OFFICIAL REPORT
AITHISG OIFIGEIL

Rural Affairs and Islands Committee

Wednesday 7 January 2026

Session 6

The Scottish Parliament
Pàrlamaid na h-Alba

Wednesday 7 January 2026

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RURAL AFFAIRS AND ISLANDS COMMITTEE
1st Meeting 2026, Session 6

CONVENER

*Finlay Carson (Galloway and West Dumfries) (Con)

DEPUTY CONVENER

*Beatrice Wishart (Shetland Islands) (LD)

COMMITTEE MEMBERS

*Alasdair Allan (Na h-Eileanan an Iar) (SNP)
*Ariane Burgess (Highlands and Islands) (Green)
*Tim Eagle (Highlands and Islands) (Con)
*Rhoda Grant (Highlands and Islands) (Lab)
*Emma Harper (South Scotland) (SNP)
*Emma Roddick (Highlands and Islands) (SNP)
*Evelyn Tweed (Stirling) (SNP)

*attended

THE FOLLOWING ALSO PARTICIPATED:

Professor Roxane Andersen (University of the Highlands and Islands)
Jo Ellis (Forestry and Land Scotland)
Dr Alessandro Gimona (James Hutton Institute)
Stuart Goodall (Confor)
Dr Emma Hinchliffe (International Union for Conservation of Nature)
Peter Hutchinson (NatureScot)
Alan McDonnell (Scottish Environment LINK)
Willie McGhee (Community Woodlands Association)
Dr Ruth Mitchell (James Hutton Institute)
Edward Mountain (Highlands and Islands) (Con)
Dr Mike Perks (Forest Research)
David Robertson (Scottish Woodlands)
Dr Emily Taylor (Crichton Carbon Centre)
Hanna Wheatley (Future Economy Scotland)

CLERK TO THE COMMITTEE

Emma Johnston

LOCATION

The Mary Fairfax Somerville Room (CR2)

Scottish Parliament

Rural Affairs and Islands Committee

Wednesday 7 January 2026

[The Convener opened the meeting at 09:12]

Decision on Taking Business in Private

The Convener (Finlay Carson): Good morning, and welcome to the first meeting of the Rural Affairs and Islands Committee in 2026. I wish everybody a happy new year.

Before we begin, I remind everyone to switch their electronic devices to silent.

Under our first agenda item, do members agree to review the evidence heard on the draft climate change plan in private today and at future meetings?

Members *indicated agreement.*

Draft Climate Change Plan

09:13

The Convener: Our second agenda item is an evidence session on the Scottish Government's draft climate change plan.

Beatrice Wishart, Tim Eagle, Ariane Burgess, Emma Roddick and Rhoda Grant are all joining us remotely today because of the weather. Some of the witnesses will also be contributing remotely.

We are also joined by Edward Mountain, who is a reporter for the Net Zero, Energy and Transport Committee. Do you have any declarations of interest to make, Edward?

Edward Mountain (Highlands and Islands) (Con): I am sure that most committee members will have heard me make this declaration before, but I will say now, for the avoidance of any doubt, that I am a member of a family farming partnership in Moray. We farm about 500 acres, or 202 hectares. I am also a tenant on exactly the same area in Moray.

Just to be clear, we have no peatland on the farm, although we do have trees, some of which have received grants in the past under the woodland grant scheme 3.

I hope that that is a sufficient declaration and saves any dubiety.

The Convener: Thank you.

Today's meeting is the first of three at which we will consider aspects of the draft CCP that are relevant to our committee's remit. This week we will focus on the land use, land use change and forestry chapter of the draft CCP by taking evidence from three panels of witnesses.

First, we will take evidence from a panel of experts on aspects of the draft CCP relating to peatland. I welcome to the building—which is nice—Dr Emma Hinchliffe, who is director of the International Union for Conservation of Nature's UK peatland programme; Dr Emily Taylor, director of the Crichton Carbon Centre; Peter Hutchinson, head of the peatland programme and strategy at NatureScot; and Hanna Wheatley, senior economist with Future Economy Scotland. Joining us remotely is Professor Roxane Andersen, theme leader for peatlands at the University of the Highlands and Islands. Good morning.

As I said, we also welcome Edward Mountain. I will ask Edward to ask his questions at the end of each panel.

09:15

Our time for questions this morning is quite limited, so I ask members and participants to be as succinct as possible in their questions and answers. There is no expectation for everyone to answer every point. If you feel that a point has already been covered and you agree with it, there is no need to feel that you must participate further. I remind you that you do not have to operate your microphone; someone from broadcasting will kindly do that for us.

We will now kick off with questions, and my first question is quite straightforward. The peatland restoration sector has made good progress in recent years, but it has yet to meet its targets. Is the new restoration target in the draft plan sufficiently ambitious, while remaining feasible and pragmatic?

Peter Hutchinson (NatureScot): I have a diagram with me that illustrates the amount of progress that we have made on peatland restoration, and I want to put it on the record that we have been making progress.

It is fair to say that we are not on track to meet the target of restoring 250,000 hectares by 2030, but the advantage of the climate change plan's extended target is that we can plan for a much larger target in the future. That planning and stability are key to peatland restoration, because we cannot simply turn on the tap when it comes to doing restoration; we need to plan for it. We need to get the workforce in place, we have to design the projects, and then we have to deliver. The extended ambition in the climate change plan is very welcome.

Dr Emily Taylor (Crichton Carbon Centre): I agree. It is fantastic to see a long-term target of that sort. That is essential in giving confidence to the sector and building the workforce capacity to deliver more, at scale and pace. I recognise that at least 400,000 hectares is to be delivered, which is very welcome.

The target must be considered against the rhetoric in the draft climate change plan, which has more of a focus on the high-emission sites—usually the complex upland erosion sites, which are much more difficult, more costly and potentially more time consuming to restore. The target is a hectarage target, but within it we will see delivery against emissions, biodiversity and other aspects.

Hanna Wheatley (Future Economy Scotland): I echo the point that it is great to see the longer-term commitment, but I cannot help but notice that, in annual terms, the new restoration target is reducing in the short term. In a sense, we are seeing a back loading of peatland restoration, rather than it being front loaded, in the plan. A generous reading of that could be that we need time to develop the workforce and capacity, and there are lots of good reasons for that. However, I cannot help but notice various mentions in the plan of an intention to develop the private finance side of things, which is not yet developed and which needs considerably more work. It is unclear to me, based on research that we have done at Future Economy Scotland, exactly how that market will develop for peatland specifically, as it faces a number of challenges. In some ways, we are delaying action now for an uncertain solution in the future.

Dr Emma Hinchliffe (International Union for Conservation of Nature): I echo everything that everyone has said. We welcome the refreshed long-term commitment but, building on what Hanna Wheatley has just said, we are concerned about the perceived and communicated slowdown in the draft climate change plan.

We have been speaking directly to those in contracting and project development communities who are involved in the voluntary carbon market, and we are hearing concern from them that the plan is not giving them the signal that the Government is committed in the longer term, at scale and at pace, so as allow them to invest in and grow their businesses in what is a growing and emerging sector. We are concerned about the pace of delivery that is communicated under the target.

The Convener: I remember the joy on Roseanna Cunningham's face when peatland restoration was awarded significant sums in the budget. At that point, there were concerns about whether that money could be spent. We are now at a stage of not having reached those targets. Although there has been commendable progress, as Peter Hutchinson mentioned, the targets have not been met.

We are always being told that we need to do more, and to do it quicker, because the scale of the problem will be larger in the future if we do not. However, in the CCP, there is actually a reduction in the pace of peatland restoration. I know that we always call for things to be more pragmatic, practically deliverable and feasible, but is it acceptable that, years on from the setting of the first peatland restoration targets—which have not been met—there is now a slowdown in the ambition to restore peatland?

Hanna Wheatley: I agree with you. In the report that we carried out last year, we assessed that, in order to meet the target of restoring 250,000 hectares of peatland by 2030, annual restoration would have to double every year from last year's record-high figure. We are obviously not going to meet the target, although I note that it is still mentioned in annex 2 of the climate change plan.

Rather than delaying and looking for a solution from private finance, which we have some concerns about, we should be thinking about how we could fund that vital work now.

Professor Roxane Andersen (University of the Highlands and Islands): It is important to highlight that the hectarage targets could be misleading, because, as Emily Taylor said, there are some high-emission areas of peatland that are highly degraded. Those peatlands may not be the largest in area, but they will be important to tackle. If the plan can acknowledge the complexity and nuances of doing peatland restoration at scale, and if it can target a range of different types of restoration, which might be more costly but would be more effective in reducing emissions, that would perhaps be more important than meeting the area target. We also need to recognise the importance of developing the workforce while understanding how all the markets will evolve.

I do not consider the plan to be a reduction in ambition; rather, it is a recognition of the complexity of the problem. The issue with focusing just on area targets is that we will prioritise the low-hanging fruit that cover a wide area but are not necessarily the biggest problems, in relation to not only carbon but water quality, biodiversity and so on. We need to recognise that the plan continues to firmly highlight the need to roll out peatland restoration at pace and scale, but perhaps with a bit more nuance in the regional distribution of the priorities.

The Convener: This is an appropriate time to bring in Alasdair Allan for his question.

Alasdair Allan (Na h-Eileanan an Iar) (SNP): It is always an appropriate time to bring in Alasdair Allan for a question—not least in the new year.

As we have heard, there are different types of land, different types of land use and, I presume, different degrees to which carbon sequestration can be achieved. Will the witnesses say a bit more about the per-hectare target and whether they think that it works?

Dr Taylor: We need a metric to report against, and hectares have been useful for that, certainly in this regard. However, as Roxane Andersen just said, the push towards a hectare target has maybe missed the opportunity to improve in relation to other areas, such as biodiversity, water quality and water regulation. That is because the public funding through the peatland action programme is now looking for larger-scale projects, particularly those that align with private finance, which means alignment with the peatland code.

I am from Dumfries and Galloway, and a lot of the projects that we are developing are smaller in scale. Many of those are forest-to-bog projects, involving the removal of poor-growing conifer forestry and turning it back into functioning peatland. Those projects have the biggest biodiversity and potential carbon impacts. They certainly have an impact on water quality in designated areas and river systems. At the moment, because we are pushed towards a focus on hectares, some of those smaller projects are not seen as a priority. I welcome that there is more of an alignment in the climate change plan with our push to meet the biodiversity crisis along with the climate crisis.

In a way, hectares are an easy thing to report against—we can map hectares quite easily—but it is much harder to quantify some of the other benefits that we see through peatland restoration.

Alasdair Allan: The Government also has a strategy on biodiversity. You mentioned the importance of ensuring that whatever we do for carbon will also be good for biodiversity. How do those two things intersect?

Dr Taylor: They could do so when it comes to scale, delivery, habitat networks and our targets to improve more areas—to meet the 30 by 30 framework targets, for example—through peatland restoration.

There is a misalignment in how we report peatland restoration, because we are fixed on a certain way of measuring hectares that may not fully account for the whole area of biodiversity uplift that is another result of peatland restoration. However, including biodiversity is already a way of prioritising peatland restoration in our region. That comes from the landowners themselves. It is already driving restoration in certain areas.

The Convener: I have a supplementary question on that. We are looking at the Natural Environment (Scotland) Bill, which is between stage 2 and stage 3. Will there be a conflict of some sort whereby one section of Government is looking at biodiversity and everything that is tied in with that bill, whereas another is focusing on how much peatland we restore? As politicians, we are always very good at saying—as I have done—that the Government has not met its targets. Will there be a conflict in ensuring that the outcomes from the Natural Environment (Scotland) Bill align with those from the climate change plan?

Peter Hutchinson: I think that there is an opportunity rather than a conflict. The advantage of peatland restoration is that it provides multiple benefits. In answer to the first question, yes, we have been chasing hectares. We have been trying to maximise the hectarage return from public investment. However, we have an opportunity to target funding at the projects that will deliver multiple broader benefits, such as the reduction of the risk of flood and fire and the promotion of biodiversity. That is where we need to do more

sophisticated design, so that we realise hectares, reduce emissions, improve biodiversity and so on.

Dr Hinchliffe: Yes, there is an opportunity. We are concerned about the delivery of targets. As you say, convener, there have been missed targets in recent years. Part of the reason for that is the laser focus on perhaps the most degraded and most difficult sites when it comes to restoration. However, we have an opportunity for some of the sites that perhaps need lower rates of intervention but would deliver over a larger scale. There is an opportunity to increase delivery targets by looking at a suite of different peatland degradation sites and different restoration interventions. Such an approach would reduce the risk of a conflict between the delivery of outcomes under the Natural Environment (Scotland) Bill and the peatland aspects of the climate change plan, because it would involve delivery across a suite of peatlands, some of which still have remnant biodiversity and some of which are at risk of biodiversity loss altogether.

Professor Andersen: I completely agree with what has been said. This is a good time to bring in the nuance that is needed across different regions. Different parts of Scotland have differing priorities when it comes to areas for restoration. I am based up in the flow country, where we have the world's only peatland that is a United Nations Educational, Scientific and Cultural Organization world heritage site, due in part to its biodiversity. It is important to recognise that those two parts—the biodiversity and the carbon—go together but can also enhance each other. With better management of the areas that do not necessarily need heavy intervention when it comes to restoration, we will have sources for the species that will recolonise adjacent areas that get restored. In addition, by targeting restoration at the reconnection of areas that have been fragmented in the past, we can uplift biodiversity across areas that are much bigger than the footprint of the restoration itself.

The much more strategic and integrated implementation of a restoration plan can deliver wider benefits across the hectarage than just those that relate to carbon; it can deliver biodiversity across much bigger catchment areas.

The Convener: Before we move on, I want to pick up on Emily Taylor's suggestion that some smaller schemes, which would have a far bigger return when it comes to biodiversity, water quality and so on, appear to be bypassed for big, land-based projects in the Highlands that will, potentially, attract private money. Are there processes to address that, or will they be developed as part of the implementation of the Natural Environment (Scotland) Bill and the climate change plan? Are you hopeful that we will see a change, and that it is about not just the biggest bang for our buck but the consideration of those other benefits?

09:30

Dr Taylor: I think that there needs to be a change, which will come about when we start thinking about regional priorities. In Dumfries and Galloway, we are not like the flow country in Caithness and Sutherland; we are very different. We have different but equally important priorities.

In relation to regional land use partnerships, the Crichton Carbon Centre is already looking at a peatland action plan for the south of Scotland. Such mechanisms, which are being supported by the Scottish Government, are critical in enabling us to understand where the best bang for our buck is when it comes to delivering for nature and the climate.

Beatrice Wishart (Shetland Islands) (LD): My question is about the nuance surrounding peatland restoration projects. In Shetland, roughly half the land area is peatland, and about three quarters of it is considered to be damaged peatland. A couple of projects are under way at the moment. From what I hear, those projects are on croft apportionments, but crofters are reluctant to get involved because the landlords own the carbon credits. What is your view on that point? Is that an issue across the Highlands and Islands?

The Convener: Who would like to kick off on that? Emily Taylor and Peter Hutchinson are both nodding vigorously.

Peter Hutchinson: Beatrice Wishart raises a really good point. It is hard to do peatland restoration on land under crofting tenureship. We have come across some problems with that, because of issues such as who gets the carbon credits, but we have been able to work with crofting communities and grazings committees to design projects that everybody can buy into. Instead of using contractors to manage the process, we have piloted a process whereby that is done through NatureScot.

The restoration of peatland in crofting communities is a challenge, but we are finding some solutions. As Beatrice Wishart indicated, we are supporting a number of projects on Shetland this year.

Professor Andersen: This is a really important issue. We have been having the same conversations in the north Highlands and the north-west Highlands, and there have been similar conversations in the Outer Hebrides.

The Flow Country Partnership, which has been working with crofters, will deliver what is, to our knowledge, the first joint peatland code peatland restoration on a common grazings. Once it goes

through the Scottish Land Court, we will have a model or a template of a contract that can deliver the carbon credits distribution to the crofters. We hope that that will pave the way for future solutions by serving as an example of a mechanism for making a much fairer distribution of the benefits that come from the peatland restoration schemes.

Dr Taylor: I go back to the point that Hanna Wheatley raised. This is an area where private finance is underdeveloped and untested, and the level of uncertainty and perceived risk is a huge barrier, particularly in the crofting sector. We are also seeing the same sort of issues in relation to tenancies. We need more examples of the kind that Roxane Anderson mentioned so that we can point to ways of doing this that are fair for everyone involved.

Hanna Wheatley: The issue comes up in relation to land over which multiple parties hold rights. That is true not only for common grazings but for agricultural tenancies. Recent academic work that we cited in our paper last year concluded that crofting rights are incompatible with carbon rights. There are clearly some issues that need to be addressed. I agree that the question of private finance and how crofters are supposed to engage in that world is underexplored, and the Government needs to offer structured and specific support in that area.

The Convener: I am pleased that the issue has been raised, because we are in the middle of considering the Crofting and Scottish Land Court Bill, and your views on that are important.

We move on to a question from Evelyn Tweed.

Evelyn Tweed (Stirling) (SNP): I wish our witnesses a happy new year, and I thank them for joining us.

What will it look like in practice to increase the proportion of the most highly degraded peat that is restored? Do existing policies support that?

The Convener: I think that Peter Hutchinson would like to kick off on that.

Peter Hutchinson: If we focus on the highly degraded peatlands, which are the most expensive and complex projects, we will potentially reduce our chances of meeting the hectare target that was mentioned earlier.

We have been doing some analysis of the projects and have found that some projects that are tackling highly degraded peatlands are doing so at a low cost. It is important to design those complex projects at scale, so that we can deliver the emissions reductions and financial savings. In theory, it is tricky to do both things, but, in practice, we have found that it is possible.

Dr Taylor: From a practical point of view, it is true that those sites are more complex and that the work on them is time-consuming and often involves hand labour as well as logistics. They may well be areas that we will not see as restorable until we have dealt with the surrounding area in a way that makes the whole area more resilient and reduces water flow. However, we could see a change in the costs per hectare.

If we focus on erosion sites, there are other ways of delivering restoration that we need to consider, which could involve improved grazing management and reducing stocking densities. We have seen the benefits of that and, although taking that approach might mean that it takes longer to restore those areas, it would avoid us going in with mechanical intervention or hand labour, which costs more. If there is more of an emphasis on erosion sites, we might have to come up with different solutions for how to meet the restoration needs.

Dr Hinchliffe: As I have said, there is a risk in having a laser focus on the most degraded sites, which originates from the fact that the drivers of the effort are carbon targets and emissions reduction. There is a missed opportunity in relation to our lack of understanding of our designated peatland sites and our wider peatland area outside of the eroding areas and restoration areas. While we are fixing the worst things—the holes in the roof, as it were—the leaks from the slipped tiles are also getting worse. That is the analogy that I come back to.

There is a concern that we do not fully understand the extent of the risk to some of our protected sites, which the plan also seeks to address, under current management and climate conditions. I do not feel that the right balance has been struck in current peatland action delivery or in the draft climate change plan between addressing the most highly emitting sites and looking after our peatlands as a whole across Scotland.

Dr Taylor: I will come in again briefly, as I want to make an important point. We are seeing the impacts of climate change on our peatlands in the south-west of Scotland. We are now targeting areas that we suspect are going to move into a phase of quite rapid erosion in the next few years, and we have sites that are eroding faster than we can map them: we start the planning process and design the scheme, but when we go and check the site, we see that it has eroded further.

One of the priorities should be stopping sites getting to that erosion phase. It is important to consider that there are areas that are really far gone—that are heavily eroded and heavily degraded—but there will also always be areas that we will need to intervene in immediately to stop

them getting to a point that is more costly to address in the long term.

The Convener: You talked about baselining. Do we need to have a new baselining exercise, given some of the changes that you have suggested have occurred since we set the first peatland restoration targets?

Dr Taylor: I would welcome the LIDAR—light detection and ranging—survey that is discussed in the climate change plan. That would give us a helpful snapshot of what is happening in the here and now. Our understanding of erosion and peatland condition has evolved immensely over the past 10 years, since the peatland action programme began. We are always checking against that baseline, but it is important to recognise that it is a moving baseline, which means that the LIDAR survey will have to be repeated multiple times over the next few decades, so that we can maintain an evolving picture and understanding of peatland condition.

Emma Harper (South Scotland) (SNP): Good morning. Hanna Wheatley mentioned workforce capacity and Emily Taylor talked about the challenges around peatland restoration. We have heard that workforce capacity has been a barrier to scaling up peatland restoration efforts in the past. Where are we in relation to that now? Does the draft climate change plan give you confidence that there will be enough capacity in the workforce in order to deliver what we need?

Peter Hutchinson: That is a good question. Five years ago, workforce capacity was seen as a barrier. Since then, we have done a lot of training and skills development with Dr Emily Taylor and her colleagues. We feel that we now have the workforce to do projects and that projects are not failing because we do not have the workforce capacity.

We also recognise that it is not only a case of upskilling today's workforce and that we must also think about tomorrow's workforce, so we are going into schools to raise awareness of the industry and the opportunities that exist. We are upskilling the current workforce, but we also have one eye on the future workforce, which is still at school. At the moment, we have capacity, but if we go ahead with the extended and more ambitious targets, we will probably have to restore double the current annual targets. We need to continue to develop the workforce.

Professor Andersen: I echo that. It is absolutely vital that we continue to develop the workforce. That is particularly important for some of the remote rural regions of Scotland where peatland restoration will be a line of work for the future that includes high-skilled jobs that can make a huge difference to smaller communities.

It is important to recognise—as Peter Hutchinson said—that a huge amount of training has been delivered. I am delivering some of that training up in the north. One of the points that we have discussed recently is that, as well as training the workforce, we need to train the trainers. We need to recognise that, in order to sustain the training provision, we need to invest in people who can deliver that training, so that it can be distributed much more widely across all the regions where there will be peatland restoration.

Again, there is a need for a nuanced approach. The training provision in Shetland might be a bit different from the training provision that is needed elsewhere, because the local needs are different. We need to have a local understanding of the problems in order to deliver a tailored workforce to tackle all the different peatland restoration needs across Scotland.

Hanna Wheatley: I agree with everything that has been said.

One of the points that came up in our research was that contractors need to have more confidence in deciding whether to invest in machinery and people. I have a question in my mind about whether a reduction in annual targets, at least in the short term, would instil the confidence that contractors need early on.

The other point that I will add is that there is a need not only for training and people, but for infrastructure. It is also a question of looking at rural housing, transport and all the various things that we need to sustain rural livelihoods in this area.

Dr Taylor: I make the point that the workforce is not made up only of specialist contractors. We have a huge opportunity to embed peatland restoration and management across sectors. I see the role of the farmer, the crofter and the gamekeeper: we work with those people all the time, and they are critical to undertaking, supporting and, ultimately, maintaining and managing the work. We can diversify the skills in the rural jobs that people have at the moment in order to make those jobs more sustainable in the long term and to deliver more for the climate and nature.

Emma Harper: I have a supplementary question for Dr Taylor, which also picks up on what Roxane Andersen said about Shetland and Orkney and different aspects of the situation there. The Crichton Carbon Centre is a national centre. Is there a perception that the centre's work is basically just about Dumfries and Galloway, or have we made progress in sharing the fact that it is national?

Dr Taylor: Yes, absolutely. It is national—in fact, it is international. People come to us from all

over the world to ask about how we are training and how we are doing peatland restoration.

Having regionality in our training has been critical. As Roxane Andersen pointed out, how we do restoration on Shetland will be very different from how we do it in the Scottish Borders. Recognising the nuances of regionality has been critical, albeit that it has made it more challenging to come up with, for example, Lantra courses and generic accreditation schemes.

Although we still need to have the ability to provide tailored courses and offerings that meet regional needs, the centre is now very much seen as national. We also see that in our contractors and our workforce, who travel up and down the country. They will be doing so just now, coming off the snowy sites and going to the lowland sites, where they can continue to work. It is very much seen as a nationwide opportunity. It goes back to the importance of the national peatland action programme, which is working on a national standard. It produced the technical compendium, and we now have national best practice.

I see the centre's work as a country-wide offering.

The Convener: You talk about "national best practice" and a national scheme. I know that there have been issues and conflicts over procurement—as an MSP, I had considerable correspondence from contractors who were really concerned about the way that the peatland action programme in particular was procuring and the lack of transparency in awarding contracts. Are we over that now? Has the issue been resolved?

09:45

Peter Hutchinson: Yes. We advertise our contracts on the public contracts Scotland portal to ensure that all contracts are available for all.

The Convener: Ariane Burgess has a supplementary question.

Ariane Burgess (Highlands and Islands) (Green): I direct this question specifically to Emily Taylor, given the training that the centre does. I am interested in the issue of seasonal work patterns, which is noted in our papers. I wonder how we get around that. How are you training and thinking about managing the workforce for that?

Dr Taylor: We have our training courses. People can be working in the forestry industry or doing other nature conservation work, so they can move towards different activities in the summer months. In addition, the peatland action programme has worked hard to think about ways of extending the restoration season, which has been helpful. That has involved looking at where we can undertake restoration—for example, we are working high in the uplands where there are no breeding birds.

There has been a combination of work on both sides. It is about looking at the restoration element of the business along with the current business activities, and working with peatland action to look at how we extend the restoration season throughout the year.

Ariane Burgess: Thank you.

The Convener: Would you like to move on to your main question, Ariane?

Ariane Burgess: Sure. I have a number of questions on funding, which I will direct initially to Emily Taylor and Peter Hutchinson; I also have a specific question on tax and private finance for Hanna Wheatley.

In general, I would be interested to know whether the existing funding mechanisms and the amount of funding are going to be enough to deliver what is in the draft climate change plan. I will start with Peter Hutchinson on that and will then go to Emily Taylor, followed by anyone else who wants to come in.

Peter Hutchinson: The funding projections in the current climate change plan are challenging in terms of current costs, so we will have to look at blended finance—bringing in other finance—or reducing the cost of restoration. It will be a case of bringing in additional resources as well as effectively using the resources that we have.

That is going to be challenging, but, given the multiple benefits of peatland restoration, we feel that we could be better at tapping into other sources of funds, so that it is not just the public purse that pays for it. There are multiple benefits, and we need to use those other sources. The projections look challenging, but if we look at different ways of doing it, and at targeting, we can see that there is a way forward.

Dr Taylor: To add to that, the peatland action programme alone will not be able to fund meeting the targets; we will have to look at different sources of funding, and private finance will play a critical role in that.

In addition, if there was more alignment with agri-environment schemes and support, and if we brought land managers into the conversation and supported them with long-term management to improve peatland condition, we would see a significant scale of change in our peatlands. We have seen that in some of the areas that have been subject to moorland management plans, for example. We have seen benefits and improvements even in quite degraded, eroding areas. Therefore, I think that we also need to consider how peatland restoration and

management aligns with the agri-environment schemes.

The Convener: Does Hanna Wheatley want to come in?

Hanna Wheatley: I think that Ariane Burgess wanted to ask me a more specific question.

Ariane Burgess: Yes—I hear that you have already been raising concerns, and I was interested to read Future Economy Scotland's view that the direction and scale of private finance may not be what is needed. You talk about forms of taxation: land value tax and things like that. I would be interested to hear a bit more about Future Economy Scotland's thoughts about how we would fund work in this area.

Hanna Wheatley: Sure. I will try to be brief. Obviously, peatland restoration and maintenance costs money, and we are in an extremely challenging fiscal position. There has therefore been continued interest in bringing in private finance. At Future Economy Scotland, we are taking a step back and asking whether that is the right way to go, what the scale of the cost is and whether private finance is the right solution. Rather than asking, "How do we bring in private finance?", we are asking, "How do we fund peatland restoration?"

We have come up against the idea that peatland and peatland restoration does not behave like a typical market commodity. We are not opposed to private investment—there are lots of public services that need it and benefit from it—but peatland restoration and other forms of nature restoration are not like other market goods. They are non-excludable—they cannot be confined to paying customers—and they are non-rivalrous, in that one person's benefit does not diminish another's. That is because there are all sorts of wide benefits such as biodiversity and flood prevention. For those reasons, we have had to invent the carbon market and peatland credits.

A key issue is demand, and that is where the specifics of peatland come in. Restoring peatlands is about reducing emissions, as opposed to sequestering carbon. There is not the same demand for that as there is for other carbon credits that can be used by companies to become net zero, for instance. As a result, we think that the demand for peatland restoration will be challenging. The idea that we can bring in private finance to produce all the profits that can be used to repay investors is slightly questionable for peatlands.

As a result of that, the Government is considering lots of different derisking measures that will guarantee profits for private investors, including price floor guarantees. Given the challenge around demand and the price of credits, those things are very uncertain, and they could end up costing the Government more over the long term.

In the modelling that we did for our paper last year, we found that introducing the repaying of investor returns can increase costs at a project level by 48 per cent. There are some real issues around the classic economics of that.

Ariane Burgess: So, you are saying that we need to encourage the Government to look more broadly at opportunities for how we finance restoration. Basically, you think that the committee might need to highlight that in our report on the plan. I think that I am hearing you.

My next question is: do you have confidence in the development of a values-led, high-integrity market for responsible investment? You might know about Professor Jill Robbie's work on a public carbon trust. I was working with her in an attempt to get that brought forward so that we can have a system that pulls together all the carbon codes and so on and allows them to be verified, validated and monitored. Do you have any thoughts on the issue of a values-led, high-integrity market? Are we moving in that direction?

Hanna Wheatley: That is a really useful question. Regulation of the carbon market absolutely needs to be brought in. We would also say, however, that there is a broader way of looking at things. Given the costs and the public goods involved, is this work something that the public should be funding? We have developed a model around the idea of zero-interest income-contingent loans, which is a mouthful, but, essentially, it is a version of a student loan, which would involve the Government putting up loans directly to landowners and project managers, who would start to pay back if and when the carbon market took off, if they were selling on the market. In a sense, that involves derisking projects directly, rather than derisking the middleman of the private investor.

I also want to highlight the idea of tax, which you mentioned. At the moment, there is not enough of a pull for people to be doing nature restoration, and we also need to think about the push. Essentially, we need to consider the right blend of carrots and sticks. There are lots of different ideas, and I am really pleased to see that the climate change plan includes the idea of the carbon land tax. However, we have a few other ideas, one of which is a delayed degraded peatlands tax, whereby the Government could indicate now that, in 10 years, it would bring in a tax on peatland that did not meet certain thresholds in 10 years' time. That would encourage landowners either to begin the process of restoring their land or to sell to someone who will.

The Convener: Thank you.

Rhoda Grant (Highlands and Islands) (Lab): A lot of the discussion has been about who does the work of peatland restoration and who is responsible for ensuring that it is done. We have also touched on the role of farmers and crofters in carrying out the work. However, how we manage all of that and whether anyone takes an overarching view does not seem clear.

Who is responsible overall for ensuring that our peatland is in good condition and maintained, and where do the real difficulties lie? Who is responsible for flagging them up and ensuring that the work is carried out?

The Convener: Peter? That was not me answering the question. [*Laughter*.]

Peter Hutchinson: Am I allowed to say thank you for pointing that out to me?

That responsibility rests with the Government. Our peatland is a national resource, and we need to protect that resource, restore it—that is the focus of our conversation today—and manage it, as Emily Taylor hinted at. It is the Government's responsibility to look after our resource, and specific responsibilities are delegated down from there.

NatureScot has a key role. We provide advice on protection, restoration and management. We also facilitate about 70 per cent of restoration in Scotland, and we develop the sector. At the end of the day, the responsibility rests with the Government, but its responsibilities are delegated down to other organisations, such as NatureScot.

Rhoda Grant: Who does NatureScot delegate to? Is it the landowner, the land user or non-governmental organisations? How does NatureScot encourage them to do the work?

Peter Hutchinson: We work with landowners and land managers to take the work forward. Peatland restoration is a voluntary scheme, and there is no obligation to do it at the moment. If the landowner or land manager does not want to do the work, they do not have to. That is the question that we are hinting at in today's conversation—is it appropriate to take a voluntary approach, or do we need some sticks or obligations as well?

The message that I want to convey is that we work with landowners and stakeholders, such as NFU Scotland, very closely. Looking after our peatlands does not mean that we have to stop agricultural use or other operations. Peatland restoration is very much part of the wider management of land. I am sorry, Rhoda—there was quite a lot in that answer.

Rhoda Grant: That was useful. The question is, are we doing enough to enable that to happen? Before we start looking at sticks, what are the carrots that are out there? What work is being done to provide people with information so that they know its importance, how to access it and how it can be funded?

Earlier, we talked about the workforce. There are experts in the field, but not every farmer or crofter could afford to hire them.

Peter Hutchinson: We do a lot of work to promote peatland restoration and its benefits, and we go directly to stakeholders on that. However, we are learning that the benefits and the positive messages are best when they come from land managers and farmers themselves.

We have developed a number of video case studies, in which farmers have said, "I've done peatland restoration on my land. This is why I did it, this is how I did it and these are the results." We are looking to the land management community to help us with promotion and to tell us about their successes, rather than NatureScot promoting them directly. We are very much working with the land management community to ensure that they understand and promote those successes.

Dr Taylor: I want to highlight the importance of the peatland action project-funded officers' role. At the Crichton Carbon Centre, we have one and a half project officers who offer free expert advice on peatland restoration—where to do it, how to do it, how to get it funded and what the opportunities are for you. It means that we are free to engage with people, so that role has been absolutely essential in delivering on the scale that we have to date.

10:00

Having that facilitator role is incredibly important, particularly given the complex land ownership and land management arrangements in crofting communities. Shetland Amenity Trust has been absolutely critical to getting people involved and engaged so that they can understand peatland restoration. It takes people on the ground who are connected to their local communities and who can share knowledge and expertise. We offer impartial advice—we are not there to push in any one direction when it comes to funding, the peatland code or whatever it might be. The facilitator role has been absolutely critical.

Professor Andersen: It is not only the peatland action officers who can play that role; all the regional land use partnerships and smaller groups that interface between the Scottish Government and the landowners on policies can also do so. They are trusted in their communities and understand the challenges, who the local champions are and which people need to be convinced, so that we can better use those channels to deliver on the ground. The use of

trusted regional partnerships, peatland action officers and other such officers is absolutely vital, and that is where the investment might be needed. If we can solidify the groups and ensure that they are supported going forward, they will channel the investment into peatland restoration on the ground and facilitate its extension and expansion. They are absolutely vital, especially as we tailor the restoration regionally and more strategically.

Rhoda Grant: I have no further questions. That was very useful.

The Convener: Chris Stark, the former chair of the Climate Change Committee, used to say that we had not made progress because there was a lack of pragmatism, realism and confidence among people that the targets could be met. From what I just heard, there needs to be confidence, certainty and clarity to allow investment.

The points are a bit like those that we will hear from forestry sector stakeholders later. If there was a risk register or risk assessment, one of the things raised would be a lack of confidence in getting a return on investment in the future, which has been a theme throughout. Hannah Wheatley touched on the need for an integrated funding system, but it appears unclear how it will look. When will we get the clarity and confidence to allow private sector investors to get involved?

We have heard about contractors who, in the past, were expected in some cases to invest multimillions in equipment although there was still a risk that the goalposts would be moved—were they on a register, were they approved and did they meet standards? How far away are we from their having the confidence to invest for the next 10, 15 or 20 years?

Peter Hutchinson: The industry is looking for stability, confidence and certainty. As well as the climate change plan, a five-year plan for peatland has just been published, the aim of which is to provide detailed certainty so that contractors know the amount of restoration that will take place and where we will target in the future. I agree with everything that you have said.

Dr Hinchliffe: In theory, if we get it right, restoration should be a case of one pass—done, monitored and moved on to management. That is not always the case, because sometimes sites need to be revisited. Some communication from Government about what beyond 2040 might look like for peatland restoration and sustainable management in Scotland might be helpful. What comes next, once restoration is complete? What will the new industry move on to tackle? Long-term management will be needed.

Dr Taylor: From a practical point of view, the step change has been a move towards multiyear projects. A contractor knows that, if they go for a job, the work could last for the next two or three years, which allows them to invest in machines and personnel. Taking a multiyear approach to funding and support has been vital in enabling a shift to a more confident sector that will invest.

Peter Hutchinson: As an example of that stability being provided, NatureScot has awarded contracts of between £8 million and £9 million for next year, to ensure that we have those multiyear commitments. The sector has confidence, and it can invest in both the workforce and the machines that it needs to do the work.

Hanna Wheatley: For me, it comes down to the funding models. The Scottish Government has carried out a comprehensive process of assessing 14 different funding models for peatland restoration over the past 18 months. They are all blended finance models, and the one that the Government chose for the pilot is the carbon contracts model. As far as I can tell, however, that model is not scalable and will reach only the very low-hanging fruit—the peatland that is closest to being commercially viable on its own. The fact that that model was chosen after an assessment of 14 different models does not give much confidence that we will find a perfect blended finance solution, and I think it is why the targets have been pushed down the line and we are delaying for an uncertain solution.

Ariane Burgess: I would like to pick up on a comment that you made, Peter, about the idea that peatland restoration is really a volunteer scheme and that we potentially need some sticks to push people towards doing it. In the scale of everything that we are considering in relation to peatland restoration, do you have a feeling that landowners and land managers are forthcoming about it, or do we have a problem? Is there resistance? Do people not know that they have access to peatland action officers?

Connected to that, a couple of people have mentioned the regional land use partnerships. We have a tremendous one in the Highlands and Islands: NorthWest2045. I wonder how—knowing that we need to get on with this—regional land use partnerships help to bring people along who may not yet be on board.

Peter Hutchinson: For the current level of restoration and the 10 per cent increase in the plan over the next five years, the demand is there. I have been looking at our pipeline of projects and, in two years' time, we could potentially have 20,000 hectares of projects on our books. That is because we are investing in design now for projects in the future. We have to do that.

Referring to the requirements beyond 2030, we have to be more creative and look for other ways of bringing in demand.

Dr Taylor: We have huge demand. We are very busy in the south-west, which is excellent. That has come about through more than a decade of working with landowners, building a partnership and showing that we can deliver high-quality projects, working with landowners and managers and co-designing projects with them, so that they make sense for them. That goes back to the facilitation role in the middle.

However, we do not have so much engagement from the farming sector. It is very difficult to see how peatland restoration fits in the farming context, particularly given its alignment with agricultural subsidies. That uncertainty represents a barrier or hesitation around peatland restoration in this context.

I also see hesitancy but more demand and interest in the forestry sector, which is looking to restore poor-growing stands of commercial conifers to bog. We can do that, and it is not as costly as dealing with some of the eroded upland sites. That is feasible, and it could potentially offer the biggest biodiversity, water and carbon benefits.

We do not seem to have enough alignment between the different activities and sectors that we are looking to for delivery of the draft climate change plan that we are considering today. There needs to be more alignment, so that we can be broader in who we are encouraging. We have a lot of demand at the moment, but it is from the standard, larger-scale landowners. I would like to see the small-scale farmers, crofters and foresters engaging more.

Professor Andersen: I have a couple of points to add on the question of how we bring people on board at a practical level. I am involved in a regional land use partnership. In addition to my role as a university researcher, I am a trustee for the Flow Country Partnership. We organise lots of demonstration days. We work with people who have engaged, and we bring in and meet lots of landowners who have not engaged. Demonstrations on site, with landowners talking to landowners, are extremely important events. That is where trust can be built and where questions about how things work in practice—how many sheep people can still have and how their practices will be changed—can be answered.

Going back to a point that Emily Taylor made, integration is absolutely vital. If we want to reduce hesitancy, we need to communicate much better how all the different targets and policies across forestry, agriculture and peatland can be integrated in a way that works, such that they do not compete with each other. That will be really important in the future.

Edward Mountain: I have enjoyed listening to this discussion on the climate change plan.

I would like to drag the witnesses back to page 82 in annex 3, which deals with the costs—you have, no doubt, looked at it. The net costs of the climate change proposals for peatland do not even meet 50 per cent of what the actual costs will be. Can you explain what the actual costs will be to reach the Government's target of 400,000 hectares of peatland restoration by 2040? Perhaps you could give me that figure, Peter, on a cumulative basis—based on interest, not on today's rate of £1,000 a hectare, which the Government is working on. That is just so that people in Scotland understand what the real cost is going to be.

Peter Hutchinson: Yes. It averages out at just over £1,000 a hectare, based on the costs in the plan at the moment, to meet the 400,000 hectare target. At the moment, our costs are nearer £2,000 a hectare.

Edward Mountain: The plan does not come up with a cost per hectare; it just sets out the net cost for the whole plan period as £340 million. I suggest to you that the actual cost may be in excess of £700 million. I am wondering how much money is involved. Where is it in the climate change plan? Where do you understand it to be? What gives you the confidence to support the Government in saying that the natural capital market will come up with the additional money? There is no natural capital market for peatland at the moment, although there might be for forestry. Where is the confidence? Where does the plan stack up financially? That is my question to you, Peter.

Peter Hutchinson: At the moment, it is a challenge to deliver the 400,000 hectare target with £340 million. This is where we need to explore the private finance options.

Edward Mountain: If not pump-priming it. The Government is not making a commitment in the climate change plan; all that it is committed to doing is spending £250 million between now and 2030, of which it had already spent £45 million at the end of 2023. I do not have the latest figures, as I cannot get them. We are way off target. The natural capital market will not invest in something if there is no certainty. You are not giving me certainty and I am not seeing it in the draft plan. Please try to give me certainty so that I can understand that the climate change plan is deliverable.

Peter Hutchinson: I do not think that I can provide you with that certainty in terms of blended finance. We are piloting carbon contracts this year to see whether we can de-risk investment in peatland restoration. That will provide the

certainty—sorry: a degree of certainty. To meet the 400,000 hectare target, however, we need to bring in other finance from elsewhere or to reduce the costs of peatland restoration by delivering it in a different way. Can we operate more at scale to bring down the costs? Can we target the work in different ways? It is not that I am not trying to answer the question—I do not know the answer.

Edward Mountain: My final question is this: do you believe that the costings produced by the Government in the draft climate change plan are actually believable? A yes or no answer will do me.

Peter Hutchinson: They are challenging.

Edward Mountain: I will take that as a no.

The Convener: I will bring in Hanna Wheatley, who will have a view on the matter.

Hanna Wheatley: I agree with you, Ed. It is very unclear in the plan what the actual total costs are—and, more importantly, who will be paying them between landowners, the public sector and the private sector. That is a real issue.

The plan says that the expectation is that private finance will contribute more, but the financial analysis has not been able to capture that future shift. Over what timescale does the Government think that will happen? What proportion of costs will it cover? What if it does not do that? Those questions are driving some of our work here.

The plan could represent a significant underestimate, and it is very unclear at the moment whom the costs will fall on.

Dr Taylor: It also depends on what we end up prioritising. We have had a discussion about whether we are concentrating just on large-scale, easier-to-restore, cheaper sites, which might provide more long-term resilience and work more with an agri-environment type of support scheme, or also on the technically challenging erosion sites. It is unclear, in the discussion and in the plan, what the priorities might be, and that will have a massive bearing on how much things will cost.

The Convener: That brings us to the end of our questions. We very much appreciate your efforts to get here this morning. Your contributions have been greatly appreciated.

10:15

Meeting suspended.

10:29

On resuming—

The Convener: We will continue with our scrutiny of the draft climate change plan by hearing from a panel of forestry practitioners. I welcome Stuart Goodall, chief executive of Confor; Jo Ellis, head of planning and environment at Forestry and Land Scotland; David Robertson, director of investment and business development at Scottish Woodlands; and Willie McGhee, a board member of the Community Woodlands Association.

Before we move to questions, I remind members and witnesses to be succinct in their questions and answers. You do not have to operate your microphones; broadcasting will do that for you.

I will kick off with two fairly straightforward questions. How feasible are the annual planting targets in the draft CCP? Is the Climate Change Committee's higher target of 22,000 hectares per year by the mid-2030s feasible? Who would like to kick off on that?

David Robertson (Scottish Woodlands): I will start, and I am sure that Stuart Goodall will come in as well. Good morning, and thank you for having us along.

I think that it is entirely achievable, starting at 10,000 hectares per annum, as per our target for 2026, and rising by 2,000 hectares each year up to 18,000 at 2032 and then beyond. We have historically achieved, on average, around 10,000 hectares per year over the past five years. The delivery has been somewhat lumpy, depending on what has happened with approvals and grant funding availability, but I think that, on the whole, the targets are achievable and deliverable by the sector.

As a caveat to that, I note that we need the confidence to enable people to invest in skills and the deliverability of the projects over that timescale. It all comes down to confidence, as far as we are concerned.

The Convener: You mention confidence, which was also raised by the witnesses in our previous evidence session on peatland restoration. Over the past couple of years, woodland grant funding has been halved and then partly restored. What did that do to the supply chains? Has it had a knock-on effect? Will the supply chains that are currently in place allow that increase in planting to be delivered?

Stuart Goodall (Confor): I agree with David Robertson's assessment. We believe that the planting targets as set out, rising by 2,000 hectares a year, are achievable. That does not accord with the Climate Change Committee's advice, and it does not quite accord with broader policy objectives or previous statements on the climate change plans regarding the percentage of area that is expected to be planted by 2030 or 2040. However, as a sector, we believe that 2,000 additional hectares a year is achievable, and we are happy to work with those targets. There is a broader question as to whether forestry will be able to deliver all that it could to the climate change plan.

Confidence is key, as David Robertson flagged up. Planting was increasing—it was not a straight line, but, if we look over a period of time, we see that it was increasing significantly from five or 10 years ago. The big impact was two years ago, when the forestry planting budget was cut by about 40 per cent. That really pulled the rug out from under the sector.

Ultimately, people are making long-term investments, whether it is a nursery looking to get the seed to grow the young trees to plant, a company such as Scottish Woodlands recruiting foresters, or small businesses that are undertaking the planting of establishment. There is a whole supply chain that needs to be aligned, and all those elements need to be taking a punt, so to speak, that the funding will be available there for the future. That has been critical.

With regard to the delivery of a climate change plan, we would focus on the importance of having confidence about multi-annual funding—that the funding will be there to achieve the planting levels that we need. That should be a cross-party aim and the Scottish Government should be able to deliver on it. If we look at the sums that are involved, we are basically talking about a crumb off the table in the overall budget, but the delivery is so important, alongside the co-benefits that are provided.

The Convener: Does anything need to change to ensure that the targets are deliverable from where we currently are? It sounded like the witnesses on the peatland restoration panel are not in the right place right now to deliver and achieve that through the budget. Where are we on that with forestry? Are we in the right place? Do we have the right supply chains in place to deliver?

Willie McGhee (Community Woodlands Association): We are dealing with a very simplistic document. I contend that woodland creation is just one of the ways that the forestry sector can contribute. I think that a big trick has been missed in forest management, because, as all practising foresters know, we can add volume to the existing forests.

Coming back to expansion and the bandying around of hectarages, I note that it depends on where the hectarages are. In 2018, something like 17 per cent of Scotland's forests were on deep peat and 21 per cent were on organo-mineral soils. Stuart Goodall and David Robertson could better quantify what we have achieved since 2018, but my guess is that there are now many more hectares of forest on organic soils—peaty soils. We have a great deal of uncertainty about the carbon balances of those forests.

That is not an anti-forestry statement. You asked about doing things smarter. We could move forestry—we need to move it—off those soils, or we could adopt different practices. Forestry rotations are decreasing. All forest research is based on something that we use, which is the MMAI—maximum mean annual increment. We used to harvest at 50 or 60 years, but that is no longer the case. We are now at 30 years, and people are eyeing 25 years and a target diameter of 30cm. The forests are subject to churn. The plan is based on planting new forests that will be harvested more quickly as they are on organic soils, but we do not know a huge amount about what the carbon balance of those forests will be. Mineral soils are great, but once you are on peat, it is a different matter.

Jo Ellis (Forestry and Land Scotland): I will pick up from where Willie McGhee left off. If we are going to move forests on to better land and away from organic mineral soils, we need to consider the other aspect of the certainty issue, which is about support for forestry on some of our better land. A big issue for forestry is the potential competition with agriculture, and that is something to take into account.

I absolutely agree with what has been said, but people also need continuity of funding support for what they are going to do. It takes a while to get through the whole process. Someone will start by buying or acquiring the land, and they have to go through the planning process, which will take a couple of years, and they then have to source the plants. It takes a long time to get to the planting, because there is a long chain of things that need to be done to get there. If, in the middle of that, the political winds change and a piece of land that felt suitable for forestry when the person acquired it suddenly feels not quite so suitable because agricultural interests are more to the fore, that will change the goalposts again.

It is not just about the funding; it is also about the political support, and community views on forestry can change, too. There is a long timescale from the twinkle in the eye to the trees in the ground, and a lot can change in that time. That is

another aspect of the certainty issue, especially when we move away from the places where forestry was located before.

Stuart Goodall: I will pick up on Willie McGhee's point. The key thing here—which I was hoping we could touch on later if we had time—is that the contribution that the forestry sector can make is not just about planting and the potential to grow and store carbon in the forest through suitable forest management. It is also about timber products. I highlight that key point. A lot of the assessment that is made, certainly through mechanisms such as the woodland carbon code, really looks only at the land and the carbon on the land. When we harvest a timber product, that carbon does not immediately oxidise or disappear. In terms of carbon accounting, it is on the land, but in reality it is still there in the product. The question is what we do with that product.

In that regard, I flag up the element of the climate change plan that talks about the benefit of putting more Scottish timber into long-life uses such as construction and housing, which we absolutely support. We need to have much more focus on that. That would start to address the issue of what happens with that timber if we have shorter cycles. If it goes into a house, that carbon is still there. In fact, it can displace higher-carbon materials.

Your original point, convener, was about predictability and how we engender confidence. That is vital. In recent months, we have had very good conversations with the cabinet secretary, Mairi Gougeon, on Scottish forestry and how we can ensure that the current system of approving woodland applications is still robust, that we are not taking short cuts, that we are able to have greater predictability about what the outcome will be, and that we can get to that point more quickly. Dave Robertson can say more about that on a case-by-case basis. Those things are hugely important and we need to improve on them. Achieving the targets will rely on that and on the funding that is available.

The Convener: We will drill down into those topics as we move through our questions, but I will first finish my question. Is everyone confident that we are going to hit the ground running and that the supply chains are in place to allow increased planting from day 1—unlike in peatlands, where we heard that there is still a lot of work to be done to develop funding mechanisms and so on—and to allow us to deliver the targets in the draft CCP and the higher ones of the CCC?

David Robertson: The answer is yes. As a business, Scottish Woodlands has delivered about 30 per cent of everything that has been delivered towards the annual targets in Scotland over the past five years. We are tooled up and the contractor resource is tooled up.

Again, it comes back to confidence and certainty about the future. I had an interesting conversation with a medium-scale contractor in the Borders who said that he had lost £3 million-worth of turnover last year because he could not start work on projects that he had expected to start on due to delays in the process of getting those schemes approved. Small and medium-scale contractors cannot continue to invest in people, machinery and the other things that they need to invest in to be competitive unless they have certainty of outcomes. That is really important.

Willie McGhee: I agree that there is probably the capacity in the sector. I would query whether there is the land availability, but that is a separate thing.

It goes back to Jo Ellis's point. She pretty much described a model or paradigm of how forestry has worked in Scotland, whereby you go after a farm, you buy it, the farmer is off the land and it is covered with trees, whereas I was talking about working with farmers to put trees on farms at scale. That is different from going in and buying the farm.

On Stuart Goodall's point, we have to be very careful. Wood products appear under the LULUCF—land use, land use change and forestry—reporting category. Right now, the construction industry is putting its own carbon crediting system in place. If you try to badge the carbon from a log that went on a lorry and ended up in a house, you need to be very careful, because that looks either like sharp practice or like someone not paying attention. The timber industry will do its own badging, including in relation to substitution for cement and so on.

David Robertson: We need to be very clear that assessment through the woodland carbon code and voluntary carbon market carbon credits are to take account of the growth of the timber alone and not the delivery of the timber product. I am keen to ensure that it is on the record that there is no uncertainty about that position.

The Convener: Jo, we are hearing that there is capacity in the sectors. According to David Robertson, the risk might be the slow progress on approving applications and getting new planting in the ground.

Jo Ellis: I was just saying that there is a long chain of events to get to planting and it is very easy for various things to derail the process.

Are we ready? Broadly, we are, but there are other factors. We need to look at this holistically. The committee heard from the previous panel about peatland. A site needs to be mounded in

order to be planted, and the same people who mound the sites use the same machines for peatland restoration. They are the same contractors. We are finding that some of the mounding contractors are busy doing peatland, which is brilliant. It is basically all one thing.

10:45

You just have to be careful not to see three separate issues, because it is all about the same land with the same contractors working across it. We could expand the contractor base and have enough work for everyone if there was certainty of funding again. I keep coming back to the boring point, which we are all going to keep mentioning, about the need for long-term certainty. There is quite a low bar to entry to become a peatland contractor or a mounding contractor. It is something that people can do, but they will invest in the machinery to do it only if the money is there.

We are broadly ready, but it is easy to have the capacity for all the stages of the long process only for one of them to be derailed. If you have not mounded your site, you cannot plant it, which will delay the process for longer or even derail it.

Stuart Goodall: I point to the fact that we delivered 15,000 hectares per year two years ago, so there is embedded capacity. It is about building on that, which we should be looking at not as a challenge but as a massive opportunity. The Climate Change Committee says that delivering UK-wide planting targets would result in 40,000 new jobs. Scotland is delivering 75 per cent of new woodland creation, so there is potential for 30,000 new jobs in rural Scotland, which is really something to go for.

There is also opportunity downstream, which brings me to Willie McGhee's point. We are talking about meeting our climate change targets through eligible activities such as woodland creation, carbon, and timber products. My evidence focuses entirely on following those measurements and practices to achieve our targets through forestry and the use of grown timber products. If someone then tries to claim the credit for that, that is up to them. We are not promoting the carbon value of timber products; our only message is that using timber products will be helpful in carbon terms. We are not claiming any financial value for that, which is probably where we share a view.

Willie McGhee: In response, I say quickly that Robert Matthews's paper for Forest Research confused the issue by allocating product displacement to different forest types, which looks superficially as if you are badging the forest with the product and displacing cement, steel or whatever.

Stuart Goodall: I am sorry for jumping around. The key thing is what that bit of research intended to show. The Forest Research paper that Willie has just referred to is about whole-life-cycle carbon from different types of forestry. Wood products are part of the carbon cycle and are something that the Government can literally claim credit for, which informs policy decision making. We think that it is absolutely right to take that whole-life approach to forestry and look at both the forest and the products.

As I said, it is important that we do not have double counting of the market mechanisms that are utilised to encourage those outcomes. We do not want to see double counting or non-credible processes. That is why the woodland carbon code is currently so limited in its approach and looks only at forests.

Willie McGhee: To put it simply, the land and carbon registry would not allow that double counting to happen. We have mechanisms in place to prevent that.

The Convener: We move to questions from Alasdair Allan.

Alasdair Allan: I think that you said that the majority of UK tree planting is happening in Scotland. In a second, I will move on to some of the specific stuff about sequestration, but can you say something about species, the possibly changing role that Scotland is playing and the targets that Scotland is setting itself for the planting of native species?

Willie McGhee: I have no idea, but I have an opinion, which is that what I said previously about planting in the uplands applies to native species as well. We need to be careful not to assume that everything native is good, because the same machines that Jo Ellis talked about wander around the north-west of Scotland to establish birch woodland of questionable carbon-uptaking ability over large swathes of ground.

I was given to understand that the targets are pretty much agreed and that a percentage of native woodland—4,000 or 5,000 hectares—is aspirational within those targets. Is hectarage what you mean?

Alasdair Allan: Yes.

Willie McGhee: I do not think that that has changed.

Stuart Goodall: I can confirm that the Scottish Government has a target for a minimum area of woodland being created each year to be native woodland. There is an informal arrangement about percentages of total planting. If you planted 18,000 hectares, for example, the Scottish Government feels comfortable with that being half and half between commercial and native.

Colleagues in the Woodland Trust would say that they would like more than half of it to be native, and I would like more than half of it to be commercial. However, the key point is that, if you are hitting that level, you are achieving your target on native woodland creation, which is 4,000 hectares.

The key point is that, if we were saying that forestry is all about the carbon and nothing else and that we do not give a monkey's about anything else, we would be saying that we should plant as many of the fastest-growing trees as we can, as quickly as possible. Ultimately, however, I think that everybody in the forestry sector recognises that what we want is sustainable forestry that delivers a variety of objectives.

Both Woodland Trust Scotland and Confor could write to Shona Robison and ask her to make sure that there is enough funding and multi-annual funding in the budget to meet the planting targets, because it is going to be about both, and having both will deliver for carbon, jobs, biodiversity, nature, people, access and all the rest of it. That is the way we look at it as a forestry sector.

Willie McGhee: I will come back in on the point about native woodland.

Another bugbear is the polarisation, whereby we have native woodland over here and industrial forestry over there. Scotland's remaining ancient woodlands—the oak woodlands in the west and the pinewoods in Deeside and Speyside—were managed for timber. We should be doing more native woodland management—diverse broadleaves—for timber. We know that oak and pine forests will be effective in carbon sequestration within this plan. Rather than getting hung up on only the biodiversity part of it, I would also contend that native woodlands are not doing enough for Scotland, the public and communities in the way that they are being managed. That goes for the natural capital schemes and rewilding. They should be working harder to create jobs in the local economy.

Jo Ellis: I could not agree more that we need to avoid the polarisation. I hope that the committee does not end up with a sense, through the different evidence sessions that it has this morning, that there is a debate that polarises native woodlands and commercial woodlands.

As Willie McGhee said, native woodlands can offer more for jobs, more for products and more for climate change, and commercial woodlands can be amazing for biodiversity; they can be well designed to provide amazing results. We need to see it as a continuum. It is very simplistic to refer to either "native woodlands" or "productive commercial woodlands". That is easy shorthand, but it does not represent their full value.

When we think about native woodlands and what they will offer in climate change terms over the long term—the world does not end at the end of this climate change plan—we want native woodlands to be sequestering carbon for a very long time.

I hope that the committee will not take away any sense that there is a polarisation or that we should be doing one thing versus the other. We need to do all of it, because all of those kinds of forestry, in different places and on the same sites together, can offer a huge range of benefits. That is what we need to aim for.

David Robertson: I mirror that. We need to get away from saying that it needs to be either one type of forestry or the other. The two are entirely complementary, and modern, productive forestry provides a balance of commercial conifers with timber production that sustains employment and timber production. It is a potential material for construction and fast carbon sequestration. Native woodland provides a long-term trail of carbon sequestration. I agree with Willie McGhee that we should be making more of the woodlands that we have in Scotland and managing them to the best of our ability.

It is important to understand the capacity of commercial forestry to sequester carbon more quickly than native woodland within the timescales of the plan. As far as I am concerned, that is really important. As a business, we have about 2 million tonnes of pending issuance units sitting on the woodland carbon code at the moment. About 800,000 tonnes of those are deliverable before 2050, and they are almost all from productive commercial schemes, which have a balance of native woodland within them. The front loading of carbon sequestration from commercial woodland schemes will be vital for us in meeting the climate change plan's intentions.

Alasdair Allan: Please do not take it from my question that I am seeking to polarise. I agree with what you say, but I am interested to know a bit more about how you all approach the perceived tension around issues such as ensuring habitat and biodiversity, avoiding monoculture and maintaining soil quality in the future. Before the convener brings people in, I think that you will find agreement around the table about multiyear funding, although some of us are quite keen to ensure that the Scottish Government also gets multiyear funding, which would make all of this a lot easier.

Willie McGhee: I concur with Jo Ellis. One of the facets of some modern productive or industrial forestry is no management. A lot of the investment forestry—not all of it, but a lot of it—does not manage. It goes in, plants the trees, closes the gate and goes away—that is it.

There are no good figures to show how much thinning is being done in Scotland's forests, but we know that we have a biomass and bioenergy market that is ready-made for that sort of stuff. There are Sitka spruce forests in Argyll that mirror oakwood flora, because they have been managed for the past 60 or 70 years and they are still there. They are not on short rotation.

The caveat to David Robertson's point about the forests that I would always make is that, if the forestry is on organic soils, there is less certainty about what will happen, and that is what the next witnesses will deal with, I think.

Stuart Goodall: The key thing comes down to design and active management. If we look at the forests that were planted in the last century, the Government's policy at that time was to grow as much fibre as possible as quickly as possible. When I used to work for the Forestry Commission, before it split into Scottish Forestry and the other agency, I would say to an applicant, "You've left a bit of open land there—plant it up." Yes, there should be 5 per cent broadleaves in there, but the other 95 per cent of the land should be planted with as many trees growing carbon in timber, as fast as possible, as we see now.

That has fundamentally changed. The big problem that we have now is that we are working with multi-decadal—if that is the right term—rotations. The forests that were planted in the last century tended to be tree stock that did not grow very quickly, and we were looking at 40 or 50-year rotations up to 80 to 100-year rotations, depending on the tree species. That cannot be changed overnight and we are left with that legacy.

The important thing is what we are doing now. We fundamentally changed our design practices in the late 1990s, and I would say that Scotland and the UK are leading the world in that. Lots of countries and forest industries would say that our standards are better than theirs. Ultimately, our standards stand testament to that and bear comparison with anyone's. We also have the means to validate that through forest certification. Scotland and the rest of the UK are the only places in the world where our standard, which is agreed by all parties and stakeholders, is endorsed by the main certification schemes, under the Forest Stewardship Council and the Programme for the Endorsement of Forest Certification. We are unique in that context.

We need to have the patience to see that play out over time. We need to look at how we get those biodiversity benefits, consider a more mixed-forest and mixed-species design, look carefully at each site to see which species would be appropriate, provide a good consultation process and ensure that that system is managed.

I do not like to disagree with Willie McGhee too often, but—

11:00

Willie McGhee: You have spent a long time doing it. [*Laughter*.]

Stuart Goodall: Yes—it is hard to break a habit.

Ultimately, for the forests that were planted in the previous century, thinning was not necessarily expected, there was no market for thinning and it was not commercially attractive to thin. The wood fuel market has been mentioned, and we now have a board market, so there are attractive markets that make thinning commercially attractive, as well as it being an important silvicultural activity.

As a result of those things and through forest design, even the most timber-focused forests can deliver significant biodiversity benefits. In aid of that bold statement, I note that NatureScot produced a biodiversity report in 2025 that highlighted commercial certified forests as one of the few areas in which biodiversity and species abundance were increasing. We can deliver that through design and management, but, to achieve that objective, we need to manage purely native woodland as well as the commercially managed parts of forests. If we just walk away from native woodland, we will not realise its biodiversity potential. Active management is therefore incredibly important.

The Convener: Finally and briefly, I will bring in Willie McGhee.

Willie McGhee: Can the committee ask somebody to tell it how many hectares of Scotland's forests are being thinned now? What area is being clear felled year on year? Has anyone ever seen those figures? I do not know. Have you seen the figure for clear felling, David? No. Have you seen the figure for thinning? No. We do not know. We need to know whether those forests are being actively managed.

David Robertson: I will answer those questions directly and very briefly. I can reassure you that, when we go through the process of designing a new woodland, no stone is left unturned in relation to the identification of constraints, restrictions on the site, biodiversity, soil, water quality, species and habitat. We have a highly regulated process and system that ensures that we take those things into account, and we try, within the realms of possibility, not to cause harm.

Emma Harper: I want to pick up on what Willie McGhee said about working with farmers instead of buying farmers' land, evicting them and planting trees. I am interested in the uptake of the sheep and trees scheme and in the diverse conifer

options. Promoting diversity in conifer species is good for resilience and disease resistance in relation to climate change.

Willie McGhee: I could not give you a definitive answer, but uptake of the sheep and trees scheme would probably be best described as modest.

We have not had a serious go at integration in sectors such as forestry, agriculture and sport. When I worked in the Scottish Borders, most of the owner-occupier farmers were in their 50s and 60s and, when they saw forestry coming over the hill, they thought, "Ah, retirement," rather than thinking about legacy and transferring land to the next generation. We need to be much more serious about courting farmers and persuading them of the benefits of woodland planting. If they are being asked to de-stock as part of the climate change plan, or if they are doing that for whatever reason, forestry offers them a viable option.

When I was working in the Ettrick and Yarrow valleys, we were persuading farmers to put in 40 hectares at a time, because that was what the farm woodland premium scheme paid for over 15 years. If we had a scheme like that now, we would be able to persuade a lot more farmers to put trees on their land.

David Robertson: We must be really careful about language, especially in talking about evicting farmers from sites. A lot of the whole-farm sites that have been purchased were sold on the open market by farming families who might have been coming to the end of a succession plan, and they were taken up and planted by forestry buyers. I am not aware of any situation in Scotland where a farm has been bought and people have been forcibly evicted in order to plant trees.

I am looking at that from the other end of the telescope, as someone who has a forestry business that is planting by far the largest area in Scotland in order to help achieve the targets. We have huge interaction with the farming sector, and about 70 per cent of all the schemes that we do by number are done for farmers, who have a significant uptake in what we do. If we look at the historical delivery of the Scottish forestry grant scheme, we see that the average size of scheme projects from its inception in 2017 up to today is about 25 hectares, which means that the heavy lifting to meet planting targets over that period has actually been done by small-scale farming enterprises, assisted by organisations such as ours and others going in to give them advice about planting on parts of their farms.

It would be incorrect to say that the farming sector is not taking up the opportunity for forestry. It is clear that forestry investors are providing some of the large-scale projects that we see coming forward, but the agricultural sector is definitely playing its part.

However, we have seen a downturn in that because of the erosion of grant support versus inflation. There has been huge cost inflation in both labour and materials in the forestry sector since 2000, but grant rates certainly have not kept pace with that, which means that small-scale forestry planting in the agriculture sector is much less attractive than it used to be. That is where we are seeing a disconnect at the moment.

Stuart Goodall: I will make a quick point, to build on what has been said. Essentially, there has not been a huge area of planting, and especially not of large areas of planting by farmers to produce timber. We would like to see more of that, because there is more scope for it. There are some cultural challenges and some issues with funding. Farmers get an annual income through payments from Government and from their crops or animals, whereas any income from forestry is going to come later, which creates challenges. If there was integrated policy making and better discussion and negotiation between the forestry and farming sectors, we could come up with models to deliver more of that, which is positive.

Feel free to tell me off afterwards if I am misinterpreting the question, but there is an extent to which forestry and large-scale afforestation are seen as being damaging to farming or to rural areas, but it is important to look at the strategic context. We can see that changes in diet are reducing meat eating: I have three daughters: one is vegan, one is vegetarian and one is effectively pescatarian. People are not eating as much meat as they used to, which is a challenge for parts of the farming sector, including sheep farming. That creates an opportunity to look at tree planting as a solution and a means of partly addressing that challenge, but it will be better if that is done in a co-ordinated and negotiated way, rather than seeming to be imposed.

One more factor to flag up is that we had some work undertaken by Scotland's Rural College to look at the net impact on jobs and on local economies, which showed that there are at least as many jobs and as much income from forestry as from farming. That is less visible, because, instead of having a farmer on a hill, you have a forester in a village, an establishment forester or a harvester. A lot of new jobs are developing. In the south of Scotland, there are thousands and thousands of high-value forestry-related jobs that were not there before.

Jo Ellis: I want to pick up on integration, which is an important aspect. Earlier, I did not want to imply that it is about farming versus forestry or sheep versus trees. The point that I was making is that, when you are creating new woodland, you

will be replacing something. Scotland's land is not just sitting there with no one using it; it is being used for something, whether that is agriculture, crofting, or grouse moors—although some of it is vacant and derelict land. Every time you make a change, you are displacing something. It is best if you can do that in an integrated way, as David Robertson has described, so that you have farming alongside forestry or integrated land use. We need those kinds of joined-up policy signals so that one sector does not have to compete with another sector and it does not turn into some kind of fight. There needs to be a holistic look at the way in which we use our land, so that we can find the best use of that land in an integrated way rather than setting up conflicts that cause tension and create barriers.

The Convener: I will bring in Rhoda Grant with a supplementary question.

Rhoda Grant: Would we have enough land for everything if we had proper planning? We are not self-sufficient in food and we are definitely not self-sufficient in timber. We also need to meet our climate targets, and the nature restoration targets require an awful lot more native woodland. Is there enough land to go round, and how do we manage that?

David Robertson: That is an excellent question that ties in to the point that I want to make. To set the context, we have 5.5 million hectares of agricultural land in Scotland, 4.5 million hectares of which is grazing land. In order to achieve the climate change plan's ambitions, we need only 5 per cent of that land. Stuart Goodall has mentioned changes in diet and attitudes to eating meat, as well as some of the challenges that the wider agricultural sector is facing in challenging environments. Those are exactly the environments in which forestry can take over and have a real impact on jobs, biodiversity and wider rural access, alongside all the other benefits that forestry provides. We need to take that context into account.

Willie McGhee: My question is probably for Edward Mountain. How much of our arable land is used for malting and animal feed?

The Convener: I think that we will stick to forestry.

Willie McGhee: Okay. I made the point earlier that we want to move away from the organic soils in the uplands to the better, mineral soils. There is something going on there. The other point was about tenancy. I do not know what the current arrangement is with tenant farmers, but, historically, they have not been able to put woodland on their ground without the landowner taking it back in hand.

Stuart Goodall, do you want to come in on that?

Stuart Goodall: No. Sorry—I did not mean to distract you. To build on your point, Rhoda Grant is absolutely right that we are facing all these different challenges—economic rule, economic jobs, climate change, food, timber and resources. Can we deliver more with what we have? I think that we can. About 13 years ago, a woodland expansion advisory group that brought together the forestry and farming sectors was set up to discuss how we can achieve more tree planting in a way that minimises the negatives and maximises the positives for those sectors. I think that it would be good to come back and have a look at those things. I am a great believer that Government civil servants can sometimes get a bit paralysed in the centre with all these different stakeholders—including me—throwing rocks at them. It is sometimes good to say to stakeholders, "Let's get round the table and, instead of throwing rocks, we can have a conversation."

11:15

The Convener: We have certainly heard that point made recently. One issue is that we have come to the end of the route map for agriculture funding, which has fallen off a cliff. There is also no sign of the rural support plan coming any time soon. In fact, we received correspondence today saying that it is still not ready to be delivered and that there is no timeframe for its publication. Is that not the elephant in the room? The good food nation plan has stalled and the rural support plan is not even on the horizon.

There is no plan for doing some of the integration work that Willie McGhee was talking about, —whether for malt and barley or sheep production, or for taking some of the 5 per cent of agricultural grazing land that is to be used for trees. Yet, at some point in the next few weeks, we will have to decide whether to approve the climate change plan. That is not a good place to be.

Willie McGhee: It is a toughie.

The Convener: Anyway, that was just a point. I see that Rhoda Grant has no further questions to ask, so we will move on to the next question, which is from Ariane Burgess.

Ariane Burgess: Before I ask my questions, I will let everybody know that I am a member of the Community Woodlands Association.

I want to move on to the area of harvested wood products. I will address my opening question to Stuart Goodall, who can tell us the answer to it, and then I will broaden out to a question on the policies around harvested wood products in the climate change plan. Stuart, what is Scottish wood harvested for in Scotland? What is the timber harvested for? Do the products that we harvest

continue to lock up carbon? Somebody touched on that earlier.

Stuart Goodall: That is an important starting point. Ultimately, most of the timber that we harvest goes to sawmills, and the sawmills then put their products into fencing for agricultural and garden usage. The timber will also go to the housing construction sector, a significant part of which is the repair, maintenance and improvement of housing rather than the construction of new housing. That is a big opportunity that we should be doing more with. A significant part of the timber goes into wood pallets—that is, everything that moves food, medicines and everything else around, which is an absolutely vital usage. A significant proportion of the raw material goes into panel boards—for example, oriented strand board. A lot of the OSB will end up in housing, flooring and other such uses. Many of those markets involve long-term uses.

I will also flag up that very little wood ends up in landfill. We are getting better at recovering and reusing the wood products that we produce. Even pallets or panel boards can be put back into the supply chain and reused. An awful lot of reuse and recycling is happening. Ultimately, after a number of such cycles, those boards can be burned for energy alongside some of the immediate virgin material that is available.

From a climate change perspective, the key point is how we can get more of Scotland's timber into long-life products. For example, with regard to building houses, at the end of life—which I hope will not be for hundreds of years—we can take the product out and reuse it or recycle it to give it multiple uses. We have the option and the opportunity to get a long life out of the carbon in our forests.

Ariane Burgess: Thanks for that great and comprehensive answer. I imagine that some of what we grow also ends up getting burned almost immediately.

To move on to the policies—

The Convener: Willie McGhee wants to come in on that point.

Willie McGhee: I just want to pose a question again. Every year, forestry statistics and research data are published on how much timber goes into sawmills. I am not sure whether there is an issue with confidentiality or business interests, but I have not seen any figures that set out what percentage of the timber that goes into sawmills comes out as sheds, fences, house material or whatever. There is no definitive set of figures on that.

Interestingly, the customer representatives group for Scottish Forestry—colleagues of David Robertson, Stuart Goodall and Jo Ellis will be on that group, too—is being asked to look at metal fencing, because the complaint in the north-west of Scotland is that the fence material is not up to snuff. A consultation on introducing such fencing is going on right now, which is ridiculous when we have Scots pine and larch—well, we have less larch now—that can do the job. There are on-going challenges, but I, for one, will be asking why we are considering using that stuff.

Stuart Goodall: There is no issue with confidentiality in relation to the percentages. Ultimately, it is about gathering the data—

Willie McGhee: The volumes are provided, but there are no figures that say that a certain percentage went to housing, a certain percentage went to fencing and so on.

Stuart Goodall: The forestry statistics are updated annually, and figures are provided to show how much timber goes to sawmills, how many green tonnes that represents and how much comes out as sawn wood. We would be keen to set targets, collect such data and monitor the situation—this is relevant to the climate change plan—because we want more timber to be used for long-life products. Generally speaking, about a third of the sawn timber from sawmills goes to the construction and housing sector, about a third goes to the fencing sector and about a third goes into pallets. That is the rule of thumb.

David Robertson: On that point, we are working with James Jones and Sons, one of the largest sawmillers in the UK, on research relating to a carbon project. It has grown a carbon site that we established on its behalf, and we are looking at the project's full carbon cycle and the projections on the material that it will deliver. We hope to produce a paper this year, which will give a bit of certainty on the outcomes.

The Convener: I am conscious of the time. Do you have a further point to make, Ariane?

Ariane Burgess: Yes—I want to ask the rest of my questions.

In a way, Stuart Goodall has touched on what I want to ask about, and it was good to hear from David Robertson about that initiative. The draft climate change plan includes two policies on harvested wood products. One is to continue to collaborate with the private forestry sector on the timber development programme to promote and develop wood products for use in construction, and the other is to work with the sector through the forestry and wood-based industry leadership group.

However, we do not have clarity on what the Government is aiming to do in that regard. Are there targets? What is the Government looking for

in relation to production and the speed with which it wants to get more harvested wood products into the construction sector, other than just timber frames and some of the things that Stuart Goodall articulated? Can you give us a bit of clarity on harvested wood products? The policies seem to be somewhat vague. The Government has said that it will work with the sector, but what are we trying to achieve?

Stuart Goodall: That is a great question. In a moment, I will give a shameless plug for Confor's election manifesto for all the parties.

The key point is that some activities are taking place. For example, we are trying to understand the properties of the trees that we are growing, the properties of the wood that we are producing and what that wood would be suitable for. Very modest levels of funding are available, and that money is going mainly to small enterprises that are doing excellent work on how they can put small quantities of Scottish timber into local housing, for example. We have some fantastic businesses such as Makar and—I will get told off if I do not get its name right—Highland Heritage Woodworks, but the key point is that the funding is very modest and the work is not necessarily joined up.

My shameless plug is that we are saying that we need a timber industrial strategy in Scotland. We used to lead on many of these things, but we are now seeing England and Wales developing their work. We should really dig into how to get more of our home-grown timber into housing, construction and high-value, low-carbon uses. It is absolutely vital that the next Government looks at that and realises that we could do a lot more and that that could bring real benefits for the economy, jobs and carbon.

I support Willie McGhee's point about native woodlands, because it should not just be about conifers but should be about hardwood as well. There is a real opportunity to do more, but we do not have a focused mechanism to do it, and a timber industrial strategy would allow us to lock that in.

David Robertson: It is fair to say that there are lots of small initiatives to look at how we can better use timber in Scotland, but there is still a fundamental issue with timber supply. There is great uncertainty about timber supply in Scotland—in fact, it is not uncertainty, because we know that the supply will decrease beyond 2040. Sawmillers and organisations that are looking to invest in facilities to get more out of the timber that we produce in Scotland need certainty of outcome and need to know that they will have a supply in the future. If we cannot get trees in the ground now, they will not have much of a future to think about.

That takes us back to the point about confidence that I have already made two or three times. We need to have confidence in the timber supply before large-scale investment will come in to look at how to use that. It would cost £100 million to build a new sawmill in Scotland, and no one is going to spend £100 million on the basis of the planting targets that we have at the moment. It is all about confidence.

The Convener: We will move to questions from Tim Eagle.

Tim Eagle (Highlands and Islands) (Con): Part of my question may have already been answered, but I have a three-part question about funding. The first part is to ask whether you have any further thoughts about Scottish Government funding. There has been some concern about that in the past and there was significant representation on that when we held a panel discussion many months ago. I know that was spoken about earlier today. The second part of my question is about the role of private finance in the plans. Finally, I do not know much about it, but the draft CCP talks about a

"responsible, values-driven, high-integrity natural capital market".

If you could explain more about what that means to you, that would be great.

Willie McGhee: Not a lot. I would suggest that "high-integrity" is very optimistic. The previous panel, when talking about peatlands, suggested that the natural capital market is not really there. We do have a woodland carbon code and a woodland carbon market, which might blossom or might stay the same, depending on what the UK Government does.

My topic, Tim, is communities. At the moment, communities under woodland creation see very little benefit. A lot of the community pushback against forestry happens because they do not have a stake in it. If a community gets a wind farm on a neighbouring hill, they will at least get a wind farm fund. However, a community that gets a new plantation may get a job or two, but that is not certain.

That goes back to the issue of the supply chain. Communities have objected to schemes and have held them up. David Robertson and Stuart Goodall both alluded to barriers. I am not personally involved, but I can certainly speak on behalf of communities in saying that any financial incentive, whether through a high-integrity carbon market or anything else, such as a portion of the revenue that comes from a rewilding or conifer scheme, might make them far more amenable to having large-scale forestry established on their doorstep. They might also be open to being offered something at the end of the rotation, such as a

portion of woodland that they could manage or a tithe or levy on the clear-fell income. I put those forward as suggestions.

11:30

David Robertson: Public funding provides the pump-priming that was talked about in the peatland session this morning and gives certainty to private capital coming into the sector. I have been involved in the forestry sector over 30 years, and, throughout that time, we have seen time and again, in relation to various grant schemes, that incentives wax and wane, and that, as public funding wanes, private contributions and private uptake wane as well. The two are inextricably linked.

It does not have to be 100 per cent support or funding for operations, but having certainty around public support and tie-in from the Government, so that it has skin in the game, gives people absolute certainty that it is a long-term project, so that they are willing to invest in it. If we do not have that level of public funding, we always see private sector funding drop off.

There is a huge amount of private sector funding out there waiting to be deployed in Scotland to establish forestry—there is absolutely no doubt about that. However, it goes back to the point about certainty of outcomes: we are not seeing certainty of outcomes at the moment because of the regulatory process and the consultation process. The misinformation that we are seeing about the forestry sector also impacts the deliverability of schemes.

People will not invest if they expect to have a scheme approved within two years but suddenly it takes five years to get a scheme approved. That is the real barrier that we see at the current time. The availability of private funding is undoubted. Schemes such as the woodland carbon code and the peatland code are very much viewed, on a global level, as being very high-integrity schemes. They are Government run and Government backed, and investors who are looking at voluntary carbon markets see them as being extremely high integrity. We really have something to hang a hat on in the UK context, as far as that is concerned.

The Convener: I remind everyone that we are very short on time—in fact, we are over time, and we still have a number of questions to go through.

Willie, I will miss you out here. I will go to—

Willie McGhee: It is a soundbite. If communities had access to the £50 million that the Scottish National Investment Bank lent to Gresham, they would have skin in the game. Communities would have a stake in woodland creation.

Jo Ellis: I will make a small practical point, which is that the money comes later in relation to these values-led, high-integrity markets—the carbon markets and so on. People gain pending issuance units, which will be sold further down the line for an as-yet-unspecified amount of money, depending on what the carbon market is like.

I therefore agree with David Robertson that, in order to get things going, and for continuity, it is essential to have that underpinning Scottish Government funding—even if people are prepared to speculate on the fact that they might manage to get carbon money later on. That is how it works. To some extent, private finance is speculative and so is the carbon money. However, it comes later, so people need that underpinning.

Emma Roddick (Highlands and Islands) (SNP): We have already touched on a few of the practical barriers in forestry, but are there specific barriers that would put delivery of the climate change plan ambitions at risk? If so, are any policies or proposals missing from this draft that you think could address those?

Stuart Goodall: I will summarise some earlier points. Ultimately, to deliver on the targets that we are talking about, there needs to be confidence around funding. That is an absolute and fundamental requirement.

In order to increase the level of planting by 2,000 hectares each year, we basically need to get all hands to the pump. We need all types of planting, which creates great opportunities, if we can site those forests in the right places and in the right ways.

I highlight the fact that, if we are going to achieve 18,000 hectares of new woodland a year, that will have to be on the back of a significant area of larger individual woodland creation schemes. If we try to deliver 18,000 hectares a year with an average woodland size of 20 or 25 hectares, it simply will not happen, because we do not have the resources to deal with that number of applications. We will have to have larger schemes.

In those circumstances, predictability is absolute. It does not matter what type of woodland creation it is—whether it is primarily financially driven or is primarily about native woodlands or wilding—there needs to be predictability. If you have an area of land, you need clear guidance so that you can navigate the requirements that will be applied by Scottish Forestry as part of a robust assessment process. That will allow you to have a good idea of what the outcome of the process will be and will allow for shorter timeframes. Importantly, shortening timeframes is not about cutting corners or having a less robust process. Ultimately, in many cases at the moment, timeframes are being extended because we are

not facing up to or responding to the questions that are being asked. We are trying to drag things out in the hope that, somehow, things will get better by having lots of conversations.

I will give an example. I like living in areas with rural aspects. Twice in my life, I have been unfortunate that there has been house building on the back of my house, which I objected to and I did not want, although I understand why we do it. There was a process; my voice was heard and I was ignored. I am not saying that that is how we should look at forestry. I am drawing a parallel in that there was a clearly understood process; I understood how things were being assessed and the basis on which I was able to make an objection. In forestry, as David Robertson said, we have not been good enough in setting out the process, why planting is being done, how stakeholders will be fairly listened to and how we will make the effort to engage with them. We all want to do that in the spirit of being helpful, but, ultimately, a decision has to be made. Too often, we are running away from making those decisions fast enough.

David Robertson: It is important to have certainty on the outcomes and the application of the forestry sector's strict rules and regulations and that the goalposts do not change regularly. During the application process, the goalposts can change three, four or five times, which provides a huge amount of uncertainty for applicants, whether they are investors or existing landowners, which certainly does not help. It is really important to use the rules and regulations that we already have and apply them in a fair and proportionate way. Willie McGhee made the point about communities. We have to take them along with us, but, more often than not, certain stakeholders in the consultee suite provide a huge amount of misinformation about the sector, which stalls the regulators as they do not know how to deal with that and they cannot react to it. We fall into the gaps that are created by the prolonged conversations that Stuart Goodall mentioned, which gets us nowhere.

Willie McGhee: Emma Roddick was asking about the uncertainties around delivery. Soil carbon, peat soils and forestry are big uncertainties. We need to be more careful in our management of peat soils and properly fund and equip Forest Research with the tools to tell us what is happening.

Emma Roddick: I will go back to the point about moving the goalposts. A bit of sympathy was expressed with the situation that regulators are in. Whose behaviour would need to change in order to get to the point where there is consistency of approach and clarity?

David Robertson: Probably everyone in the process needs to change their behaviour. I think that we need more clarity on the intended outcomes of the schemes that we are proposing. Communities need to be properly informed of the facts on commercial and productive forestry, whatever type of planting is happening. At the moment, a lot of misinformation is coming out, which is confusing for all sides of the process. We need Forest Research and other parties to provide clear guidance on some of the aspects that are of concern to communities.

Edward Mountain: You will not be surprised by my question. I refer you to page 77 of annex 3 of the draft CCP, which says that there is a Government commitment to produce 258,000 hectares of new woodland by 2040. You have told us that there needs to be confidence in the market to achieve that target. I suggest that the Land Reform (Scotland) Act 2025 and the Natural Environment (Scotland) Bill might muddy the water—that is certainly the evidence that we heard.

Based on the figures that you suggest, and adding a small proportion of uplift, to achieve the Government's planting figure of 258,000 hectares, it will need to invest at least £880 million. That is based on today's figures. Given that costs might rise, we are probably looking at closer to £1.2 billion. Could you tell me where I will find that investment? According to the table on page 78 of annex 3, it is all good news; there are no costs. Are you confident that the plan is properly financed? A yes or no answer will do, as the convener is short of time.

Willie McGhee: No.

Stuart Goodall: At the moment, especially on the larger schemes, we are still faced with a situation in which, although we need to be able to hit the planting targets, the timeframe between planning and planting can be four to five years, whereas the commitment of funding is not; it is annual at best. We might have multi-annual funding over two or three years, but we are always in a situation in which the funding required is not clear—

Edward Mountain: With respect, that is a politician's answer. I am looking for a yes or no answer. Are you confident that the plan that is laid out by the Government is properly financed, and can you see the finance in that plan? Yes or no?

Stuart Goodall: Speaking back to a politician, the reason why you often do not give yes or no answers is because it is important to provide the context. I am not here to try to defend the Scottish Government. In fact, I am sure that plenty of people in it would say that they wish that I would shut up. If the question—rephrasing it, and you will tell me off for doing this—is whether the plan shows where the funding is coming from to be

able to deliver those targets and says that it will be there, then my answer is no. Do I believe that we have means to make it happen? Yes.

Edward Mountain: Different question; good pivot.

Jo Ellis: I agree that there is money from natural capital markets and private investment that matches up with what the Scottish Government is putting in to woodland creation. The money is there, but the continuity, certainty and underpinning of Scottish Government money is needed to make it possible. So, yes and no. Sorry.

David Robertson: I am, unsurprisingly, giving exactly the same answer. The money is not there on its own, but the private sector will bring the money to the party if it has certainty about the outcome.

Edward Mountain: In the interest of time, I will take all those answers as no.

The Convener: On that point, the draft plan estimates a £2 billion economic value of non-market benefits annually across the forest estate. Who is likely to see that financial benefit?

Jo Ellis: Those are non-market benefits to communities and people who live near to and use the forests. They include the biodiversity uplift from the forests and the water quality improvements. All those things will be seen. There is massive benefit from new woodland if we do it right.

Stuart Goodall: My understanding is that the plan also includes things such as timber production. That is one of the big things that we are looking at.

The Convener: I do not think that it does. The draft plan estimates an economic benefit of £2.1 billion to 2040, plus £2 billion economic value of non-market benefits. If figures are put in a plan, we have to have some indication of where they come from, because they justify the expenditure. That £2 billion is not timber product, but the non-market benefits.

11:45

Stuart Goodall: I apologise—it was about the £2 billion and the £2.1 billion being so close. I was referring to the fact that there is that economic benefit, which is a positive.

Non-market benefits are always a big challenge, because they are not necessarily financial benefits—they can be about clean air, clean water, tackling flooding and public access. Many positive things come out of forestry. How you value that often comes down to, “How long is a piece of string?” You could come up with a low figure or a very high figure.

Jo Ellis: I do not have access to how those benefits were valued, but I can see what their value is. There are established methods of valuing those and understanding the health benefit of clean air, for example. They are non-market, but they are huge and significant, and they add an awful lot. They are very important to take into account.

Willie McGhee: They have made them up.

The Convener: On that note, I thank you very much again. We have been incredibly restricted with time. We could probably have spent another two hours delving into the figures. Thank you for coming in and for your valued contribution.

I suspend the meeting for a five-minute comfort break and to connect our witnesses for the next panel, as they are all participating remotely.

11:46

Meeting suspended.

11:52

On resuming—

The Convener: Welcome back. We will now discuss the forestry aspect of the draft climate change plan with our next and final panel of non-governmental organisations and academics.

I welcome to the meeting Dr Mike Perks, principal scientist in climate change at Forest Research; Dr Ruth Mitchell, biodiversity and ecosystems group leader at the James Hutton Institute; and Alan McDonnell, from Trees for Life, who appears as the convener of Scottish Environment LINK’s woodland group. All of them are joining us remotely. Joining us in person is Dr Alessandro Gimona, who is a senior landscape scientist at the James Hutton Institute.

Before we start, I remind everyone that time is against us, so please try to make questions and answers succinct. You do not need to operate your microphones.

I will kick off on the woodland creation ambitions in the draft climate change plan. The ambitions are lower than those suggested in the Climate Change Committee’s advice. I would like you to explore the implications of that gap and whether the higher targets would be feasible. Given that gap, what will the trade-offs between the existing and higher targets mean in practice?

Dr Alessandro Gimona (James Hutton Institute): I can kick off. It might be feasible to increase the hectarage, but the big question is where. The way that I read it, the plan is a good overview of what needs to be achieved, but we do

not know from it exactly where the trees should or should not go.

Hectarage is not necessarily the thing to look at, but carbon targets might be. The carbon that you might achieve could be increased by clever targeting. There might also be an issue with increasing the hectarage, but that would depend on possible trade-offs with various other types of land use. That would be achievable with proper financing.

It is important that the eventual plan should give us a spatial idea of where the trees should go. The main reason for that is that, if we look only at the hectarage, we might end up putting trees in areas that are not suitable because they have organic or organic-rich soils, for example. I am keen to avoid perverse incentives that might mean that the hectarage that is reached would result in carbon loss in the first couple of decades. That is my perspective.

The Convener: The CCC has suggested a hectarage for nearly all trees, but, in its plan, the Scottish Government has suggested that it can deliver the same climate change benefits by planting a lesser area but planting it better.

Dr Gimona: It might be able to, but we do not know exactly what the spatial plan is.

Dr Ruth Mitchell (James Hutton Institute): I agree with Alessandro Gimona. The flaw with the plan is that it is focused on hectarage and it also assumes that the tree that is planted is the same wherever it is planted, but that is not true. The key message that I would like to get across is that it depends on where those trees are being planted. Not all trees, and not all trees in all places, will deliver the same benefits. We need to think carefully about where we plant them, particularly if we do so on organo-mineral soils, because there are great uncertainties about whether we will get net carbon gains in the first couple of decades, and that is relevant to our net zero timescales. It is noticeable that the CCC said in its seventh budget that its budgeting specifically assumed planting on mineral soils or avoiding organo-mineral soils.

The big challenge is, therefore, that the bill is currently focused on hectarage, but that is not going to guarantee delivery of any of the particular goods.

The Convener: Does that gap exist because the Scottish Government has looked into it in greater detail and decided that it can achieve the same outcome on less hectarage, because it is not planting on mineral soils or whatever? Alternatively, is it being driven by budget and what the Government thinks is a more pragmatic target?

Dr Mitchell: I do not know that I know enough to comment on that. Alessandro Gimona might be able to do so.

The Convener: Alan McDonnell has indicated that he wants to come in. Alan, maybe you could give your view on how the Government has come up with a different figure to the CCC and how it could justify that.

Alan McDonnell (Scottish Environment LINK): I am afraid that I have no idea about that at all, convener. I just raised my hand to endorse what Alessandro Gimona and Ruth Mitchell said about the need for a spatial plan.

I also want to point out that we can alleviate the pressure on planting if we enable natural regeneration at scale. We could scale up woodland expansion through nature. That would allow trees to set seed and grow themselves. It would deal with herbivore pressures and deliver a range of other positive, local economic and environmental outcomes. It is important that we do not become completely obsessed with planting as a way of achieving what we need to achieve.

The Convener: What are your estimates, and what do you base them on? How many hectares of trees are likely to regenerate naturally if we take appropriate action to achieve the climate change benefits? What is your estimate of how much land would be needed to deliver that, if we were to reduce planting?

12:00

Alan McDonnell: We have examined the existing data sets on woodland cover, and we have assumed a 50m expansion zone. If deer pressure is reduced to five per square kilometre on average nationally, that will deliver 320,000 hectares of new woodland over 10 years.

Dr Mike Perks (Forest Research): My understanding is that the difference is based on the underpinning model assumptions that are driven by the Climate Change Committee and the Scottish Government.

Fundamentally, the differences are based around the nuance in the productivity of the species assemblages that have been modelled. Are they incompatible? No. Are they compatible? Unlikely. There is noise in the data, because of the approaches that have been taken to model the net mitigation benefit from two different schemes.

The Convener: We have a question from Tim Eagle on the back of that. You have perhaps covered some of the response already, but I think it is still worth his asking the question.

Tim Eagle: I think that this has indeed mostly been answered, but I agree that it is worth asking

the question, as it is critical. To what extent is a broad-based planting target meaningful on its own?

We have referred to that already but, for certainty, could you answer that question again?

Dr Gimona: If you look at the plan as it has been presented, you will see that the LULUCF sector is balanced. Although we cannot see the exact calculations behind it to check whether everything makes sense—where trees are planted, what carbon loss there might be from the soil, and so on, which are issues that I would be keen to examine in more depth—the plan indicates that the sector is balanced. Therefore, according to the calculations, the trees and the peatland restoration are enough to compensate for the sources that exist in the sector. According to the calculation in the plan, there are enough trees planted, plus peatland restored, to make the LULUCF sector net zero, essentially.

Rhoda Grant: My question very much follows on from that. Are we doing the right thing now? Is the right tree being planted in the right place? Are the policies that we have—the climate change plan and other policies—enough to get the benefits that we want from carbon sequestration? I also refer to the other benefits, among which I would include offsetting carbon elsewhere, if we are using timber for building materials and so on. Do we have the balance right? Are we doing things right at the minute?

Dr Gimona: From my perspective, the issue of putting the right tree in the right place could be improved by being careful not to plant on organic-rich soils. Noting where grants have previously been considered and where the woodland carbon code might allow people to plant—probably because of a mismatch in data—we can see that there are many locations where there is a risk in putting forest on soils that are relatively less productive from the point of view of agriculture. People might think that they see opportunities to put in forest at such locations.

However, those soils are still pretty rich in carbon and the plantation operations can disrupt that soil and release the carbon. There should be more explicit targeting or avoiding—that is, negative targeting—for some kinds of soils. At the moment, peat that is 50cm thick is protected, but that is not enough with regard to not releasing the soil carbon, which negates part of the benefits of the carbon that is captured by the trees.

The Convener: Thank you. Would Mike Perks like to come in on that?

Rhoda Grant: Convener, can I ask a quick supplementary question on that point?

The Convener: Yes—go ahead, Rhoda.

Rhoda Grant: We heard earlier that we are maybe not planting enough timber because of concerns about the quality of the soil on which timber is being planted. Is that a negative, or can we sort that out quite quickly?

Dr Gimona: Is that question for me?

The Convener: Yes—sorry.

Dr Gimona: I am not a commercial forestry expert, but the quality of the timber is probably related to how fertile and productive the soil is. I expect that, on good soils, which are often mineral, there is better timber than on upland, organic, rich and often wet soils. In theory, there is not a conflict with timber when it comes to targeting mineral soils. However, there might be a conflict with other uses of the land, such as agriculture, grazing and so on.

Dr Perks: The balance of carbon benefits is between the disturbance of the soil carbon and the above-ground rate of growth. Our research on organo-mineral soils in northern England, which are similar to the soils in Scotland, shows that when a forest has been felled and replanted, the time in which to recapture the net benefit—when the carbon in the timber outweighs the disturbance in the soil for a second rotation—is relatively short. Therefore, the continued afforestation of organo-mineral soils where forests already exist provides a benefit. We can expect the same when we plant in new organo-mineral soils, although the time taken to achieve a net positive balance may be a little longer. That is because there is not the same nitrogen capital in the soil as when a forest is felled, because of the lack of decaying forestry residues that are retained on the site.

On the question of whether the match is correct, the balance will, of course, be more in our favour if we come down the hill and onto better-quality soils. Therefore, integrating trees into agricultural landscapes—not taking over agricultural landscapes, but integrating trees into those landscapes, on better quality soils—is a big win.

Dr Mitchell: As Mike Perks said, the sources of carbon losses are where the soil is disturbed, but the other source of carbon losses—which we do not always take into account—relates to the fact that the soil microbial community will also change. As the trees establish, the change in the soil microbial community will drive soil carbon losses, but a lot of our models do not currently take those losses into account.

The other point that I want to raise with respect to planting the right tree in the right place is that, in addition to the uncertainty around carbon benefits, we need to be clear about the biodiversity benefits—or the lack of such benefits. Different tree species will bring different biodiversity benefits, as not all trees are equal. Generally

speaking, we will have greater confidence in delivering biodiversity benefits if we plant native tree species.

However, it is not just about the tree species; it is also about the structure of the forests. Monocultures or even-aged plantations will not deliver as much benefit as woodlands with more structure. A move towards a different type of forest management, in which we have continuous-cover forestry and a greater range of ages and structures, will deliver a lot more benefit, so management is something that we need to think about.

My final point is about unintended consequences. This morning, we have heard about peatland restoration, but if we plant new tree species, we need to be aware of the risks of seed rain. Non-native conifers establishing themselves on some of the peatlands that we are restoring is a big issue at the moment. We need to also take that into account, because the objectives could conflict. We will be trying to increase our woodland cover, but, at the same time, we will be providing a source for seed rain on the high-carbon landscapes that we are restoring, and trees being established on them will dry them out and reduce the amount of carbon that they store.

The Convener: Thank you, Ruth.

Rhoda, do you have any follow-ups?

Rhoda Grant: No. I am fine with that, thanks.

Ariane Burgess: I want to ask a couple of questions about something that we have started to touch on already, which is the areas that should be prioritised for planting from a carbon perspective. We have already heard from Alessandro Gimona about mineral soils, arable land and field margins, but are there other areas that we should prioritise?

Dr Gimona: It depends on the point of view that we take. The plan rightly has a multifunctional perspective, rather than conceiving forest only as carbon storage. In that case, when it comes to things other than carbon, there is quite a lot of available evidence of where to plant to maximise the benefits. Examples include alleviating diffuse pollution, increasing the connectivity of existing forests and alleviating flood risk. It is fairly well understood where to plant.

We can draw from various studies. In general, the studies show that the multiple benefits tend to occur in the lowlands rather than the uplands, although that does not mean that the uplands should not get any trees. Because many ecosystem services are deficient in the lowlands due to intensive use of the land, there is a lot of benefit in having riparian forests or corridors and strategically placed woodlands in the lowlands as well as the uplands.

Dr Perks: I will give an example. We worked for Glasgow City Council with colleagues from the James Hutton Institute, which involved looking across the area to consider where woodland could contribute to climate mitigation objectives. We looked at native species, woodlands, habitat corridors and biodiversity benefits, but there are also opportunities for productive forests to maximise climate mitigation. The tools exist to do that—they are primarily based on ecological site classification, which is the fundamental forestry tool that matches the right tree with the right site type. Expanding such activity across the Scottish landscape would be very beneficial in showing where the benefits for multiple outcomes from forestry could come from.

Dr Mitchell: As Mike Perks and Alessandro Gimona have said, we have a lot of tools, but linking them through and using them as we develop the Scottish land use strategy will be really key, because the issue boils down to spatial effects and where we plant.

Ariane Burgess: We have established where we should prioritise: arable land, field margins, riparian corridors, urban fringe—which Mike Perks talked about in relation to Glasgow—and, potentially, brownfield sites. Does the draft climate change plan, or do the existing policies and funding streams, actually prioritise those areas?

12:15

Dr Gimona: I did not see any explicit spatial prioritisation in the plan. Maybe there is some mention of it, but there is no detailed study in the plan. I think that the plan is a good starting point to understand where we want to have multifunctional forest in order to fulfil the objectives. The land use strategy mandates multifunctional land use again, so perhaps the regional land use partnerships could provide details of where exactly we could have the multifunctional forest and details of the multiple benefits from productive forest that delivers various ecosystem services. The policy framework is there if we want to dig deeper and do the detailed studies to fulfil the objectives.

The Convener: Regional land use partnerships have been suggested as the solution to many of these issues. Are those partnerships delivering any policy at the moment? I do not like the term “talking shops”, but to some people that is how they appear, because they are not actually delivering anything on the ground. From what I hear, they will be the go-to groups that will have to deliver some of this stuff. Are they in a position to do that, given the timescales that will be required?

Dr Gimona: I do not know enough detail of the activities of all the partnerships to say no or yes. I am not qualified to answer that question, but I think that that would be an obvious vehicle to deliver the plans.

The Convener: Alan McDonnell, you are smiling. Do you want to comment on that?

Alan McDonnell: In my limited experience of RLUPs, they are not delivering. In practice, they are not really facilitating delivery on the ground. I do not think they are resourced enough. We will need more local conversations about how to approach land-use trade-offs on the ground, so that they are closer to the issues there.

To go back to Ariane Burgess's question, I think that there are quite high costs for establishing woodland on some of the areas that we are targeting, and there is much economic competition, therefore the funding is currently inadequate to achieve the outcomes.

Ariane Burgess: Alan, you touched on the trade-offs, which I want to come back on. We want to establish woodland in some areas, but we could be using that land for other things, and there could be other benefits. It would be interesting to hear about that.

Dr Gimona, when you talked earlier about planting, you were very careful to mention that we would not be planting on arable land and that we would not be moving out farming; the planting would be integrated. You talked well about the multifunctional land use strategy, which would be more integrated rather than moving away from the idea of trade-offs and would look at that nuanced approach of integration.

Dr Gimona: Various studies show how to target in that way, including some that were done at the James Hutton Institute. The land is available, as far as we can see. In the lowlands, it would be more a case of integrating agroforestry with the croplands, and silvo-pastoral activities in grazing land. One important integration that would achieve a double target would be integrating the woodlands with grazing land and reducing the stocking rates. Reducing the sources of emissions is a very effective way of achieving a lasting reduction in greenhouse gases. That is an opportunity that the Government might want to consider.

The other type of integration would be in the uplands, where there are opportunities for forests to reduce flooding and erosion risk, which would be an easy way to create multiple benefits. Something that has not been talked about in the context of benefits and trade-offs but that is worth bringing up is the fact that some issues are probably still underresearched. That includes the fire risk of the forests that we are going to plant, which we have to take into account. Catchments in some areas where we plant lots of forests might be affected by drought in the summer. We would benefit if we could better understand the trade-offs that we might face in the future.

Alan McDonnell: We tend to naturally compartmentalise different land uses. Alessandro Gimona just mentioned the example of planting trees on farms, which is a good example of how we can use the same piece of land for both things. I think that we need to have much more imagination about those kinds of solutions. In forestry, not necessarily looking at farms alone, actively managing and thinning forests can maintain cover so that we do not have the sudden releases of soil carbon that we do when a large clear fell takes place. We can then maintain the benefits of the forest for biodiversity, natural flood management and soil conservation. All those multiple benefits are possible if we integrate our management much more. The practices are there and they have been approved. In forestry, we have some polarisation between large-scale commercial forestry or non-intervention native woodland. Although we need both of those types of forest, we also need many more types in the middle ground between them.

Ariane Burgess: I asked a question earlier about whether funding streams support what we are trying to do. Certainly, from my conversations, I do not have a sense that existing policies and funding streams support the kind of integrated approach that you have described. Alan McDonnell, can I hear a little more from you about that?

Alan McDonnell: Sure. I agree with you. If we are going to see continuous cover approaches, there needs to be some upskilling and support to transition some of our existing plantation woodlands and create new woodlands that are capable of providing long-term productive forestry with continuous cover and all the benefits of maintaining that cover using more diverse species. The other vital thing about continuous cover, which is an absolute requirement for the future, is that it creates more resilient forests. If our forests are more diverse, they will be able to survive climate change and the pests and diseases that it will bring. That will be built into their future, and they will restore biodiversity at the same time.

I will make another plug for the natural regeneration of woodlands, which will also be vital in the future. It will maintain and upscale their carbon storage and their ability to sequester carbon, but it will also give us more options for the future in how we can manage the land to support ecosystems and their biodiversity benefits. Economically, more local community use of smaller scale forestry and timber-based

businesses can create more benefits if the landscape is naturally regenerating itself and businesses do not constantly need to operate at a huge scale in order to turn a profit and be viable.

Dr Perks: As the largest land manager on behalf of the Scottish Government, my organisation, Forest Research, has worked extensively with Scottish Forestry and Forestry and Land Scotland, in particular, to look at multiple objectives and the delivery of different ecosystem services in a project called next 100, which is still live. That targeted approach allows us to find the areas that can provide us with maximum carbon sequestration, so that we can identify where to put productive carbon powerhouse forestry, which frees up land opportunities to deliver against other objectives in other locations. We should also note that the amount of individual species that can be planted in any one scheme is well regulated. The targets have shifted to a better balance in recent years, towards a higher broadleaf component. Forestry and Land Scotland's land targets are more ambitious. As Alessandro Gimona put it, it involves a spatial approach. In the national forest estate, that is very much in hand, both for existing forestry and new opportunities.

The key constraint to forest management in Scotland is wind. There is a restricted number of locations where existing forestry can be converted into something that is multistructural because of the wind risk. It is much easier to start with new forestry: if we have an objective for a longer-term multistructured stand, with regular interventions, the stand becomes accustomed to the wind climate. It is harder to take an existing forest stand that is 30 years old and decide to do continuous cover forestry or some other forest development type, whether that is two species in coexistence or blocky patterns and so on. Managing that with the current resource is much more difficult because of the risk of failure of the existing forest due to the wind climate.

Alasdair Allan: A lot of the conversation has been about what it means to have the right tree in the right place. The draft climate change plan has factored in a

"10% 'stretch' in CO2 removals"

from woodland creation due to

"improved location, species and management of trees."

Is that a fair assumption? Do you have views on its workability?

Dr Gimona: As far as I can tell, it is probably a fair assumption. It goes back to the fact that the plan does not provide a detailed spatial plan for where things can go. There are probably opportunities to have that 10 per cent stretch if everything is well targeted; equally—I say this in relation to the forest grant that exists now, too—there is a risk of negating that 10 per cent by planting in the wrong place. With good spatial targeting, we can both avoid the risks and reap the rewards.

Dr Perks: Fundamentally, 10 per cent is achievable. It is about where the land availability is. It is well known that species must be matched to site; the diversification of the species component will be likely to provide an insurance, and it is a key part of Forestry and Land Scotland's policies.

Dr Mitchell: My concern is that, since the targets are all in hectares, although we might be able to get a 10 per cent stretch, the focus will be on how many hectares we have planted. I have seen that happen in England through my work with the Department for Environment, Food and Rural Affairs. A lot of political effort is going into how many hectares we have planted, which does not take into account whether that is actually delivering the carbon storage. The target needs to be the carbon stored, not the hectares planted.

Emma Roddick: I am curious about what is needed for a just transition for Scotland's land use sectors. We heard from the witnesses on the previous panel about the interaction between agriculture and forestry. Does more need to be done, and is that properly evidenced in the draft plan?

Dr Gimona: The economic aspects are not my area of expertise. I can say that, generically, there needs to be adequate support for any potential losers in the transition, but I do not have a deep perspective there.

The Convener: Would anyone else like to come in on that?

Alan McDonnell: I would echo what the witnesses on the previous panel said. There was a mention of providing more support for tenant farmers to bring trees on to farms and get the farming benefits from that. I also note what was said about sporting communities making use of woodland and forestry and the development of businesses at the local entrepreneurship scale. There could be more public support there.

It will be important to take time in moving towards a more strategic blend of diversified forestry. Facilitating that through training will be key.

12:30

Lastly, I will keep banging the drum about the scope of natural regeneration. In discussing the Natural Environment (Scotland) Bill, the committee has already discussed potential support for deer managers and the just transition that they could

make by moving to an enabling level of deer and herbivore management for the landscape. That would provide multiple benefits, which would grow as time passes.

The Convener: Does anyone else wish to say anything about the just transition?

Ariane Burgess: As Alan McDonnell was talking, it struck me that, when local authorities across Scotland are writing their woodland and forestry strategies, part of that will involve delivering on climate. Is that part of the just transition? How do we ensure that local authorities are involved in the climate change plan? It would be great if anyone could speak about that in any way.

Dr Gimona: I do not know enough about that.

Alan McDonnell: Ruth Mitchell and Alessandro Gimona have discussed the need for more of a spatial element in the climate change plan. We have also talked about RLOPs. We need to get into that level of strategic forest plans by region, using them to integrate across different policy agendas, in order to develop a more strategic approach.

Dr Mitchell: Following on from the previous question on the just transition, I think that we need to be careful to ensure that it is equitable in terms of the financial benefits that people receive. Other land uses will also deliver carbon benefits and biodiversity benefits, and we could end up with unintended consequences driven by the financial benefits of tree planting, whereas many upland soils provide huge carbon storage in themselves. We need to be sure that other land uses are equitably supported for the benefits that they bring.

The Convener: I will finish off with this question. One theme that has run through our discussion is the need for more co-operation and partnerships, whether those are land use partnerships, regional forest partnerships or whatever. The new draft climate change plan before us has taken over from a previous climate change plan. Are we in the right place to hit the ground running? Are we sufficiently far advanced in putting partnerships and plans in place to hit the ground running when the draft plan is agreed, or should we be much further ahead at this point, given that we have had previous climate change plans?

Dr Gimona: I am not an expert in the situation with partnerships everywhere, but I can see that there is a mixed picture. Some partnerships are quite advanced and are possibly well resourced—others less so. It is a case of understanding what barriers and obstacles are slowing down the process.

Dr Perks: In my experience from working with the greater Glasgow authorities and, through the James Hutton Institute, with Perth and Kinross Council, there is some very forward thinking, but it is not applied across the piece. I am talking about providing advice to local authority planning groups as to where the opportunities lie. I do not understand how you would roll that out more widely. Clearly, however, there is a model there.

The Convener: I have a supplementary question on that comment, Mike. Some aspects will have to be delivered by local authorities. Is there the experience or the capacity within local authorities to help to develop plans and put them into practice?

Dr Perks: By engaging with the research community, we can demonstrate that there is clearly an opportunity to deliver against that ambition.

Dr Gimona: I would agree completely with what Mike Perks has said. I can imagine that there is a capacity-building issue, so engagement with the research community would be really important. We are all making tools to facilitate the implementation of plans, as capacity building is not at such a high level.

The Convener: We have no further questions. Thank you very much for joining us today. Your commitment is very much appreciated, and your evidence will help us when we put together our response to the draft climate change plan.

That concludes our business in public today.

12:35

Meeting continued in private until 12:50.

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