes along, which might suggest different impacts from those in the IPCC report. For example, it is quite well known that the most recent IPCC report reduced the estimates for what the sea level rise might be in 2100. Since then, a number of studies have suggested—there is now quite a consensus on this within the scientific community—that the estimates should go back up again to a higher set of numbers. The Government's civil servants, those who deal with the science and committee members have a judgment to make about the credibility of individual scientific studies. Pretty much anything that the IPCC says can be taken as credible, but it will be out of date. In taking other studies into consideration, we need to be careful about how we treat what might be an outlier or maverick study.

For the bill, the key thing about the IPCC reports and any other additional studies is what they say that we should do. There has been a quite consistent message: we must reduce emissions rapidly, as the next five to 10 years are important for global reductions; the scale of the reduction required is that we reduce emissions for the whole world by about 50 per cent by 2050; for industrialised countries such as ours, that means that we need to reduce emissions by at least 80 per cent by 2050. That is what the bill is telling us.

On the scale of the emissions reduction that is required by 2050, we are still saying the same sort of thing about the need for early action, on which we are very keen. The most important thing is how quickly everyone's emissions decline. The IPCC agrees on that, but some scientists now say that, actually, 450 parts per million or 400 parts per million might not be quite enough. The outliers now suggest that we need to aim for around 350ppm of carbon dioxide equivalent, so we need to do something more impressive in terms of the global concentration in the atmosphere in 2050.

The bill has in mind the 2° threshold that most scientists have been talking about, which is somewhere between 400ppm and 450ppm. That is still probably where the scientific consensus is. Aiming for that sort of temperature increase and that range of concentrations gives us a reasonable chance of keeping the final temperature rise to a 2° increase. However, some credible outliers are beginning to say that we need to do a bit more than that. By starting off with rapid reductions and the long-term target, the bill is probably about the right thing to pass just now.

Duncan McLaren (Friends of the Earth Scotland): I have two brief points to add.

On a practical note, I am not sure that it would help if the bill specified additional sources of scientific advice. However, the bill could ensure that the advisory body is constituted in such a way that it can access the most up-to-date scientific advice and that it has a remit to transmit that advice to ministers. That could have implications for a number of the high-level targets and mechanisms within the bill, including the 80 per cent target. Members will note that we have called for a reduction of at least 80 per cent. My reading of the climate science as it is moving—in particular, the advice that concentrations will need to be lower—suggests that 80 per cent will be only a staging point in a longer-term transition. The target might need to be achieved earlier than 2050. It ought to be possible within the mechanisms under the bill to bring the target forward or to make it tougher before we reach 2050.

Similarly, if the bill requires ministers to make reference to a safe cumulative budget as well as to a point target—as part of a belt-and-braces approach—that will, by definition, require the advisory body to think about what is safe and fair in the context of the current state of the science. I understand that that is how the UK Committee on Climate Change intends to operate. The UK committee has indicated that, if the science changes, it expects that it will advise budgets for subsequent periods to be significantly tightened. We need to have that capacity in the bill.

Rob Gibson (Highlands and Islands) (SNP): I just want to catch up with your thinking. How can outlying scientific studies do any better, given that, at present, it takes about 20 months to provide the statistics for the IPCC to judge how we are progressing?

Richard Dixon: The issue is that the IPCC process involves about 2,000 scientists. It is a lengthy process that involves a lot of sign-off and peer review. Many of those 2,000 scientists are doing their own research. Even while the IPCC report is in gestation, they might be producing another paper that is more up to date. Even if that takes a year to get through the peer review process before it appears in a credible scientific journal, it is still probably a year more advanced than the IPCC report that has just been published. Important, credible and correct pieces of research can emerge even at the same time as the IPCC report, and certainly just after it, which are worth taking note of.

As Duncan McLaren suggests, part of the advisory body's role must be to help you as parliamentarians and the Scottish Government as the Administration understand which bits of research are significant and worth acting on straight away; which bits have findings that are interesting but that it is worth waiting for confirmation of; and which bits are outliers, which you would not accept only one of. That is how to treat the stuff that comes through.

We expect that sea levels will be higher than the IPCC says; we certainly see that the north polar ice cap is melting much faster than the IPCC suggested. There are quite credible results and there are other outliers that suggest things that it is worth waiting to see whether someone else confirms.

The Convener: You mentioned the figure 2°C, which, according to the bulk of consensus, is tied to 450 to 400 CO_2e parts per million. Is that the definition of "dangerous climate change" that you would use? It has been suggested that that phrase should be somewhere in the text of the bill. Is that how you would define dangerous climate change, or is it more about the impact that climate change has on systems than about the degree of warming?

Richard Dixon: The phrase "avoiding dangerous climate change" comes from the United Nations Framework Convention on Climate Change, to which most nations of the world, including the UK, signed up in 1992. The convention does not use that exact phrase; it has been paraphrased. The figure 2° is the scientific translation of that into something practical.

The World Health Organization says that 150,000 people are dying every year because of climate change, which is an extremely conservative estimate. Those people probably think that climate change is already dangerous. There is a question about what the phrase means.

In trying to interpret that political phrase, the scientists have come up with a reasonable consensus that 2° is about the right figure. The European Union signed up to that in 1996 and the UK signed up to it, too. There is a reasonable consensus that we should be trying to avoid exceeding that. We are heading towards it quite rapidly, so we need to act quite fast if we are really going to stop there. The figure is important.

Scientific studies try to predict what will happen at different degrees. If you look beyond 2°, you start to see some really important things going wrong. You start to see the Amazon rainforest dying back and eventually becoming the Amazon desert, releasing all the carbon that is locked up there and disrupting the water cycle that it regulates. You start to see the big ice caps and ice sheets being really affected.

Two degrees is bad enough and is already dangerous, but we are saying that if we tried hard, the world could stop at 2° and that some of the big things that would go wrong will not go wrong if we stop there. It is a good place to aim for, but that is based on our current understanding. If we want to put something in the bill, we should go back to that phrase "avoiding dangerous climate change" and rely on advice from our advisory body in 2030, 2040 and 2050 about what we think that dangerous climate change is then. We might have become more relaxed and decide that 2.5° is the right figure or we might have become much more nervous and decide on 1.5°.

We also have to translate that number into a concentration of gases in the atmosphere. That science is evolving and we might decide on a different number that corresponds with a good chance of stopping at 2°. As a way of referring in the bill to the global discussion, the safest place to start would be to add something on the fair contribution that we should make to avoiding dangerous climate change. At the moment, we think that that means 2°, but it would be wrong to add in a number, as we may decide on a different number in future.

14:15

Duncan McLaren: The Government should state, either in the long title of the bill or in its objectives for the bill, that it is to play a fair role in preventing dangerous climate change by reducing Scotland's emissions in a sustainable manner. Whenever we hear the shorthand of 2°C, we should understand it to mean that a rise in temperature of no more than 2° is compatible with

preventing dangerous climate change rather than that getting to 2° warmer is a target.

The Convener: I would like to put what we are talking about into the current economic context. The argument has been put that a recession might make it easier in the short term to reduce emissions or for emissions to fall by more than would otherwise be the case but that, instead of putting Scotland on a more ambitious trajectory for the longer term, the recession could undermine the investment that needs to be made in low-carbon infrastructure and make the problem worse. I seek the panel's view on that. Also, given Scotland's current skill base, what is our ability to rise to the challenge?

Dave Watson (Unison): We hope that the recession, or economic downturn, is relatively short lived. Even the most pessimistic of people—and there plenty of those on the television and radio every morning—would admit that the recession will not take the timescale of the bill, which is 2050 and beyond. We have to look at climate change in the context of the longer term and not be too fazed by the immediate economic circumstances.

I would argue against what you suggest. Certainly, the stats might show that there is a downturn in activity during a recession and that we may see a reduction in emissions as a result, but we should see the opportunities as well as the threats from climate change. The opportunities for a country such as Scotland are clear to see. For example, there is a lot of talk at the moment about a green new deal. That offers opportunities for Scotland to address the issues by creating new manufacturing and service opportunities, which will in turn bring new jobs. Importantly, those jobs will be at a higher skill level. We need to start thinking now about the sort of skills that our universities should consider. We need to build those skills into our education plans right down to school level.

Great opportunities will arise, but only if we are ahead of the game. Too often, Scottish Enterprise and others say in reports that 30,000 or 60,000 jobs will be created—indeed, last week, the number was 160,000 jobs. That is fine but, unless we put in place hard plans and real accountability—which is a key part of the discussion that I am sure we will come to—none of that will happen. Our view is that we should look past the short term to the longer term. If we plan now, we can take advantage of the opportunities.

The Convener: Is that happening?

Dave Watson: It is not happening yet. There are a number of reasons for that. In the main, it comes down to the fact that not everyone has signed up to the approach yet. The Government has not set clear targets and not all public bodies have signed up. We see some good initiatives, but it has not all come together. The bill will put in place the framework that ensures that there is at least a fighting chance that that will happen.

Duncan McLaren: One unhappy advantage of a recession is the cuts in emissions that we might see in the first year—or two years, if we are unfortunate—without any effort being made. Obviously, we should not give up on the additional effort but should recognise the need to lift the investment about which the panel spoke at last week's meeting.

Governments are talking right now about directing and stimulating investment. They are putting together the largest fiscal and economic stimulus packages that we have seen—certainly in my lifetime, and long before that. The key question is whether those packages are being targeted at creating future low-carbon economic opportunities or whether they are indiscriminate and do not take any account of whether any growth that is stimulated might be under the conventional high-carbon model. Given that money is short, we must surely be discriminating and targeted. As Dave Watson has pointed out, such an approach will give us an opportunity to provide jobs not only in high-skilled and high-knowledge sectors but in lower-skilled sectors. For example, a Scotland-wide home energy insulation package would provide work for plumbers, builders and carpenters as well as for scientists and energy specialists.

I might have been rather unfair in my paraphrase of Dave Watson's comments.

Cathy Peattie (Falkirk East) (Lab): I am interested in your views on the consultation process for the bill. We have already heard about Stop Climate Chaos Scotland's role in developing the bill, but how do you reach the wider community, win hearts and minds and get round the attitude of "That sounds like a good idea; someone should do it. Not me, though"?

Richard Dixon: The fact that, as you know, the consultation received 21,000 responses from all over the world—indeed, it has been the biggest response ever to any consultation, apart from that on the smoking ban—shows the strength of feeling on this issue. The motivation for many of the people whom we helped to send the Government this message was the link between the Scottish bill and the global process and the fact that, because of the timing, the bill could influence the global deal that will be struck in Copenhagen at the end of the year. That level of response sends a very clear message that large numbers of people both inside and outside Scotland expect the bill to be world leading.

Some interesting issues that the consultation treated in an even-handed and sensible way—for example, consumption targets, which we might well discuss later—have not made it into the final bill. That said, our reading of the process is that, as a standard consultation, it was fairly well done. Of course, that does not mean that it reached every community or was covered in the *Daily Record* on more than half an occasion. There is a bigger job to be done, and we would like the bill to say something more about how we might capture hearts and minds.

All of us in the coalition agree—and, I think, the general feeling is—that in tackling climate change the Government has a very important role in putting in place the right frameworks, the Parliament has an essential role in ensuring that things work and individuals have a very important responsibility to do their part. For example, 40 years ago, no one did what we now call recycling; now a third of the population are quite happy to sort lots of things and either take them somewhere or put them out on the right day. Although the activity can be quite bothersome, people feel good about it; it has become habit, and they are doing the right thing for the environment. If we can make tackling climate change a bit like that, with the Government setting the framework and the targets that drive the big processes and individuals realising that they have to do their bit to make the system work, we will have won.

Duncan McLaren: The bill's provisions can be delivered only if the public are engaged and begin to change their behaviour. However, our experience is that the public often find it difficult to change their behaviour on matters that are out of their control. Such changes can be made not only through the powers proposed in the bill but, particularly, by duties that the bill might put on public bodies. The coalition strongly advocates that a general duty be placed on public bodies to reduce emissions in line with the national target. That would enable and encourage local authorities, health authorities and a range of other public bodies to start thinking about what people who live in their areas or who work for them could do. That would be one of the best ways to trickle down, or perhaps drive down, the impetus for engagement and behaviour change.

Dave Watson: In many ways, this is one of the most important issues that we need to address. We, and a number of other organisations, got involved with Stop Climate Chaos Scotland because, historically, climate change was viewed as something that beardy environmental groups did. I do not have a beard—I am only a trainee eco-warrior, you understand. It was something that green bodies did and no one else. However, we have to realise that we all have to do something about it.

We have not yet got people to come on board; we have not yet achieved the public engagement that was achieved on the issues of drink driving and the smoking ban. The bill will be important in that regard, but only if it drills down that engagement to the local level. For example, I have been encouraged by the hard time that I have been given at schools events. Sometimes when I have done events in schools about workplace greening, I have had a harder time than I ever had on a picket line with disgruntled union members in a dispute. That is how keen some of the responses that we have had are.

From a trade union perspective, I note that two thirds of all greenhouse emissions come from the workplace. If we do not engage people in the workplace, we will not address that issue. That is why we emphasise workplace environment agreements and the role of environment representatives, for example. When we have done that in workplaces, we have found that when we sit down with workers and get them to talk about how they can be greener in their environment, they take it home. Sometimes, they bring their home practice in and say, "We do more at home than our workplace is doing, yet two thirds of all emissions come from the workplace." That is one example of our experience of how we can drill down that engagement and start to set a tone or attitude that will mean that we can make progress on the issue.

Cathy Peattie: I was going to ask about public duties later, but the issue has been raised, so I will ask about it now. I am interested to hear the panel's view of placing duties on public bodies, such as local authorities, education authorities, environmental health and so on. Last week, we heard the word "hopeful" at least five times. The witnesses were hopeful that local authorities and public bodies would do something, but I am not hopeful.

Dave Watson: The coalition's position is very clear. We believe that hope is a wonderful thing, but a bit of statutory action gets things moving.

In my long experience of dealing with public bodies, I know that if you want to move things up the line or get something on to the chief executive's agenda, you do not say, "We hope you'll do it." You say, "You have a statutory duty to do it, and you might be summoned to this or another committee to be quizzed on exactly what you've done." There should be a duty in the primary legislation, but that does not mean that there should not be secondary legislation that might give more detail. It is not good enough for a piece of legislation to say that the Scottish Government may give secondary powers. That is not adequate in any way.

The other reason for building duties into legislation is that we need to start now. If the word used is "may", and there is to be secondary legislation on the subject, we all know that there will be another round of consultation, discussion, and regulations, and it will be two or three years before anything happens. If we put the duty into legislation now, we can get cracking. Many of the consultation responses indicated support for that.

Statutory duties should include a requirement to measure the environmental impact of all decisions that are made by public bodies. There should be emission targets. They might not be the same for every public body because some areas will have a bigger impact than others, but there have to be targets.

There also has to be an annual report from public bodies. We came up with a range of ideas for the annual report. For example, the chief executive and leader of the council should have to have an annual meeting to which each school sends a rep to quiz them. If I have had to do it in the schools, the leader of the council can do it as well. You should watch the way schoolchildren ask really difficult questions. They do not fluff about being polite like we do; they ask direct questions and if they get waffle, they say, "That's waffle. What are you actually doing?" That kind of accountability is very important and it will bring out the lower level rather than some of the higher-level things that are in the bill.

14:30

Cathy Peattie: Does anyone else want to say anything on that?

Duncan McLaren: Dave Watson has said it all.

Shirley-Anne Somerville (Lothians) (SNP): I will bring the panel back to the question of engagement with the public. I agree that it is an important issue for which we have a number of layers of responsibility and that we should examine it as a committee.

Do you think that the bill is one of those pieces of legislation that is so important that Parliament, and all of us, have a responsibility to ensure that we do not use it as a political argument and thereby allow the public to switch off? If we get into that kind of argument, there is a danger that members of the public might say, "Parliament cannot even get a handle on the issue—we should just leave it," without changing their individual behaviour. Do we need to make clear our responsibility to ensure that we deal with the bill in the most sensible way?

Duncan McLaren: It is clear that there is a responsibility to engage in the debate in a way that reflects the science as it is understood and the urgency and reality of the problem. However, I do not believe that Parliament should seek consensus purely for the sake of it. Healthy debate is one of the ways in which we can get the public interested in a topic. If they see that their representatives—who they hope share their views and values—are having a healthy debate about the topic, that will raise the level of public engagement rather than turn the public off.

Dave Watson: I think that we have made quite a lot of progress. The existence of coalitions such as ours illustrates the fact that there are fewer blatant climate change deniers around any more. There is a debate about how we should tactically deal with the issue, and there is also debate within our coalition: we do not agree on all the fine points of detail. However, there is now a clear consensus in Scotland about the key things that need to be done—we have managed to reach clear agreement on those areas and on the practical measures that need to be taken.

I know from talking to people at workplace and school events that we are a long way down that road. People would not be too worried if there was a debate about the detail, as long as Parliament did not get into climate change denial. In fairness, I have heard very few, if any, MSPs getting into that area of debate. We can have a legitimate debate about how we deal with the issue without damaging the overall message that the public has—largely—already got. As Duncan McLaren said earlier, they just need some help to get there.

Richard Dixon: In the message that we are sending to the public, we are suggesting that the bill is a good start and has great potential, both here and internationally, but that there are important details—in relation to targets, aviation and international credits, for example—that still need to be dealt with. That is the arena of debate: we need to tighten up those detailed issues and get them exactly right. It is not that anything is fundamentally wrong. I hope that, in that context, we can have a healthy to and fro, but without challenging the idea that there should, of course, be a climate change bill, which I think all of us agree with.

Des McNulty (Clydebank and Milngavie) (Lab): I will ask a brief supplementary to Shirley-Anne Somerville's question before I move on to my main topic.

Do you think that there should be a public engagement target in the bill, in the same way that there are scientific targets for emissions reductions? Would that route perhaps take the bill even further forward as world-leading legislation?

Dave Watson: It is an interesting idea, but I am a touch sceptical about it. In my long experience of public bodies, any public engagement target that

is created tends to be measured in terms of how many public meetings are held, or how many surveys are sent out. I am more in favour of energising local communities and essentially getting them to set the targets for local politicians and other public bodies. If we get them interested, there will be no limit to the amount of public engagement that will follow.

The bill needs to include a framework that forces public bodies to go out there and enable the communities to give that pressure back. I am a little wary about the fairly artificial targets that I suspect would be involved in public engagement. However, I am open to other ideas—anything that would achieve that public engagement would be a good idea.

Duncan McLaren: There is an interesting idea or concept to be pursued here. I note that David Kennedy told you last week that the UK Committee on Climate Change is going to set what will be, in a sense, performance indicators, which will include such things as the number of renewable energy systems that are installed, the number of electric vehicles that are available and the number of homes that are insulated. With such indicators—they might not be in the bill but they will follow guidance from the advisory body, and there will be a role for the delivery bodies—you might get some engagement with the public. They could say, "Hold on. If 150,000 homes were insulated last year, why wasn't mine?" or, "Mine was one of them. Now I've seen what I can do, I'm telling my colleagues and friends that they can do the same." The practical delivery of the bill may allow for engagement without necessarily specifying a target for talking to X number of people or whatever.

I am not sure whether that was in your mind, but you are right to highlight the fact that we need to engage people in delivery and in behaviour change. That is all well and good, whether it is done through targets, performance indicators or public duties.

Des McNulty: Let us move on to targets. Before we get into the meat of the debate, I have three brief, relatively technical questions. First, do you have any comments on how the net Scottish emissions account has been calculated?

Do you want to come back to that?

Duncan McLaren: Yes.

Des McNulty: My second question is about cumulative emissions. Why are cumulative emissions in the atmosphere considered more important than the amount of greenhouse gases that is emitted annually, and is it technically possible to measure and report on them?

Richard Dixon: On cumulative emissions, the thing that matters to the planet is the amount of greenhouse gases that is in the atmosphere at any one time, which causes climate change. Different gases have different lifetimes in the atmosphere, so some of the gases that were emitted 20 or even 30 years ago are still there, causing an impact. Between now and 2050, we must reduce not just what we emit in any given year, but the totality of the gases, many of which have long lifetimes. That is important. The area under the curve that describes Scotland's emissions will tell us about the total contribution that Scotland is making to the climate change problem around the world.

It is important to think about that total amount, which is why it is important to define the shape of that curve tightly so that no one is allowed to get away with not doing very much in the early days or slacking off somewhere in the middle and leaving it all for someone to catch up with at the end. It is pretty simple to measure cumulative emissions, as we know how much we emit every year. We understand at least a reasonable amount about the lifetime of the gases, so it is also possible to calculate our cumulative impact over the period, or the impact today of gases that we have emitted in previous years and gases that we are emitting at the moment.

We can produce all those numbers, but the key is to ensure that the area under the curve is as small as possible and that the early part of the curve declines sharply. That will show that we are acting early to get ourselves on the right track.

Des McNulty: I will come back to both those questions, but first I will ask my third technical question. Is it feasible to measure and report on emissions that are generated elsewhere as a result of goods and services that are used in Scotland? Are you aware of that approach being taken anywhere else?

Richard Dixon: The approach is possible, but it is much more difficult. In Scotland, we still use plenty of steel—we buy cars and washing machines with steel in them, and we build buildings with steel frames—but we do not make any steel in Scotland any more. Apparently, we are saving 2 million tonnes of CO_2 because we do not make steel here any more; however, somebody else is emitting those 2 million tonnes or more, which is really our CO_2. There is a need for us to capture that information. There are calculations that suggest that a third of all emissions from China result from China making things for the western world. We are always worrying about China, but a third of its emissions are actually ours. We should be worrying about ourselves.

Although it may not be possible to set targets, because it is difficult to be very accurate with the

numbers, we should certainly try to understand our total global impact. WWF Scotland would like the bill to contain provisions on parallel reporting of the impact of our consumption. The reporting of consumption would not have a target, unlike the reporting of production, but every year the minister would tell you not only how many emissions Scotland had produced directly a year or two ago but how many Scotland had been responsible for around the world. We could do terribly well with our nice, sharply declining curve, and we could reach 2050 having produced hardly any emissions at all, but that would be because the Chinese, the Indians and the Taiwanese were doing it all for us. The planet would still be in a disastrous mess.

We need to keep an eye on emissions that result from consumption, and we should be aware of the levers we can use. We should be able to say to people, "Don't forget that that thing you're buying is contributing to Chinese CO_2 emissions. You can do something about that by making a different choice. You can reduce emissions both here and there."

Fortunately, tools exist to calculate the numbers. Two weeks ago, you were told by the bill team that Scotland's ecological footprint is in the national performance indicators and that it is calculated annually. That was a new commitment, and I was glad to hear it; in the past, the footprint has been calculated only every three or four years. The tool used to calculate the ecological footprint considers a number of issues and can give a number for the carbon and greenhouse gas footprint. Data exist on what we buy and on what we export, so it is perfectly possible for us—perhaps with a data lag of two or three years—to report annually on the impact of Scotland's consumption. We would like such parallel reporting to be part of the bill, so that the minister would then give both sets of figures.

Duncan McLaren: May I go back to your first question, Mr McNulty?

Des McNulty: Yes, please do.

Duncan McLaren: I am sorry—for some reason, I dropped the ball when you first asked it.

The net Scottish emissions account raises two or three significant issues. The account includes carbon units that are bought in from overseas, and it places no limits on them. Stop Climate Chaos Scotland would like a fairly tough limit to be placed on the amount of credits that can be purchased from international sources. By placing no limits, the account sets no standards for what sort of credits can be used. That is of grave concern. Research from Stanford University suggests that up to two thirds of clean development mechanism credits may not be additional reductions in emissions. They are very overvalued if you count them on a one-for-one basis.

If I am correct, this is also the place where we decide whether international aviation and shipping emissions should be included in Scotland's account. We advocate that Scotland's share of such emissions should be consistently included in the account.

I am happy to elaborate on any of those points. Those are the issues raised by the net Scottish emissions account approach.

Des McNulty: I will leave the 2050 target and the interim targets for a couple of minutes, because I want to focus on annual targets and pick up on issues that Richard Dixon raised. He said that the next five to 10 years would be the most important. The illustrative emissions track in the technical note provided by the Scottish Government suggests that larger cuts will not happen quickly. What is your view of the Scottish Government's present emissions track?

Richard Dixon: I am sure that Duncan McLaren will add to what I say. In its technical paper, the Government has presented you with six different scenarios but has produced a graph for only one of those scenarios. We have submitted a paper that shows graphs for all six.

The scenario that the Government chose to illustrate is the least ambitious of them all. It assumes that between 2010—when the bill will come into force—and 2020, emissions will reduce at the same rate at which they have been reducing historically since 1990. That is business as usual—doing nothing extra to reduce emissions and simply assuming that things will continue pretty much as they are.

It is clear that such a scenario would not deliver on commitments that the First Minister and the Cabinet Secretary for Finance and Sustainable Growth made not only to do more than business as usual, but to do that from the moment that they took power. It will be interesting to consider what has happened since the Scottish National Party Government came to power. Obviously, we do not have data on that yet, but we will at some point.

The cabinet secretary said that when the SNP came to power, it would not wait until the bill came into force, but would act immediately to put things in train to reduce emissions. Therefore, we should be reducing emissions faster than would happen if it was business as usual. The scenario in question is therefore not good enough. Of course, once the bill comes into force, we all hope that we will move much more quickly. Under the first scenario in the Government's technical note, which would mean business as usual between now and 2020, people would not live up to their commitments, which is not what Scotland needs.

14:45

The other scenarios in the technical note are clearly more interesting. The sixth scenario involves a much quicker reduction in greenhouse gas emissions between now and 2020 of 2.75 per cent a year, which is nearly the 3 per cent that was promised in the SNP's manifesto. Such reductions would pretty much deliver on the UK Committee on Climate Change's intended target of a 42 per cent reduction by 2020, which is why the Government presented that scenario. The Government has shown how things could be done to meet that target, giving possible reduction rates between now and 2020. Ministers clearly suggested that they would be doing more already, and that they would do even more as soon as the bill came into force, but the scenario that they have chosen to illustrate does not deliver on either of those things.

Duncan McLaren: Stop Climate Chaos Scotland is clear that we want the statute to establish that there should be emissions reductions of at least 3 per cent year on year from the beginning, not from 2020. We think that such reductions are necessary to meet the requirement for early action and that they are entirely possible.

Earlier, I spoke about an unforeseen advantage of recession for a couple of years. There is also good evidence from jurisdictions such as New Zealand, Brazil and California that significant emissions reductions in the order of 10 to 15 per cent over periods of two to four years can be achieved by concerted effort when there is a need to save energy because of energy shortages. If we move from recession with an investment package to improve our energy efficiency and reduce demand for energy, annual emissions reductions of 3 per cent or more could be sustained for several years. We would then clearly be in scenarios in which we would be looking at the technological solutions that are coming online.

Last week, it was rightly said in evidence to the committee that emissions reductions follow an S-shaped curve. There is a period at the start when things go slowly and very little is done, a period in the middle when a lot is done, and a period at the end when it becomes hard to make the last bit. We are already between 10 and 20 years into the flat bit at the top of the S shape. Industry has explored solutions and scientists have done the research, so the technologies and solutions that are necessary to move us on to the fast descent part of the curve are generally available or are very nearly available. We are not in 1990, saying, "We've just realised that this is a problem, and it's going to take us 10 years to start to cut emissions by 3 per cent a year." This is 2009, when cutting emissions by 3 per cent a year is entirely feasible. Such cuts are the minimum necessary if we are to give the urgent response to the science that we have all been told about.

The Scottish Government's most robust scenario, which matches the UK Committee on Climate Change's scenario, probably would not contribute what the UK expects. The UK sees Scotland as a renewable energy powerhouse, and Scotland rightly adopted an 80 per cent emissions reduction target when the UK still had a 60 per cent target. The UK reasonably thinks that, proportionately, Scotland will contribute more to the UK's target, not less. If we are to do so, that would clearly push us above even the reduction targets of 2.75 per cent a year and 42 per cent by 2020, perhaps into achieving reductions of as much as 50 per cent by 2020, and certainly into achieving reductions of at least 3 per cent a year.

Des McNulty: I will pursue that in a bit more detail. At one level, there is a clear difference of view, which we can talk about in general terms. The climate change organisations say, "We want a 3 per cent reduction in emissions now. We believe that that can be achieved." The Government has different advice and says that it cannot reach a 3 per cent target until 2019-20 but that it will make its best efforts to reach that point as the years go by.

How can we find out who is right? How can we decide whether you are right to say that the reduction can be achieved immediately or whether the Government is right to accept the advice on which it based its projection that it cannot reach 3 per cent reductions year on year until 2019? How can we get at the scientific correctness, if I may put it that way, of the argument?

Duncan McLaren: The challenge is that it is not just a physical science argument but a social science argument. People make different assessments of how quickly different technologies can penetrate the building stock or the vehicle stock, and you could get modelling done on those by experts of various persuasions. However, the crux of the matter is how much leadership the Government shows by saying, "We know that some of these things might feel uncomfortable, some might be expensive, and some might be politically unpopular." That is a challenging thing for a Government to do, of course, which is why the suggestion of winning cross-party consensus for the principles of the bill is valuable. A Government that does something that is politically unpopular in the short term is unlikely to lose an election as a result, and obviously no one would counsel a political party that it should lose an election, even if that was necessary for the planet and the people in the longer term.

It would be nice to get to the scientific detail, but at the heart of the matter is a cultural question. The suggestions about how we can engage the

public more are therefore critical to whether we will sustain significant emissions reductions year on year.

Richard Dixon: I will clarify a technical point. The bill does not rule out going for reductions of 3 per cent a year between now and 2020 and having 42 or 50 per cent reductions by then. That is possible under the bill, because all that it says is that we must have at least 50 per cent by 2030—we can have considerably more than that if we want to—and that we must have a reduction every year between 2010 and 2020, which could be 0.1 per cent, 3 per cent, or more. In its most ambitious scenario, the Government's technical paper proposes 2.75 per cent. That suggests that it is possible to get close to 3 per cent.

In considering what recommendations to make, the question for the committee is how much you want to constrain the Government and push it to increase the targets in the bill. That might involve increasing the percentage reductions in the early years so that they are higher than just 0.1 per cent, or it could involve introducing an interim target so that we have to move faster in order to reach it. To what extent do you want to put such targets in place so that you know how fast the Government will go?

Under the bill, the Government could do 3 per cent a year and have a nice reduction by 2020, or, as the first scenario suggests, it could do nothing new for 10 years and only start getting serious about 3 per cent reductions in 2020. One of your key challenges is how to constrain things in the early years by suggesting changes to the bill that mean that whoever is in power in that decade has to act more quickly.

Rob Gibson: Duncan McLaren talks about doing things that are good or bad and popular or unpopular with the electorate. It is time to cut to the chase. What actions with which the public can engage will provide the answers to the questions that Des McNulty asked? What things could we do easily in the early period of tackling climate change? Do they involve renewable energy development? I would like concrete answers. Arguing about 2 or 3 per cent is all very well, but the public are mystified.

Duncan McLaren: The easiest way to make significant reductions quickly is by reducing energy consumption. The Sustainable Development Commission has told us that, in households that are provided with an energy display meter, average consumption reductions of 12 per cent are made in the first year. That device costs only a few pounds. Even if meters were installed in only half the building stock, a major reduction would occur in the first year. Such measures are not necessarily unpopular.

It might be unpopular to encourage people to make a similar reduction in their vehicle-related emissions by committing to work from home or to walk or cycle one day a week. Such steps are not impossible or inconceivable, although they would be more difficult to take in some areas than in others. However, that would generally be seen as an imposition. That is what I mean in talking about how far to push the politically unpopular.

The Scottish Government does not control fuel prices, on which even more unpopular decisions could be taken, but it controls the support that is made available for public transport, walking and cycling. It also controls support for improving the building stock, and the speed at which we make those improvements, so that people can reduce their domestic or workplace energy consumption.

Renewable energy is an additional element that is developing at a remarkable and positive pace. The industry tells us that that could be accelerated. I ask colleagues to add to that.

Richard Dixon: In its 500-page report to the UK Government on how to head for a 42 per cent reduction, the UK Committee on Climate Change picked out energy efficiency improvements in homes and commercial buildings and in industry, the transport sector, the decarbonisation of the power sector and doing more on heat. We are doing something in all those areas, so that is not rocket science; it is more of the same and some new measures. Some of that is techno-fix—the Committee on Climate Change comes from quite a technical-fix perspective, so it does not say much about how to help people change their behaviour, although it will do more work on that. However, in all those sectors, we can see the potential.

Duncan McLaren mentioned an example of energy efficiency in homes and how people can change their behaviour simply by having more information. We want to do big things with power stations but, like Rob Gibson, people can do something with microrenewables in their homes. In the transport sector, behaviour changes would make a big difference. If someone who commuted to work by car five days a week stopped commuting on one day a week by working from home or shared a car for one day, they would reduce their emissions by 20 per cent through just one action, their quality of life would probably be rather better and their employer might get better work from them. Simple activities can produce reasonably big reductions, in addition to the technical stuff that we need to do.

Dave Watson: We have a programme of workplace greening. That is not just theoretical; it involves a course and a range of measures that we suggest that people can take. We train our environmental reps to raise such issues with employers. Most actions require not a clever piece

of technology, but behavioural changes by people, as Richard Dixon said. Many measures could be done quickly in the public sector. When we talked about the budget, we gave examples of how the public sector could lead the way, through stopping some of the crazier relocations, dealing with travelling from the home to the office and taking an awful lot of recycling and energy measures. Those examples would also roll out into the home. All those activities would provide an initial quick hit.

I will turn the question around a little. Another issue is public credibility. To be frank, the public are not much impressed by Governments and politicians who set targets for 2050. We all know that the political cycle is about four years and does not last until 2050. It is therefore important to set earlier, more realistic targets that are achievable and which show a political willingness to make the required changes. If politicians put their reputations on the line in that way, it would be reasonable to expect the public to make the required changes as well.

15:00

Rob Gibson: But we have one hand tied behind our back in trying to deal with such matters through the bill. For example, it would have been easy for the UK Climate Change Act 2008 to say that all motor vehicles would have to do 100 miles to the gallon. It could have made that change, which would have been a win-win situation for many people. However, we cannot do that, and you expect us to do techno-fixes that are only a small part of the process. Should we say to the UK Committee on Climate Change that we must have answers from the UK about certain matters to make it easier for us to take certain actions?

Richard Dixon: That is certainly part of what you need to do, but you should remember that the bill sensibly proposes that the targets for each year are set with the help of advice from the advisory body, whether that is the UK Committee on Climate Change or a new Scottish version of that. Such a group of experts will think "Well, the EU is doing this on vehicle efficiency, the UK Treasury is doing that on the price of fuel and the Scottish Government is doing this on building bridges"—or not building certain bridges—"so this is what we think is possible over the next few years in reducing emissions from transport," to take one sector as an example.

You will therefore have advice from experts who say, "Oh, it's terribly possible to do 4 per cent next year," or, "It's quite difficult to do any more than your 3 per cent next year." You will get that kind of advice and intelligence, which will be gathered from all the other policy levers. Almost everything that produces climate change emissions has policy levers that are outside Scotland, from the EU influence on cows' farts to influences from elsewhere on vehicle efficiency.

The Convener: I thought that the other end of the cow was the problem.

Richard Dixon: It is both ends.

Des McNulty: In their answers, the witnesses have pointed to a disjunction between the strength of the levers in the Climate Change (Scotland) Bill and the expectations around it and the policy cycle that the current Government has or which the Parliament might have in its next session. Perhaps we need to consider that.

The other point that Richard Dixon raised is about the gap under the curve. The bill proposes annual point-in-time targets rather than the five-year carbon budget approach of the UK Climate Change Act 2008. The witnesses seem to suggest that we need to focus on cumulative emissions because they have a real impact on global climate change. How can we focus on the area under the curve rather than on points on the curve and get sensible consistency into the process?

Duncan McLaren: Our suggestion is that, at a practical level, the cumulative budget approach can reinforce an annual-targets approach. A minimum target of at least 3 per cent a year would be set, targets would continue to be set in batches, and the advice from the advisory body and the duties placed on ministers in formulating the targets would have regard to the cumulative budget.

We have argued strongly for 3 per cent annual reductions from the beginning because—certainly in my analysis and, I think, that of others—we will meet a safe and fair cumulative budget target only if we make rapid early progress. Clearly, a 3 per cent cut this year reduces the base for all subsequent years, so it has the biggest effect on the cumulative budget of any annual 3 per cent cut during the whole process. The longer we leave it before we start to make significant cuts, the harder it will be to get anywhere near a safe and fair cumulative budget. We therefore think that the annual-targets approach and the cumulative budget approach can work in synergy.

Richard Dixon: The big picture is made up of two things: how quickly we get moving at the start and the total area under the curve. The mechanism by which we focus is annual targets based on those considerations. Annual targets are a sensible way to let us know what will happen each year and will enable us to report sensibly—to say how we are doing and whether we need to make up for a failure—but the big picture is what they add up to over 50 years.

Des McNulty: The bill does not provide for formal banking and borrowing between reporting

years, although it allows the Scottish ministers to produce a plan to compensate in future years if annual targets are not achieved. Do you have any views on that?

Duncan McLaren: I have a suspicion that, although the bill does not explicitly provide for banking and borrowing, there is in effect a banking mechanism in the provisions for setting up carbon accounts. Under section 18, I think, the Scottish ministers could buy credits one year and not use them that year but hold them in the bank to use against future years. It is a relatively small banking mechanism, but I think that it exists.

Banking and borrowing are not necessary. We support the proposal that the Scottish ministers should produce a remedial action plan and that, in the event of failure, the plan should involve new and additional measures. We would not be satisfied with ministers saying—to paraphrase rather cruelly—"What we did last year was fine. It just didn't work but it will this year." I think that the Westminster legislation uses the phrase "new or additional measures"; it is worth learning that lesson.

Des McNulty: If we are to ensure that the area under the curve is as small as possible, we need to consider interim targets to force the process. What kind of interim target would be appropriate? Are you content with the 2030 figure that the bill suggests? How should the interim target be constituted as an alternative?

Duncan McLaren: That has been a topic of some debate within Stop Climate Chaos Scotland. There is a view that specifying annual targets throughout the process is better than having interim targets, but we have agreed that we need a view on the interim target, and our view is clear and strong. To set an interim target for as late as 2030 is not appropriate because of the urgent need for action in the short term and because it is different from the date set by most other developed nations and blocks of nations—which have defined targets for 2020—and so is not comparable. Moreover, the level of ambition in the target is too low. Our conclusion is that, ideally, the bill should have an interim target of a 50 per cent reduction in emissions by 2020.

Richard Dixon: Since the bill was drafted, the UK Committee on Climate Change has produced its advice and proposed a target of 42 per cent by 2020 for the whole of the UK. As Duncan McLaren suggests, the UK Government expects Scotland to do more, the aspiration of ministers appeared to be for Scotland to do more and, because of our natural resources—we have lots of renewables—we have the ability to do more. That is why a 50 per cent reduction by 2020 looks like the target that we should set.

We would like the bill to specify a reduction of at least 3 per cent every year from the start. Of course, if it said "at least 3 per cent", we would get only 3 per cent every year unless we imposed some other constraints. If we said not only that we must make an annual reduction of at least 3 per cent but that, by 2020, we must reach the 50 per cent target, we would force the reduction at some point during the first decade to go slightly faster than 3 per cent per year.

Des McNulty: I want to challenge you a wee bit. You have consistently said that the bill is ambitious—as indeed it is, by international standards—but the bill is end loaded, with big changes envisaged from 2020 onwards. I am not sure whether a 50 per cent reduction by 2020 is feasible, but it is clear to me that a properly ambitious target is one that relates to the period between now and 2020 or 2025. To some extent, 2050 is politically irrelevant because it is so far in the future. Why are the organisations in the Stop Climate Chaos Scotland not saying that we should be properly ambitious and focus on what will happen in the next 15 years?

Richard Dixon: We are doing that by suggesting that there should be a tough target for 2020 and that, if we are to meet that target, we must move quickly in the first decade after the bill is passed.

If we reduce emissions at a rate of 3 per cent a year from 2010, as the SNP promised to do in its manifesto, we will achieve a 43 per cent reduction or thereabouts by 2020. Therefore, if the Government of the day delivers on its manifesto promise, it will achieve just more than what the UK Climate Change Committee is asking the UK to achieve in its toughest scenario. We have heard ministers commit to doing more than the UK is doing, and the target of a 50 per cent reduction by 2020 would drive down emissions in Scotland more quickly than a reduction of 3 per cent a year.

Des McNulty: As you said, the scenario that the Government currently proposes involves relatively restricted change between now and 2019. We cannot have it both ways: I will be happy if you are saying that by 2020 or thereabouts we need to have equalled or beaten—if that is feasible—the percentage reductions in the UK Government's toughest scenario, but I do not know whether that is what you are calling for or whether you think that such reductions are deliverable. That is what we need to know.

Duncan McLaren: I am sorry, but I wonder what you heard that gave you any other impression. Yes, we are calling for emissions reductions of at least 3 per cent a year in the first decade; yes, we are calling for a minimum reduction of 50 per cent by 2020; and yes, we think that all that is feasible for the reasons that we have set out, which include

Scotland's advantages in delivering greater reductions on the grand scale through renewable energy and on the micro scale through interventions based on household energy efficiency and so on.

Des McNulty: Perhaps I have not made myself clear. You seem to be saying both that this is a great bill—it is fine—and that it does not deliver the objectives that you seek. I want to fill in the gap.

Duncan McLaren: I think that I know how the misunderstanding has arisen. We are saying that the principles and framework of the bill and its provisions for setting targets are okay—indeed, they are world leading in some ways—but that, if our approach is to be truly world leading, a number of things must change.

First, the level of ambition in the early years must change. Secondly, there must be a statutory limit on how much of that ambition can be deflected into buying international credits. Thirdly, the bill must from the outset include the international aviation and shipping emissions for which we are responsible. Each of those three changes would send a message to other nations that are coming up with plans for legislation and the Copenhagen climate summit. Such an approach would put us ahead of the international curve and make the bill truly world leading. That is our ambition—I think that my colleagues agree.

Richard Dixon: Yes.

The Convener: We must move on. If we are to allow time to question our second panel of witnesses, I must ask members and witnesses to be as brief as possible.

Shirley-Anne Somerville: The annual targets have to be set in bulk, and the first batch of targets will cover the period from 2010 to 2019. When they are published, you will be able to calculate a target for 2020. Is there enough in the bill to enable you to look at what will be happening in 2020 and to develop your policies and critique from that?

15:15

Richard Dixon: I would look at the issue the other way around. If we set a 2020 target, the advisory body will have a point to aim at when it sets the first decade of targets, as it will know what it must hit or exceed by 2020. However, if there is no such target under the bill—if we can have any figure for emissions as long as they are a bit lower than today's—the advisory body will be able to flail about with any combination of reductions as long as the figure for a given year is slightly lower than that for the previous year.

If we set a target for 2020, the advisory body will know where it is going. It will then be able decide whether progress is a bit slow and a bigger reduction is needed to reach that target, whether there are things that we can do straight away or whether, because the recession has helped to reduce emissions sharply, we can cruise for a bit. If we set a figure for 2020, we will define exactly where we are going and the advisory body will give advice based on that.

We are keen to have such a number because it will enable us to know how much Scotland has to do—it may be an easy start or a tough start, but we will know where we will be in a decade's time. A 2020 figure would signal to the rest of the world that we think that we can equal or better the performance of the UK or that we do not think that we can do as well as the UK. Regardless of whether we get the number only after annual targets have been set or whether it is set in the bill, people will look at it when deciding whether Scotland is doing something interesting or is not doing quite as well as it should.

Rob Gibson: Friends of the Earth Scotland is sympathetic to the idea of including central targets in legislation, but the bill contains no central targets. Last week, Professor Pete Smith stated:

"Having separate sectoral targets at the beginning would be unnecessarily cumbersome and reduce the policy levers' flexibility to influence different sectors at different times."—[*Official Report*, *Transport, Infrastructure and Climate Change Committee*, 27 January 2009; c 1371.]

How do you respond to that comment?

Duncan McLaren: I will try to be brief. There is some truth in what the professor said, but there is also a lot of truth in the concern that has motivated us to call for sectoral targets in the past. In some sectors, there may be great technical potential that is being overly constrained by worries about the sector's political viability or public popularity, and if we are to meet the ambitious long and mid-term targets that we advocate, action close to the technical limits will be needed in all sectors.

We are not arguing that there should be highly detailed, specified sector targets—that is not the general position of SCCS—but no one at this end of the table would disagree that all sectors must play their role and that the bill must include measures, targets, duties or other enabled powers to ensure that that happens. The bill includes such powers for the waste and energy efficiency sectors but not for the transport sector.

Rob Gibson: Does the coalition have a view on land use and greenhouse gas emissions? The issue is being addressed by other committees, but are there general points that you think must be borne in mind?

Richard Dixon: Land use is a key issue in Scotland. We have a large land area for our population and a lot of peaty soils—much more carbon is locked up in our soils than in the rest of the UK. There is a statistic that suggests that the peat in Scotland contains more carbon than all the trees, bushes and leafy things in the whole of the UK, so it is important. If we treat it badly and it releases carbon and methane, there will be a problem. There has been some activity on land use—for example, the agriculture sector has a forum that is looking at climate change and agriculture—but it is clear that a lot more can be done. The UK Committee on Climate Change will look into that.

Our land and the carbon that it holds are one of the key assets that Scotland has. In future, we may find that farmers, foresters and other land users are paid through a European or even a global scheme to do or not do certain things to their land because that helps to lock up carbon or, in some cases, even hold extra carbon. We may find that one of our chief assets and ways of making money from Scotland's land is the action that we take to safeguard carbon, so it is clear that we must start early to think about what we can do and what we are not doing. Land use is an important area, but it is one in which we already know some of the answers.

Rob Gibson: Okay. I just wanted to get that on the record.

I will move quickly on to international credits, on which the Scottish Government does not intend to prescribe a limit. What are the positives and negatives of having such a limit? By and large, the Government hopes to meet climate change targets through our own efforts.

Duncan McLaren: It is clearly right to have the ambition of dealing with climate change emissions reduction largely domestically. As a witness put it to you at last week's meeting, by 2050 no one will have any spare credits to sell, so we need to plan for a world in which emissions reductions are made domestically.

The big advantage of having a set limit is that it would ensure that we directed investment to and encouraged investment in those technologies and sectors that could help us to make emissions reductions domestically, which would mean that we could be one of the countries that could sell those technologies and that expertise, rather than one that subsequently had to import them.

Perhaps the key reason for having a statutory limit is the accountability that it would provide. If there were no statutory limit and just an aspiration, a decade from now the minister of the day could not be brought up in front of the committee's successor and held to account in the same way that he or she could be if there were a statutory duty. For those reasons, Stop Climate Chaos Scotland calls for a statutory effort target, whereby 80 per cent of the emissions reduction effort must be achieved domestically—in other words, not through the purchase of international credits.

Rob Gibson: Thanks. I will leave it at that just now.

Shirley-Anne Somerville: I will move on to international aviation and shipping. The Scottish Government has given assurances that international aviation and shipping will be included in the Scottish targets. What approach could be taken to formalise that position?

Richard Dixon: International aviation and shipping is probably the area in which the bill, when it becomes an act, could be most world leading and most influential in Copenhagen. The target of reducing emissions by 80 per cent by 2050 is the same as the UK's, now that it has caught up. The UK has quite an ambitious short-term target of reducing emissions by 42 per cent by 2020; if we do better than that, it will be quite important. A limit on international credits would be quite important, too, but perhaps what is most important is that we do the right thing on aviation and shipping.

We very much welcome the ministerial commitment, which the bill team repeated to the committee two weeks ago, that ministers will ensure that the order is passed in time, so that when the bill comes into force, emissions from international aviation and shipping are included in the targets and the reporting right from the start. That is great, but why do we need a separate order? The bill team's logic is that things need to be set up in that way so that when the international methodology for doing such calculations changes, we will have the power to make alterations, but the bill has had in it from the start provisions that are accompanied by a power to change them. For example, it sets out which greenhouse gases are included from the start and gives ministers the power to include different gases if it is decided that there are other important gases. It would send a clearer message to the international community if the bill were amended to say that international aviation and shipping emissions will be included in the targets and the reporting right from the start, and that ministers will have the power to adjust the way in which those emissions are calculated, on the basis of advice from experts, when the need arises. We are happy that there is a ministerial commitment, but we would be much happier if the bill stated that those emissions were to be included from the start.

One other technical issue, which was touched on last week by David Kennedy of the Committee on Climate Change, concerns the impact beyond

the simple CO_2 that comes from aeroplanes. Because aeroplanes fly at high altitude, they have more impact than they would have if they were sitting on the ground and producing the same emissions. He talked about radiative forcing or multiplier factors that should be applied. At the moment, in the figures that the Government has presented to you, it is not applying any multiplier. The UK Government often uses a multiplier of about 2. The message that you heard from David Kennedy was that nobody really knows the number; we know only that it is not 1—it is more than 1. He said that, when it works on aviation emissions, the Committee on Climate Change uses a multiplier of between 2 and 4.

So, although aviation is a reasonably small contributor to our emissions today—about 3.5 per cent of emissions from Scotland come from international aviation—we are underestimating it if we do not use a multiplier to reflect the extra impact of forming clouds and producing gases at high level. That technical issue is not covered in the bill or in the technical papers that you have received from the Government.

Duncan McLaren: The disaggregated figures for the UK are available, so we know Scotland's share of aviation and shipping emissions under the methodology that is currently used for reporting in the Kyoto process as a memo item. So, the data are technically available and can be provided. Having those figures within the targets would also encourage actions to be taken in Scotland, perhaps through the national planning framework, to reduce aviation emissions.

Shirley-Anne Somerville: You say that data on aviation emissions are available, but there is more of a debate about how we can measure emissions from shipping and their impact. Do you have any comments on that?

Duncan McLaren: The data on shipping are not as good as those on aviation because, whereas most airliners that land in Scotland will refuel in Scotland, a ship tends not to have to refuel whenever it comes into port. The current methodology for aviation, although not perfect, captures a reasonable reflection. The current methodology for shipping is not as accurate, but it is the best place to start because it is the one that is shared internationally. A new methodology for shipping is urgently needed, but that is not in itself a reason to avoid setting up the methodology to begin with.

Richard Dixon: If everyone in the world did what we propose to do on shipping—which is to record the fuel that is put on ships—we would cover all the fuel that was put on ships everywhere, so we would capture everything. Although the methodology is not great—it does not really reflect our true impact—it would help to capture everything. It is a good place to start, given that we have those data.

There are international discussions in the International Maritime Organisation and there are UK discussions with the Chamber of Shipping about how we can do something more sophisticated. A range of options has been produced, but the favoured one is to look at the goods that we buy that come in a container by ship and to attribute some CO_2 to each of them. If that is a more sophisticated methodology that attributes the CO_2 to countries in a more accurate way, that is great. However, the IMO has been trying for 10 years to come up with a methodology.

So, let us do something here that will be ground breaking and not bad. Then, when the international community catches up, we will go with its methodology.

The Convener: I want to pick up on the issue of the multiplier in relation to aviation emissions. You say that everyone agrees that the multiplier is not 1—I assume that you mean that it is greater than 1, not less than 1—and that the UK uses 1.9 or whatever as a cautious estimate. Would it be reasonable for the bill to require the regulations incorporating international aviation to specify a multiplier? Is there another estimate of what it ought to be?

15:30

Richard Dixon: That would be helpful. Clearly, aviation and shipping could simply be included in the bill. The Government would say at some point how it will deal with those sectors and would have the power to change what it decided whenever it felt like doing so. In that case, there would be no obligation to include the multiplier correctly. If you were to put into the bill something that said that the Government was required to take advice on the multiplier from the advisory body, that would force the issue sufficiently that it would have to explain why it was not using 2 if everyone else thought that it should be 2.

There is a lot of scientific work going on in this area, because it is a live international discussion. As I said, the Government down south has been using 1.9 consistently for about two years. When the Intergovernmental Panel on Climate Change first raised the issue, it said that the multiplier should be somewhere between 2 and 4, which means that the Government is using something at the lower end of the IPCC's range. As we go along, we will probably get a more refined number. However, it certainly will not be 1—it might be closer to 2 or, possibly, a bit bigger. If we were to go for 2, we would be using the best available science. However, as you suggest, there should be an obligation on the Government to take the

best scientific advice and implement it in any methodology that it uses to report and set targets.

Charlie Gordon (Glasgow Cathcart) (Lab): The committee has heard evidence that the Scottish Government has not formally asked the UK Committee on Climate Change for advice on developing the bill. Do you have any views on whether it should have?

Richard Dixon: Via the internet, I watched your session with David Kennedy of the Committee on Climate Change and I was surprised that it had not been consulted. However, I was also surprised that, when the members of that committee were asked what they were going to do for Scotland, they talked about money and said things like, "We might need more resources for that," and, "We'll see what resources allow." I did not think that it was a terribly generous presentation. Some work needs to be done in that regard.

The UK act set up the Committee on Climate Change in a fashion that provides for the Scottish Government to contribute some money and formally ask for things. Formally asking for something is quite a big deal, as it involves getting something back for the money that has been put in. When the Government says that it has not asked questions formally, that is quite different from saying that it has not met members of the panel for a chat or exchanged e-mails—as we know, that sort of contact is happening.

Clearly, the UK committee is doing extremely useful work. The picture that it has generated of where the UK stands on issues such as the scale of targets, the ways in which we might meet those targets and the budgets that have been set for the two initial periods is important, but, as David Kennedy admitted to you, the chapter in the 500-page report that examined the devolved areas was a little preliminary—I think that that was his description of it, although someone in an earlier question-and-answer session was a little ruder about it and described it as being quite sketchy.

If the UK committee is to be useful to us, it needs to do a lot of work to understand Scotland and ensure that the statistics that it uses are more specifically Scottish rather than being just 10 per cent of some UK number. A lot of work must be done to ensure that that relationship will work, but I have no doubt that, even if we set up a Scottish body rather than staying in the UK body, the UK committee will still be an important body to talk to.

I will ask Dave Watson to talk about our preference with regard to whether there should be a Scottish body or a UK body.

Charlie Gordon: Yes, go on, Dave—answer my next question before I ask it.

Dave Watson: I always do that, Charlie—I have almost made a career out of it.

The answers that you got from the UK committee, to which Richard Dixon referred, highlight the problem of relying solely on the UK committee. Our view is that we need a distinctive body in Scotland. It should work constructively with the UK committee rather than being a competing committee; it should be a commission, if for no other reason than to differentiate between it and your committee; and it should report to Parliament, not the Government.

We were not impressed by the answers that you received last week on the issue of the establishment of a non-departmental public body, not only because we are supposed to be reducing the number of such bodies but because I have never met an executive or chair of an NDPB who offered fearless criticism of any Government of any colour at any time, which is what we want the commission to do. NDPBs are under ministerial direction and, if they say something a bit naughty, the civil servants get on the phone and say, "Why are you doing that?" As that happens under all Governments of all colours, an NDPB model is not helpful.

Why should we have a separate body in Scotland? First, we will have a different legislative framework from that of the UK—if, as we hope, the bill is enacted—so it will be difficult for the UK Committee on Climate Change to juggle with that. Secondly, most policy areas that impact on climate change are devolved issues on which the UK committee would not be of much use. Thirdly, an important point is that we have not only different public bodies but different structures. Advice on how public services in England might respond to climate change will need to be different from the advice in Scotland, where we have a different type of public service structure.

Essentially, our view is that we should have a distinctive body that can provide independent advice, primarily to Parliament but also to Government. If members are unsure about that point, they need only look at the words of the chair of the UK Committee on Climate Change. When asked about Scotland, he said that, frankly, he did not think that he would be able to support Scotland, for the reasons that I have indicated. The UK committee is sceptical about whether it could do the job. We think that there is a case—we have no scepticism on this point—for having a separate Scottish body.

Charlie Gordon: Do you believe that there is enough scientific expertise in Scotland to staff such a commission? Given that you are presumably talking about appointing not just a commissioner or tsar—as you know, we are not too keen on tsars any more—is there enough

expertise around to have a credible Scottish commission?

Dave Watson: I appreciate that current debate suggests that neither an NDPB nor a tsar would go down too well all round.

I think that we have the expertise in Scotland. We need to bear it in mind—I emphasise this point—that the Scottish commission would not be in competition with the UK committee. Essentially, we believe that the Scottish commission should work within the existing framework. I have heard the argument that we do not have the expertise in Scotland, but I do not buy it. We have world-leading universities that have a whole range of expertise, some of which has been called on to give evidence to this committee. We believe that there is enough understanding in Scotland to provide expertise in the context of taking advice not only from the UK, but Europe and the world.

Rob Gibson: You said that the UK committee said that it would not be competent to deal with the Scottish situation. Where and when was that said?

Dave Watson: When the chair and chief executive of the UK committee came up to Scotland soon after the committee was established, he did not say that they were not competent to deal with Scotland but that they might not be able to support Scotland. I may have paraphrased that, but that is essentially what he said.

Rob Gibson: Did David Kennedy contradict that suggestion in any way?

Dave Watson: No, he agreed with it.

Rob Gibson: In your view, did he change that opinion when he gave evidence to us last week?

Dave Watson: He did not put the matter as starkly as he had previously done because, I suspect, we highlighted the original phrase. However, that is the position. Given the different policy areas and structures, it would be unfair, frankly, to expect the UK committee to be able to reflect the Scottish position. That is why we think that we need the joint effort that would be provided by having a Scottish body that could focus on the Scottish angle and use the expertise that the UK committee will provide.

Charlie Gordon: Is that the view of all the organisations that are represented in the Stop Climate Chaos coalition?

Richard Dixon: Yes, that is our position.

Duncan McLaren: If I may, the position is also—

The Convener: Sorry, I will let Des McNulty ask a supplementary question before I allow the rest of the panel to respond.

Des McNulty: I want to make an analogous point. The UK Committee on Climate Change suggested that the UK impacts report will be a key mechanism. Presumably, that report will be used to inform the adaptation plan here in Scotland as well as elsewhere. However, as I understand it, there is no mechanism in the UK impacts report for key Scottish bodies to be asked for their view in a formal way. Is that a problem? Should the Scottish Environment Protection Agency, Scottish Natural Heritage and other relevant bodies be required to make a formal contribution to that process, if that is the road that we are going down?

Dave Watson: Yes. We see that as part of the reporting mechanisms under the bill. Frankly, those reporting mechanisms need to be tougher and more meaningful than those that are currently sketched out in the bill. Yes, we agree that the First Minister should be required to make an annual statement to Parliament. Yes, there should be an annual report and a response by the independent Scottish commission, but other bodies should also have the opportunity to be involved. Probably, the Public Audit Committee should have a role in scrutinising that annual report by asking SEPA and other regulatory bodies to comment on the approach that had been taken. The kind of reporting mechanism and accountability that would be created would be tougher and more meaningful than the approach set out in the bill.

Duncan McLaren: I understood David Kennedy last week to be slightly more sanguine about what would happen if resources became available. He was talking about dedicating one or two more people to Scotland. That suggests that the estimate in the financial memorandum of the cost of a Scottish committee might be a little exorbitant—it seems to believe that we could function only with the full equivalent of the UK committee, which has 25 to 30 members of staff. So the costs of financing a Scottish committee might be less than estimated and, from David Kennedy's perspective, the costs of getting advice through the UK body are probably more than has been estimated, making them more comparable.

The Convener: Following on from Dave Watson's comment on the duties on ministers to report to Parliament and the structure for reporting, I wonder whether the other witnesses have any views, not only on existing duties but on the proposal that ministers should meet the conveners of parliamentary committees once they have laid their report before Parliament. I should clarify that unless the Parliament's standing orders are changed in some way, that process would be off the record and would not form part of the Parliament's formal, recorded decision-making

process. Could that process be improved in some way or the discussions put on the record?

Richard Dixon: The proposal for ministers to meet the Conveners Group clearly shows the Government's good intentions about bringing the Parliament up to speed and involving key committees in the process. However, as you pointed out, the fact that the meeting will be off the record means that it will not form an appropriate part of the scrutiny of this very important legislation. Whether it means forming another group that happens to have the same people in it—which means that it does not need to fit in with standing orders and can be defined in the bill to ensure that its meetings are recorded and the minutes put up somewhere on the internet—or finding some other mechanism, we must deliver on the Government's intention in an open and transparent way and ensure that any discussions are put on the record.

Dave Watson: I have already set out our proposals, which will also be included in our written evidence.

The Convener: Rob Gibson has a question on adaptation.

Rob Gibson: Other committees are considering various aspects of part 5, but do the witnesses have any views on the bill's adaptation provisions?

Richard Dixon: We are in favour of treating the issue of adaptation seriously. The bill's proposal that a programme and reports be laid before Parliament is sensible, but we would like the timescale for such reports to be formalised. We feel that adaptation is the second most important issue in the bill—the most important is reducing emissions—but, given that the climate has already changed and that, even if we stopped all emissions in the world today, it would continue to change, it is clear that we need to plan for a different future. We are reasonably happy with the provision, but, as I said, we need to look at the timescales for reporting.

Duncan McLaren: It is probably reasonable to say that we are reasonably happy with the proposals. Our key request is that we ensure that adaptation is carried out in compliance with sustainable development outcomes, no matter whether they are defined as a high-level duty in the bill or whether they are attached to these particular sections. Obviously, certain adaptations would be very damaging to other social, economic or environmental interests while others would have very positive effects.

15:45

Cathy Peattie: The panel will be aware that this is not the only bill going through Parliament that is concerned with climate change; a member's bill is coming forward. What is the panel's view of Sarah Boyack's bill?

Richard Dixon: I should start off, because we have been involved with the thinking behind Sarah Boyack's proposed bill, so obviously we are keen on its intent. Clearly, the Climate Change (Scotland) Bill is an opportunity to deliver the same things in a more joined-up way. We have been talking to Sarah Boyack about how the two might come together, and I gather that she has been having productive discussions with the Cabinet Secretary for Finance and Sustainable Growth about how that might be done. It is up to her to decide whether enough is being offered in the delivery of the Government's bill.

We are happy with the principles of her bill. What she intends to do is extremely sensible and would make a good contribution to reducing emissions and tackling fuel poverty. I hope that those principles progress, whether through her bill or through the Government's bill.

Dave Watson: The trade unions strongly support Sarah Boyack's bill. It is a good example of the practical measures that need to be put in place. There is a lot of theoretical talk about high targets, but Sarah Boyack's bill is a good example of practical measures. Those of us who represent energy industry workers think that the bill has merit. We are relaxed about how you do it, but it is a good initiative.

Des McNulty: I understand that the Westminster Government's adaptation plans must be consistent with the principles of sustainable development and that they will be independently assessed by the UK Committee on Climate Change. Could the adaptation provisions in the Scottish bill be similarly strengthened by including a sustainable development duty? Should independent scrutiny of adaptation plans be written into the bill?

Duncan McLaren: As we have noted, there should be a duty for the whole bill to be in accordance with sustainable development. That would apply to adaptation. Indeed, it would be preferable if Scottish ministers were required to seek independent assessment of progress made towards implementing the adaptation programme, and if there were appropriate assessment of the impact of climate change in Scotland, not just a UK assessment with a Scottish dimension.

The final thing to say about adaptation is that Scotland should also seek to support adaptation work to address the impacts of climate change on vulnerable communities and ecosystems in developing countries that are already being directly affected.

The Convener: Before we close this panel, do you have any points to raise that have not come up in questioning?

Duncan McLaren: I am afraid that I have one; I am sorry to add to time.

One of Stop Climate Chaos Scotland's headline asks is that the bill incorporates strong enforcement measures to ensure that its provisions come to fruition. We are particularly concerned to ensure that the bill is clearly justiciable, so that the decisions of ministers and other competent actors on setting targets or activities, plans and programmes that might lead to the missing of targets in the future can be challenged in the courts, and that the courts can make a direction on that in compliance with the Aarhus principles that access to justice should be timely, affordable and merits-based. Those principles should apply in Scotland at the moment, but we do not believe that they are consistently applied and this is the point at which, either in the bill or in the debate, ministers should commit to the bill's provisions being challengeable in that way, as are those of Westminster's 2008 act.

We are also clear that effectively enforceable duties should be imposed on public bodies.

Finally, there might well need to be more incentives to ensure that ministers and other public bodies deliver on their duties. One option for that is to set up a system of financial incentives or sanctions, but there might be other options, and we would welcome the opportunity to explore those at greater length.

The Convener: I thank all three witnesses for their time. If you have further evidence to give, the deadline for submitting written evidence is 27 February.

15:50

Meeting suspended.

15:56

On resuming—

The Convener: I welcome our second panel. Chris Hegarty is advocacy manager at the Scottish Catholic International Aid Fund, Gavin McLellan is head of Christian Aid Scotland, and Judith Robertson is head of Oxfam in Scotland. I am sorry that we are starting this part of the meeting a wee bit later than we expected. We will try to ensure that there is adequate time for questioning.

You represent organisations that are involved in international development. What are your reasons for participating in the process of the Climate Change (Scotland) Bill? Why is it important for you to devote resources to the issue? Why is it important that developed countries work towards ambitious reduction targets for greenhouse gas emissions?

Gavin McLellan (Christian Aid Scotland): I will kick off with a soundbite that came from one of our partners in India:

"Climate change will make poverty permanent."

We have put a lot of resources into making poverty history. Members will recall that in 2005 the G8 summit took place in Scotland—you might have marched in the streets at that time. All that work is at risk, because increasing frequency and severity of disasters are sweeping away a lot of development gains that we have been working on for the past 50 or 60 years. From a humanitarian point of view, and in the context of sustainable development, we want to protect and preserve the development gains that have been made. We also want to encourage communities to be resilient and to adapt to changing circumstances.

It is important that we highlight other issues to our constituencies and there is a moral obligation to act. Some 75 per cent of carbon emissions have occurred during my lifetime and the industrialised north has been responsible. Members know the moral arguments well. There is a moral issue about who is responsible and who is suffering, as we witness the impacts of climate change on developing countries. All the witnesses could talk about field reports; for example, about communities in Bangladesh that have had to move rapidly, salination of fields, threats to food security, frequent and severe droughts and famines, and so on.

Those are the main issues, but we also need to ensure that there are proper compensatory measures for communities and countries that are suffering. We need to ensure that there is a proper global agreement that gives space to countries that are trying to get on to a clean development path, and we need to ensure that countries that have the main responsibility for contributing to climate change pay for adaptation in developing countries. I am sure that my colleagues on the panel will want to add to what I have said.

Judith Robertson (Oxfam in Scotland): I agree with Gavin McLellan. The fundamental issue is the human impacts of climate change now and during the past 20 or 30 years. People are becoming poorer because of climate change, and that will not stop happening. I could not endorse Gavin's words more.

We see in some places daily evidence of the devastating impact of climate change. Climate change is a global issue—it is not just for Scotland. My role, as the representative of Oxfam in Scotland, is to emphasise to the committee that climate change has such strong global impacts

that we cannot afford to ignore it or the contribution that the Scottish Government makes to it. The issue is important and urgent. Furthermore, it is important for us not only to be seen to behave responsibly, but to behave responsibly so that developing countries can build trust in the rich countries in relation to climate change, which is of such human importance. We are talking about effects on the lives of hundreds of millions of people that will happen soon and develop over time. For us, 2050 seems to be very far away, but it is nothing for the children of the people with whom we work and, indeed, for their children.

16:00

Chris Hegarty (Scottish Catholic International Aid Fund): I will quote somebody called Javier Gomez, who is a beneficiary of the SCIAF partnership in El Salvador. When asked what he would say to people in developing countries whose lifestyles might contribute to the change in climate, he said:

"Stop using so much energy. It's impacting on our lives. It's killing us."

That explains powerfully why we are all sitting here. To an extent, we represent the Javiers of the world.

The Convener: What are the witnesses' views on the bill's consultation? Did it give your organisations sufficient opportunity to help shape the bill ahead of its introduction?

Judith Robertson: I am reasonably happy with the consultation, which engaged the participants. We chose to join Stop Climate Chaos Scotland because we felt that we could add another dimension to that important discussion, and that coming together in a collective effort would have more impact. We feel that participating in this process today, too, will help.

Gavin McLellan: I have nothing to add.

The Convener: An issue that arose previously in discussing the consultation was whether it focused sufficiently on creating positive reasons for people to participate in the climate change agenda as opposed to just consulting on the bill, and whether the bill needs to go forward by building on public engagement or outlining how the Scottish Government will create such public engagement. Do the witnesses have views on that theme?

Gavin McLellan: I would highlight our expertise in galvanising the public in that regard. There has been a lot of discussion in the past two hours about capturing hearts and minds. As I said, my agency has experience in mobilising people through campaigns such as make poverty history. If issues are spelled out to people well and there is a sense of urgency, they will want to act. The climate change problem is so big and people can make so many different responses to it, but they are not being guided.

However, we can start harnessing spheres of influence. For example, the eco-congregations network, which is a member of Stop Climate Chaos Scotland, has 200 communities of interest that have come together to work out their responses, but they will need to see big movements and incentives out there. The bill can work towards creating those and can push the investment choices and the mix of interests to make something happen. People feel slightly powerless about what they can do and feel that there are limits to it, but acting together gives real encouragement. In that regard, we can bring expertise in galvanising people.

Chris Hegarty: The challenge that we face as NGOs is to explain to our constituencies why we are working on climate change issues. In that regard, SCIAF is sending out to our constituency about 150,000 packs on climate change issues. That shows that the work is already happening on the ground. I am sure that my colleagues here are involved in similar processes. We are doing our bit, if you like, and we encourage you to do yours.

Judith Robertson: I want to address two dimensions in this context. First, the public will engage when they see leadership that they can trust. For example, the UK Government's decision to have a third runway at Heathrow has an impact on public engagement with climate change, as does the decision to have at Kingsnorth a new coal-fired power station that will not have carbon capture built in from the start.

It is clear that the public will follow where the Government leads, although not always. The Government must be honest in dealing with issues such as climate change, in respect of which individual action will play a huge role in determining the outcome and success of processes. It must say that it will make and commit to targets, it must take the hard decisions that Duncan McLaren and others talked about earlier and it must show leadership to the public. It must show that it has to engage in the matter, ask the public to engage in it, and take responsibility. Public engagement is a huge dimension.

More practically—if what I have just outlined could not be said to be practical—Oxfam has been involved in sustainable development education for many years, which is one reason why Dave Watson gets harassed to death in schools by young people who know what questions to ask people in power. They know how to hold people to account because they understand the issues that are at stake. We need to continue to ensure that

young people in our schools are taught about the impact of their actions on climate change. The bill could at least support that education, as could wider Government action, to ensure that not only the public of today are engaged in the issue, but that future generations will know why hard asks have been made of them, why reduced energy use is being sought, and why we do not use our cars daily.

Children and young people should be able to hold their parents to account. My friends who have children tell me every day that they have been harassed in the morning because they have bought something with extra packaging, something that is not eco-friendly or something that puts detergents into water. Children's pester power should be used for outcomes that we favour, rather than for buying Mars bars.

The Convener: I have a couple of questions about Scotland's opportunity to influence matters beyond the domestic agenda. Obviously, the Scottish Government does not participate directly in international negotiations, but it has been put to us that the bill could have an impact by being an example of world-leading legislation. To what extent is it a realistic objective for us to pass world-leading legislation to set an example for other Governments or countries? What opportunities does Scotland have to help low-carbon development in developing countries and to help them to skip the dirty stage of development by developing in cleaner and greener ways?

Chris Hegarty: I would not underestimate the power of Scotland's precedence in this. We all recognise that Scotland by itself will not solve the problems of climate change, but it stated its intention of going to an 80 per cent emissions reduction target while the UK still had only a 60 per cent target. I would not underestimate the impact that that might have had as a political factor in the UK's moving to an 80 per cent target. By the same token, the UK's 80 per cent target may have been an influence on the United States of America, which now has an 80 per cent target.

Richard Dixon talked about the various ways in which the bill could lead the world. At the moment, it is fair to say that we are slightly reserved about the number of areas in which its proposals lead the world, but Scotland could genuinely lead the world if we imposed immediate annual targets of 3 per cent, had firm commitments on getting 80 per cent of our reductions from domestic efforts as opposed to buying our way out through credits, included aviation and shipping from the start, and made funding commitments for adaptation in overseas countries explicitly, over and above existing aid commitments.

The other aspect is timing. Whether it likes it or not, Scotland has put itself in a position in which it will be examined at a time when many big decisions will be taken in the Copenhagen processes. If consideration of the bill concludes before the summer recess, as has been suggested, we will be in a good position to influence international processes because the hard negotiations on the United Nations Framework Convention on Climate Change towards the Copenhagen summit will take place from June to September.

Gavin McLellan: I echo many of Chris Hegarty's points, but I want to put extra emphasis on the need for 80 per cent of our reductions to come from domestic effort and the need for a 20 per cent cap on emissions trading so that we are not reliant on it. We could make the bill a world leader in many respects. At present, it is potentially world leading: it is important that we make it so and that we give international leadership by ensuring that we achieve 80 per cent of our reductions through domestic effort.

We need real trust to be built up at Copenhagen. Any legislation that will create a lot of political will and a belief that there is real will in the north to achieve emissions reductions would be a good thing. It would be great if the bill achieved that. Ambitious climate change legislation in advance of the Copenhagen conference will send a strong signal, so we are calling for that.

As members will know, the traded sector in Scotland covers about 50 per cent of our emissions. It is therefore particularly important to cap trading so that there is a real incentive to decarbonise—particularly for the power industry—and to send out the right kind of investment signals to ensure that that action happens. That would be a world-leading and important message that could be sent out ahead of the Copenhagen conference.

The convener also asked about what Scotland can do on adaptation and to assist developing countries. I will pass the buck slightly and say that I think that Judith Robertson has done some work on that.

Judith Robertson: We have not done an analysis of industry in Scotland to show what could be applied in the context of developing countries. However, there is no doubt that, if we decided to invest in developing renewables and low-carbon processes to generate energy, those developments could be used and adapted overseas. Patrick Harvie's point about jumping stages in the process is important. The bulk of that work will be done in small communities of people who are already very poor.

We dealt briefly with adaptation, which is a complicated process. The development agencies and the World Bank estimate that it will cost 50

billion annually to put in place adaptation processes that make developing countries secure from the negative effects of climate change. That is a huge investment that needs to take place overseas, on top of the investment that is needed in Scotland and other rich countries to support new industries, new ways of operating and the development of low-carbon processes. Our strong view is that Scotland has a role in supporting the adaptation process. We could add to our international development policy to make it clear that we want to provide resources to support adaptation processes. That is part of our international responsibility, which is not just to reduce our emissions in the future, but to deal with the effects of our past emissions. Those are important dynamics that we have to consider.

On the impact that Scotland's leadership could have, if the bill will hold the Government of today and Governments of the future to account, that will be read and understood by Governments globally, such as the Indian and Chinese Governments and all the Governments that are trying to get off the hook in this difficult situation in which we find ourselves. In some ways, every Government is trying to do that. If, through the bill, we do not let ourselves or the Government off the hook, that will show India and China—which potentially will emit far more than we ever will—that action can be taken. That would be inspiring and responsible and would show commitment to future processes.

We cannot let developing countries not develop—we cannot say that it is not okay for them to get rich, to be successful economies or for people to have cars. It is not okay for anybody to say, "You can't have what we've got." The bill is a really important part of that process. It is inspiring that Scotland can take such action and it is exciting that we will be one of the first countries to do so. I would love to go to Copenhagen and say, "Look what we've done—you can live up to this," rather than say, "Well, we could have made some changes, lobbied harder and done a better job." We do not have to do that. We have the chance to make the bill really strong, good and powerful.

16:15

Chris Hegarty: It will be all very well to create world-leading legislation, but we will then have to become much more evangelical. If we place Scotland's carbon footprint in context, we might think that we cannot contribute all that much; however, we can encourage people in all political parties—regardless of their position on constitutional issues—to push the idea really hard. That will be the next step after we get world-leading legislation in place, as I hope we will.

SCIAF is campaigning on climate change as part of a coalition of equivalent aid agencies in something like 170 countries. If we get a clear example from Scotland, the first thing that I will do is present it to 170 countries, so that they can use our example as an international precedent.

Des McNulty: I note what Judith Robertson said about the international development strategy and the possibility of our processes being adapted. Do skills issues also arise for the international development agencies in Scotland that operate in other countries? Should those agencies get more access to climate change technologies that can be applied in other countries, so that they can encourage those technologies to be used more quickly and more effectively, where appropriate?

Judith Robertson: It would depend on the level at which you want to operate. There are plenty of skills overseas; most communities in developing countries know what they need in order to adapt effectively.

We have limited ability to change weather patterns in the short term, but we can adapt crop production and water schemes. For example, Oxfam can help to lift communities off the ground so that, when tidal disruption and floods happen, people and their goods are still safe and secure. With a bit of support, most communities can have the skills to do that. Asked whether Scottish NGOs are engaged in that sort of work at the moment, I would say, "Mm—possibly to some degree." However, that does not mean that Scotland should hold back, and it does not mean that there is not plenty of potential for developing programmes of work and relationships on the ground overseas.

Des McNulty: I want to ask about targets. What is your view of the approach that has been adopted in the bill of setting batches of annual targets, rather than setting carbon budgets, as has been done in the UK's Climate Change Act 2008?

Judith Robertson: Oxfam in Scotland agrees with the approach that has been advocated by Stop Climate Chaos Scotland. We believe that we have to make annual commitments to a minimum of a 3 per cent reduction. That will allow us to monitor our present reductions and plan our future reductions.

We have heard plenty promises about future targets—the millennium development goals are a fantastic example of that. A wide range of targets for developing countries were set by the United Nations and by global systems, but no accountability mechanisms were built in and no stepping stones were put in place at which Governments could be held to account.

Oxfam in Scotland and the other international development NGOs that are part of Stop Climate Chaos Scotland heartily welcome the notion of annual targets, but we would set them at 3 per cent—we would not leave things to chance. We

would not wait for a Government to decide, on the basis of advice, that it was enough just to do 0.1 per cent more than we had done the previous year. It will not be enough. It will not allow us to achieve our goals. If the committee wants us to, we can provide more evidence of where targets are not being reached. We have to hold ourselves to account for what we commit ourselves to.

Gavin McLellan: I would like to amplify that. One of the reasons for what we are doing is the urgency and scale of the problem. Judith Robertson has just given us a helpful critique of the millennium development goals framework, which has not been delivering anything like as quickly as was originally envisaged. There is a lot to be learned from that. We would not wish to fall into a trap as we go into the negotiations in Copenhagen at the end of the year.

There is an opportunity to show that Scotland is responding to that urgency. If we are committed to the annual target, we should ensure that accountability is strong. That is one of the messages that we can put into the international framework as it gets negotiated: we are serious about our response, and we are dealing with it urgently. We are not going to prevaricate too much about the framework—we want to get started.

Chris Hegarty: I wish to touch on the reasons for front-loading our response, as opposed to end-loading it. Climate change is not some sort of abstract concept that might happen over the next 20 or 30 years. UN figures show that, throughout the first five years of this decade, 262 million people have been adversely affected by climatic events, and 98 per cent of them live in the developing world. We are well positioned to stress the urgency of the situation, and the fact that we cannot afford to sit around for another 10 years just sorting out some infrastructure projects. We really must start taking action sooner rather than later.

Des McNulty: Let us consider the emissions track that the Scottish Government has suggested. It seems not to be front-loading, but end-loading, which is exactly the millennium goals position that you described previously. Targets are being set for a significant distance into the future, which either avoids our having to take action now, or allows the rate at which action is taken now to be slowed. Is that a reasonable parallel to draw? Is it your view that the Climate Change (Scotland) Bill as drafted, with its long-term targets focused on 2050, potentially avoids the early action that you see as necessary? Is that similar to problems that you have experienced in your specialist areas?

Judith Robertson: We have spoken about a 3 per cent annual target. That figure of 3 per cent comes from a trajectory that allows us to meet the objective for 2050. Chris Hegarty is correct on this point: we need to start reducing emissions now and we cannot leave it for another 10 or 20 years. I do not know whether I can say this more strongly: we absolutely advocate a minimum annual emissions reduction target of 3 per cent, and the annual targets should be binding. There should be a process whereby we can hold Government to account against delivery of the targets.

The reason for that—apart from urgency—is that we need not just to deliver first on the easy things, but to invest for the future. We must ensure that the investment is made, and that Government is aware that, if it does not invest now, action will not be deliverable in five, eight or 10 years. Under the bill as drafted, we are not committed to a 3 per cent annual target until after 2019. That is too far away. We need to bring that date forward. We need to bring the provisions into current-day activity. We should encourage the general public and private and public sector bodies to act.

Des McNulty: Again, there are interesting parallels here. The bill does not include formal banking and borrowing arrangements between emissions budgets. Do you have any views on that approach, or any experiences from your activities in the international development field that give you pause for thought?

Judith Robertson: We support what was said by the earlier panel—we wish the effort to be made in Scotland. We want responsibility for managing what we emit and how we deal with it. We should be responsible for taking care of the situation here; nobody else can do it on our behalf. I think it was Duncan McLaren who said that we would not wish to consider the system that you mentioned, which would not add to the annual targets, but would potentially let us off the hook for one, two or perhaps three years, whereas we need to be delivering on reductions. The situation is urgent.

Des McNulty: I will ask you about the interim target, in that case. The current target is for 2030. What is your view on that? Is that an appropriate date? If not, when would you like it to be? What sort of interim target should we be setting ourselves?

Judith Robertson: I agree with the previous panel that a target of reducing emissions by 50 per cent by 2030 will not necessarily lead us to a reduction of 80 per cent by 2050, because that does not fit in with the other ways in which targets are being set. We advocate an annual minimum target of 3 per cent, which will bring us a potential reduction of 42 to 50 per cent by 2020.

Chris Hegarty: I will tie that in with our earlier conversation about how Scotland could lead the world. Irrespective of whether we set annual

targets of 3 per cent or an interim target for 2020, we would, in setting a target for 2020 that is tougher than any existing target anywhere in the world, create another area in which we could—and should—lead the international discussions.

I reiterate what Gavin McLellan said about developing countries' lack of trust and cynicism about what richer countries will deliver being one of the biggest sticking points in relation to the Copenhagen discussions. Offering a further example of a developed country that is stepping up to the mark and taking its responsibilities seriously will help that process.

Des McNulty: So a target of 42 to 50 per cent by 2020 would be more meaningful, relevant and ambitious.

Chris Hegarty: The different targets that are set—by the EU and the IPCC, for example—tend to be for 2020, so it would be difficult to make comparisons if we set a target for 2030. The most helpful thing that we could do is simultaneously set a target for 2020 and make it the most ambitious in the world.

Gavin McLellan: It would be more responsible to set a target for 2020. As we are trying to deal with climate change urgently, it is important that we send the right signals to the Copenhagen negotiations, and that we bring our target into line—we do not wish to appear to be laggards. It is important that we set a target for 2020.

Judith Robertson: However, if we have 3 per cent annual targets that we meet, we will get where we need to be by 2020, 2030 and 2050. That is our objective.

Rob Gibson: The bill contains no sectoral targets. Should it?

Gavin McLellan: I echo the answer that previous witnesses gave with regard to the technical difficulties around sectoral targets. I am not sure that, between us, we have the expertise to comment further.

Judith Robertson: Sectoral targets could be part of either secondary legislation or the guidance that accompanies the bill. If the bill has an annual minimum target for emissions reductions of 3 per cent, work will have to be undertaken to hold the different sectors to account in relation to supporting the Government in meeting that target. Delivering against the target is not completely within the hands of the Scottish Government.

It is not that we do not require sectoral targets, but if the bill contains binding 3 per cent annual targets, sectoral targets will not necessarily need to appear in the primary legislation.

Rob Gibson: I am interested in taking that a little further in relation to food and transport. Food has not been mentioned, but the idea is that we cut down on the amount of CO_2 emissions that arise from importing food and build up our self-reliance through producing basic foodstuffs here. We have reached a self-sufficiency level of 57 per cent in terms of what is sold over the counter. Ought the food sector to appear in the sectoral targets?

Judith Robertson: We have not examined that issue in detail, but if we seek to use sustainable development principles to underpin the way in which the bill is delivered, we must be careful about the impact of the activities that you recommend on developing countries.

The structure of developing countries' economies is very different from that of rich countries' economies. We are 57 per cent self-sufficient because we import the remaining 43 per cent, much of which comes from developing countries whose economies are based solely on crop production and the exportation of primary products. Our cutting that chain will not support the international development process that we seek; it will undermine the development of countries' economies—it has the potential to do fundamental damage. That does not mean that there is no merit in your argument that examining how we produce food might help us to meet emissions targets. However, we must be careful about what happens to other countries as a result of our decisions and take responsibility for that.

16:30

Rob Gibson: I do not want to touch directly on the issues of shipping and aviation, but there seems to be a contradiction in what you are saying, because there is no doubt that bringing food from other places is causing us to create more emissions than we otherwise might. Other members may want to ask you about that, but I invite you to comment on the issue now.

Chris Hegarty: These are complex issues. This discussion exemplifies to us why the principle of global sustainable development should underpin the bill—it could be included in the long title, for example. Some of the contradictions to which you refer will have to be thrashed out in the context of global sustainable development. Having that as a principle would help to frame those discussions.

Rob Gibson: Do you have a view on the different approaches that the Scottish Government and the UK Government have taken to international credits? The UK Government has set a limit on the use of international credits, based on advice from the UK Committee on Climate Change, but the Scottish Government does not intend to prescribe one. Which approach is better?

Gavin McLellan: To make the bill world-leading legislation on climate change, we should prescribe a limit of 20 per cent. The previous panel spoke about the renewables resources that are available in Scotland. We have a great opportunity to cap international credits at a lower level and to create a framework for better investment choices that will release investment into those resources.

Judith Robertson: Having a cap is important, because it means that, ultimately, we invest in effort in the necessary places. I assume that you understand that argument.

Rob Gibson: I do.

Judith Robertson: Effort should be focused on Scotland, and we should invest to ensure that that happens. The Scottish and UK Governments should not assume that constantly buying credits from overseas will do the job.

Rob Gibson: The point of a cap would be to reduce the amount that is tradeable.

Judith Robertson: Exactly.

Rob Gibson: We know that. You must agree that sourcing credits outside the European Union to offset our activities is extremely damaging to the developing world.

Judith Robertson: It depends. There is no doubt that some developing countries' economies could benefit in the short term from finances raised by carbon trading, but we would have to be really careful about who we traded with and how. We agreed to a limit of 20 per cent because there is potential for financial investment from carbon trading to support developing countries' economies. However, if we invest that money overseas, we are not investing it in activity in Scotland—that is the real issue.

Rob Gibson: What do you see money from carbon trading being used to fund in developing countries?

Judith Robertson: Public sector provision of health and education.

The Convener: Is there a need to specify not just the extent to which international credits may be used but their nature? We have heard conflicting opinions on international credits—sometimes they are good, but sometimes they are bad. Is it sufficient for us to set a limit on the extent to which international credits are used? Should we say something about their nature, to maximise the development benefit of those credits that we permit to be used?

Gavin McLellan: In June, the Parliament passed a motion that said that carbon offsetting does not substitute for policies to reduce carbon emissions. In that context, the role that credits play is transitional. That said, standards need to be applied to ensure that projects are genuinely beneficial to overseas communities. As the convener rightly says—and current awareness levels show—not all schemes are particularly beneficial.

I will give some examples that build on what Judith Robertson said. There can be health improvement impacts, but we must not assume that everything rests with us; work is already happening in countries such as China and India. One example is the west Bengal renewable energy development agency, which has links with Christian Aid partners and has provided power to poor communities on Sagar island to enable small businesses to run into the evening. That project has also boosted literacy rates. That is an example of a gold-standard project enabled by adaptation funding and the mechanisms that we are discussing. It is important to consider the quality of projects.

Des McNulty: I understand the argument for making an 80 per cent minimum domestic effort. We should not simply export to other countries our responsibility for carbon saving. That said, how can we make more than a 100 per cent contribution to help other countries to deal with the carbon issues that they face? Are you interested in exploring that form of development support?

Chris Hegarty: There is room for all sorts of responses to the challenges. Earlier, you linked the issue with the Scottish Government's international development policy. Although we are keen to tie together the two issues, we are also keen not to conflate the two budgets. I hope that that makes sense. The last thing that we want is for a precedent to be set under which people tap into existing aid budget commitments for purposes that, in essence, should come under the polluter-pays principle. We should sort out the mess that our pollution causes and tackle problems of global poverty. That is our clear position.

Des McNulty: I am very aware of the issue. Nonetheless, the question whether a contribution could be secured in that way is an interesting one.

Judith Robertson: The bill makes no provision for international adaptation; it does not mention it. It would be good to build in the potential for international adaptation. The Government may want to explore that strategy, either as part of the bill process or by other means.

Over the course of developing as a nation, we have polluted the atmosphere. The principal price of that is being paid not in Scotland but internationally. Unless things change drastically, that will remain the case. In some instances, the human impact of pollution is devastating.

Gavin McLellan spoke of building trust. As part of that process, and if we are to show off our work

on the world stage, it is important for us to integrate the kind of approach that Des McNulty describes, even if it makes only a small contribution to a £50 billion pot. Again, doing that would provide evidence of a recognition that the impact is global.

Des McNulty: I turn to an entirely different issue. How will the arrangements for the EU emission trading scheme be affected by a minimum domestic effort requirement? What are your thoughts on that?

Gavin McLellan: What is the question specifically about?

Des McNulty: How would a minimum domestic effort requirement of 80 per cent work with the arrangements in Europe—the EU emission trading scheme and the various aspects of carbon trading within Europe?

Gavin McLellan: Several points arise. We have discussed them, but I will re-emphasise what we have said.

We must not ignore the ETS sector. As we stated, the sector approximates to 50 per cent of Scotland's emissions. We have to ensure that a cap is put in place. That will incentivise investment in decarbonisation—I am thinking of the power sector in particular. If we do not follow through to the logical conclusion, people will end up with no incentive to reduce emissions. It is important that we do that. We can also make the economic argument that we can develop our expertise, become a market leader and ensure that we send the right signal in investing in the renewables sector, given the cap on emissions trading.

Alex Johnstone (North East Scotland) (Con): I would like to develop an issue that Rob Gibson touched on a moment ago, which is aviation and shipping emissions. We see in the news every day that when we suffer a recession, protectionism raises its head. How do development organisations reconcile an imperative to reduce emissions from aviation and particularly shipping with the importance of opening up our market to developing economies for trade, particularly the trading of their products into our market?

Chris Hegarty: I go back to the point that I made about framing this discussion in the context of global sustainable development. You are right to say that there are contradictions. If we address climate change from the perspective of doing everything we possibly can to reduce our emissions, we will end up with slightly unhelpful policies, such as the one that says that 10 per cent of certain fuels must comprise first-generation biofuels, which does not pay sufficient attention to the social impact in developing countries. That is an example of framing the issue in the context of global sustainable development.

It might also lead to the kind of advice that has been given to the Government on these issues. It is quite interesting to look at the make-up of the UK Committee on Climate Change. The chief executive has some experience in the World Bank, which some might classify as experience of international development, but there is no international development expertise on that committee, which is a gap. If Scotland created a similar committee, using people with international development expertise would help to flesh out the arguments, so that the overall response would be in the context of global sustainable development.

Judith Robertson: There is something about effort in the argument. One of the reasons why we are so keen to include aviation and shipping emissions is because of the scale of their contribution to global climate change. I have not done the analysis, but I am sure that it is available. If we source aviation and shipping emissions, we will find that the vast majority originate in the rich northern countries, not in poor developing countries. We could prioritise the way in which we examine that. We could look at taking responsibility for the emissions that we create, as we talked about earlier in our discussion about shipping and where fuel is put on ships. We are talking long term.

One of the reasons for engaging in the climate change debate and enacting legislation is that we want to take responsibility for what will happen in future. The same applies to the structure of global economies. We are not in a sustainable global economic structure—it does not exist. The economic structure is extremely iniquitous, which is why the sustainable development dynamic is important.

The issue is not just about addressing climate change and aviation and shipping emissions; it is about the way in which we impose on developing countries' economies and restrict their growth and development. That is why it is so important to come back to the point about effort. We need to take responsibility for what we emit. Most emissions come from the rich countries in the north, and we need to factor that into the conversation. More important, we should not use that as an excuse for not including aviation and shipping emissions in the conversation.

16:45

Alex Johnstone: What issues arise as a result of Scotland being the only place so far to set targets that include emissions from international aviation and shipping?

Judith Robertson: There is no doubt that, if that approach is taken globally, the whole process will become much easier. However, if that

approach is not taken elsewhere, it is unlikely that those emissions will be reduced at all. It is important that Scotland is leading the charge, because it means that we can go to Copenhagen and say, "This is on the table in Scotland. We are holding ourselves to account for those emissions and we need you to do the same." It makes the arguments for including those emissions much stronger.

Alex Johnstone: Are you confident that, at this stage, the information that we have is sufficiently robust to enable us to include aviation and shipping in legislation?

Judith Robertson: It seems that the information is limited—I am trusting colleagues who gave evidence earlier on the matter. It seems that some information is robust, but more work needs to be done.

Charlie Gordon: Is the UK Committee on Climate Change model replicated anywhere else? How does scientific analysis feed directly into political negotiations at international level?

Judith Robertson: I am not sure that we can answer those questions. I am sorry.

Chris Hegarty: We have been told that where we do not have technical expertise we can rely on our colleagues from the previous panel to provide written evidence to the committee, if that is helpful.

Charlie Gordon: It would be helpful to receive such evidence in due course.

What is your view on the idea of a Scottish commission on climate change? Mr Hegarty, I think that you endorsed the Dave Watson view.

Judith Robertson: I hesitate to call it the Dave Watson view, not because I have a problem with Dave Watson expressing that view, but because the view is held not just by him but by all the organisations in the coalition.

Charlie Gordon: Yes, but Mr Watson's holding that view is not necessarily a disadvantage for the coalition.

Judith Robertson: I absolutely agree. It is worth saying that we very much endorse the idea of an independent commission that can hold Scotland to account on its own terms. We are concerned that the UK committee will not have the capacity to do that—indeed, that is not just a concern but the reality.

The issue is the reporting process and the accountability process. A witness on the previous panel talked about the role of the Conveners Group—that group is not an appropriate end point for the reporting process. We suggest that Audit Scotland should have responsibility in that regard and should present an analysis to the Parliament. A commission could be the first port of call in supporting the development of an annual report, which would consider progress on the target to reduce emissions by 3 per cent annually. It is all part of a package—the Dave Watson package, if you want to call it that. The accountability and reporting process, of which a commission would be part, is an important dynamic that would support the legislation to deliver on its ambition.

Des McNulty: I am not sure that your argument applies to advice in the same way as it applies to accountability and reporting. Your particular concern seems to be about accountability and reporting and the measurements in Scotland. It is perfectly possible to envisage a Scottish accountability and reporting mechanism that draws on UK-based advice. Have you separated the two issues in your consideration?

Judith Robertson: Both are important. A Scottish commission would be able to advise from a Scottish perspective and would understand the Scottish context better, for example because it would be closer to local government and would understand how it works and what it does. There is no doubt that we could draw on scientific expertise that is held at UK level. The process could operate in different ways.

On the reporting and accountability process, the important point is that a commission would be independent. The independence of not just advice but monitoring and support for the reporting process is important.

Shirley-Anne Somerville: Is it feasible to measure and report on emissions that are generated elsewhere from goods and services that are used in Scotland? Is that happening or being planned anywhere else in the world? The first panel discussed that matter. Do you have any alternative or additional views?

Gavin McLellan: We do not have an alternative view. We support what Richard Dixon said. Data that help to show our overall global impact are already available. Last year, Christian Aid campaigned on targeting some companies that were registered on the stock exchange, because there was a lot of talk about the UK's contribution to global warming being only 2 per cent, but the figure went up to 12 to 15 per cent if wider, indirect emissions from companies that were registered on the stock exchange were taken into account. We used the campaign to tell the public that we have a moral responsibility in that context. It is important that the Government has access to such figures and that members of the public know what they are so that they have a far broader sense of their moral responsibilities in relation to the emissions that we are creating.

Judith Robertson: During the earlier discussion, it occurred to me that there is quite

interesting experience from the private sector. For example, when Procter and Gamble analysed not only the emissions from producing its soap powder but those from its use, it found that the biggest emissions came from washing that was done at 40°C. As a result, it now advertises a brand of Ariel that can achieve the same cleanliness by washing at 15°C. There is a reason for that: the company did the analysis, designed its product and targeted its marketing in a different way. That may not be a perfect example, but it shows that the private sector is leading some of the thinking. We could learn from that.

Cathy Peattie: The Scottish Government has proposed introducing secondary legislation to place climate change duties on public bodies. Do you have any suggestions about what those duties might be?

Judith Robertson: Doing that could potentially support 3 per cent reductions in annual emissions. Public bodies could develop their own strategies or learn from guidance from our independent climate change commission. Public sector buildings contribute hugely to public sector emissions. Investment in energy efficiency measures and the use of renewables in those buildings would clearly be beneficial in contributing to meeting the targets.

Gavin McLellan: Such duties would strengthen procurement and commissioning practices, for example, and help us to meet the targets, as Judith Robertson highlighted.

Cathy Peattie: It is clear that there would be targets if there were a duty to mainstream the tackling of climate change, but how would that be monitored? Sometimes we talk about local authorities taking on duties, but often we are not absolutely clear about what those duties are and how they will be monitored. How would we know that local authorities were doing what they needed to do? Do you have any expectations in that context?

Gavin McLellan: We have called for annual reporting, which could boost local accountability. Perhaps local communities, community councils and local hearings could have a role. We have already mentioned work in schools. Lots of things are happening across the sectors to boost monitoring, and many mechanisms could be put in place.

Judith Robertson: I presume that Audit Scotland would have a role to play, too. If addressing climate change were among the objectives of local government and it had a duty to deliver on that, it would have to report against that duty. It would have to monitor its progress against its objectives, and Audit Scotland would have a role in assessing progress.

Cathy Peattie: So targets that can be audited should be set.

Judith Robertson: Yes.

The Convener: I want to follow up on one small aspect. Gavin McLellan mentioned procurement. For the past few years, it has been possible for sustainable development to be taken into account in procurement decisions, although that has been done patchily. To what extent do those who are involved in public sector procurement take account of the international context of sustainable development? Would a public sector duty improve matters?

Gavin McLellan: I am sure that our coalition members could provide a written view on that. I think that we already have the analysis.

Rob Gibson: I want to clear up something that Judith Robertson said. She said that the World Bank estimates that the cost of support for adaptation will be 50 billion annually. Is that pounds or dollars?

Judith Robertson: I think that it is dollars.

Alex Johnstone: There is not a lot of difference at the moment.

Judith Robertson: Yes—that is becoming less important as an issue.

Rob Gibson: I am glad that my colleague was able to make the joke that I was going to make. I simply wanted to clarify that. Do you have a view on the adaptation provisions in the bill?

Judith Robertson: They will not meet international responsibilities and they will not deliver. From our perspective, the bill does not take responsibility for adaptation.

Rob Gibson: I picked that up from your previous comments.

Cathy Peattie: I have a final question on Sarah Boyack's proposed member's bill, which relates to climate change. What is your view of that bill? Will it enhance the work of the bill that we are considering?

Chris Hegarty: I refer to the answer that our colleagues on the previous panel gave.

The Convener: I thank the witnesses for their time in answering questions. Are there any final issues that you intended to raise but which did not come up in questions? If there are none, I remind you that, if you want to provide further written evidence, the deadline is 27 February.

National Planning Framework (Witness Expenses)

16:56

The Convener: Agenda item 3 is a request for the committee to consider delegating to me the responsibility for arranging, under rule 12.4.3 of the standing orders, for the Scottish Parliamentary Corporate Body to pay the expenses of witnesses who gave evidence on national planning framework 2. Do members agree to delegate that responsibility to me?

Members *indicated agreement*.

The Convener: We have agreed to take agenda item 4 in private.

16:57

Meeting continued in private until 17:19.

Members who would like a printed copy of the *Official Report* to be forwarded to them should give notice at the Document Supply Centre.

No proofs of the *Official Report* can be supplied. Members who want to suggest corrections for the archive edition should mark them clearly in the daily edition, and send it to the Official Report, Scottish Parliament, Edinburgh EH99 1SP. Suggested corrections in any other form cannot be accepted.

The deadline for corrections to this edition is:

Thursday 12 February 2009

PRICES AND SUBSCRIPTION RATES

OFFICIAL REPORT daily editions

Single copies: £5.00
Meetings of the Parliament annual subscriptions: £350.00

The archive edition of the *Official Report* of meetings of the Parliament, written answers and public meetings of committees will be published on CD-ROM.

WRITTEN ANSWERS TO PARLIAMENTARY QUESTIONS weekly compilation

Single copies: £3.75
Annual subscriptions: £150.00

Standing orders will be accepted at Document Supply.

Published in Edinburgh by RR Donnelley and available from:

Blackwell's Bookshop

53 South Bridge
Edinburgh EH1 1YS
0131 622 8222

Blackwell's Bookshops:
243-244 High Holborn
London WC1 7DZ
Tel 020 7831 9501

All trade orders for Scottish Parliament documents should be placed through Blackwell's Edinburgh.

Blackwell's Scottish Parliament Documentation Helpline may be able to assist with additional information on publications of or about the Scottish Parliament, their availability and cost:

Telephone orders and inquiries
0131 622 8283 or
0131 622 8258

Fax orders
0131 557 8149

E-mail orders
business.edinburgh@blackwell.co.uk

Subscriptions & Standing Orders
business.edinburgh@blackwell.co.uk

Scottish Parliament

RNID Typetalk calls welcome on
18001 0131 348 5000
Textphone 0845 270 0152

sp.info@scottish.parliament.uk

All documents are available on the Scottish Parliament website at:

www.scottish.parliament.uk

Accredited Agents
(see Yellow Pages)

and through good booksellers

Printed in Scotland by RR Donnelley