OFFICIAL REPORT
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Rural Affairs and Islands Committee

Wednesday 28 January 2026

Session 6

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RURAL AFFAIRS AND ISLANDS COMMITTEE
4th 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:

Esther Brooker (Scottish Environment LINK)
Brendan Callaghan (Scottish Forestry)
Dr Robin Cook (University of Strathclyde)
Rea Cris (Open Seas)
Tim Ellis (Scottish Government)
Mairi Gougeon (Cabinet Secretary for Rural Affairs, Land Reform and Islands)
Megan Hamill (Community of Arran Seabed Trust)
Alastair Hamilton (Regional Inshore Fisheries Groups Network)
Professor Michael Heath (University of Strathclyde)
John Kerr (Scottish Government)
Kenneth MacNab (Clyde Fishermen's Association)
Sean McIlwraith (Clyde Fishermen's Association)
Alex Watson Crook (Sustainable Inshore Fisheries Trust)
Elaine Whyte (Clyde Fishermen's Association)

CLERK TO THE COMMITTEE

Emma Johnston

LOCATION

The Mary Fairfax Somerville Room (CR2)

Scottish Parliament

Rural Affairs and Islands Committee

Wednesday 28 January 2026

[The Convener opened the meeting at 09:16]

Decision on Taking Business in Private

The Convener (Finlay Carson): Good morning, and welcome to the fourth meeting of the Rural Affairs and Islands Committee in 2026. Before we begin, I ask everyone to ensure that their electronic devices are switched to silent.

The first item on the agenda is consideration of whether to take item 6 in private. Do members agree to do so?

Members *indicated agreement*.

Draft Climate Change Plan

The Convener: The second item on the agenda is an evidence session on the Scottish Government's draft climate change plan. I welcome to the meeting Mairi Gougeon, Cabinet Secretary for Rural Affairs, Land Reform and Islands. She is joined by officials: Brendan Callaghan, interim chief executive, Scottish Forestry; Tim Ellis, deputy director, future environment division, Scottish Government; and John Kerr, head of agricultural policy, Scottish Government.

We have just under two hours to discuss this item, and we have quite a few questions to get through. Edward Mountain will join us later as a reporter for the Net Zero, Energy and Transport Committee, so we will ask him some questions at the end of the session. I ask the cabinet secretary to give us a short opening statement.

The Cabinet Secretary for Rural Affairs, Land Reform and Islands (Mairi Gougeon): Thank you for having me along to speak to the draft climate change plan. The way that we use our land is absolutely central to tackling climate change, and it also matters deeply for our economy, our communities and the natural environment more broadly. The United Kingdom Climate Change Committee has made it clear that our land assets are one of the key reasons why Scotland could aim for net zero by 2045.

The draft climate change plan sets out how we intend to support an agricultural sector that continues to produce high-quality food while also reducing emissions, adapting to climate change and restoring nature. It takes a whole-system approach by looking not only at individual policies but at how land use fits together as a coherent picture. That includes looking at forestry, creating the right woodlands in the right places and protecting and restoring our peatlands so that they deliver for climate, nature and people.

Agriculture is vital to Scotland's economy. It underpins our world-class food and drink industry, supports more than 67,000 jobs and sits at the heart of our rural communities. The plan sets out a comprehensive package to cut agricultural emissions while building a sector that is resilient, productive and profitable. We continue to design agricultural reform with the sector, because we know that achieving our climate and nature goals depends on successful farming and crofting businesses, which is why direct payments remain such an important part of our approach.

Many farmers and crofters are already showing what is possible by adopting low-carbon practices, improving efficiency, planting trees and restoring peatlands. We want to scale up that momentum

across the whole sector and move towards Scotland becoming a global leader in sustainable and regenerative agriculture. We also know that our people are just as important as policies, which is why advice, skills support and training remain central to helping farmers and crofters to adopt low-carbon approaches with confidence.

Forestry also has a major role to play. The draft plan includes an ambitious but achievable woodland creation programme that will support net zero, enhance nature, benefit local communities and provide new opportunities for farmers to integrate trees into their businesses.

Our peatlands, too, are vital. Around 70 per cent of Scotland's peatlands are degraded, and restoring them will be essential if we are to meet our climate and nature ambitions. The plan sets out a long-term goal to restore more than 400,000 hectares of peatland, which, in combination with other measures proposed, would see peatland emissions almost halved by 2040, with a strong focus on the highest-emitting areas.

On the whole, the draft climate change plan sets out ambitious policies and proposals across agriculture, forestry and peatlands that I believe will deliver on not only our climate but our nature ambitions. I am happy to take any questions that the committee might have.

The Convener: Thank you very much, cabinet secretary.

I have to say that the position is not good; in fact, it is very concerning. We have an agriculture sector that is undoubtedly willing to step up to the mark and that appreciates the challenges around biodiversity and climate change, but the fact is that we have made very little progress since 2020. Emissions from agriculture are 20 per cent higher than was anticipated at this point.

Some stakeholders have said that that is due to stalling agriculture reform—it is certainly not through any lack of ambition on the part of the farming community. Given the lack of transparency and certainty, do you agree with those stakeholders that the reason for emissions being 20 per cent higher than was anticipated comes down to stalling agriculture reform?

Mairi Gougeon: I acknowledge the frustrations that have been expressed by some stakeholders, and I appreciate that there is always an ambition to go further and to do more. However, it is important to remember the overall context and the position that we have been in since the last plan came out and to consider everything that has happened in that time.

For a start, we left the European Union and we committed to having a period of stability and simplicity for our agriculture sector, which I think was the right thing to do. We needed to bring forward legislation at that point so that we could, through retained EU law, continue the basis for making payments to the sector. Of course, we then had to design a new framework for what support would look like, carry out a consultation on that, and introduce legislation to give us the powers to implement that framework, which we will need for the future.

That work has taken a bit of time, but I believe that, between that and the Agriculture and Rural Communities (Scotland) Act 2024, we have been building those foundations, particularly with the policies and proposals in the plan relating to our tenant farmers' ability to play a part in addressing climate and nature issues, as well as the support schemes that we have. We have also been building that foundation through the land reform legislation that was recently passed by the Parliament.

We have been using the time to build those strong foundations, to undertake engagement with the industry and to work with other stakeholders. After all, when we design future policy, we want to ensure that it works for our farmers on the ground.

There is another reason why I would not say that things have stalled. As the committee will, no doubt, be aware—I know that the Minister for Agriculture and Connectivity has appeared before you to talk about these things—there are other changes that have been implemented or that will be coming into effect. We have seen the whole farm plan conditions, ecological focus areas will be coming into play, and there are the conditions in the Scottish suckler beef support scheme.

We are seeing more action being taken, and we have also published as much information as possible on schemes that are changing and on some of the measures that we might look to introduce in the future through our agricultural reform route map. This is all about building strong foundations in the coming years, so that we can ramp up progress in the next period of the plan.

The Convener: You say that there has been lots of legislation. However, since the plan was updated in 2020, legislation has been introduced but none of it has been used; indeed, most of the legislation in the 2024 act is not being used. We are also legislating for legacy common agricultural policy schemes.

We are now in 2026 and emissions are 20 per cent higher than the level that we thought that they would be back in 2020. Moreover, we heard from Vera Eory that the Scottish Government's draft plan will leave agricultural emissions significantly higher than the path that had been advised.

You say that you are building a strong foundation, but there is no evidence of that at all, particularly given that we have just had a budget that shows a drop in direct payments. How on earth are we going to pull this back and support agriculture to get anywhere near where the Climate Change Committee suggests we should be?

Mairi Gougeon: There are a number of different points there, which I will address as best I can. You made a point about the legislation. You are right: the legislation is in place. My point in mentioning the overall context was about the consultation that we need to undertake to develop the future framework. We passed the 2024 act, which we will be coming to implement. We needed the earlier legislation to continue the basis on which we are currently making support payments.

You made a point about where we are in relation to the climate change plan from 2020. It is important to remember that the overall emissions trajectory is still heading down. We are 13 per cent down on where we were against the baseline. It is a matter of building on the strong foundations that we introduced.

The Convener: Could you explain that point to me?

Mairi Gougeon: We are now 13 per cent down from the overall baseline of emissions in 1990.

The Convener: In relation to agriculture?

Mairi Gougeon: Yes.

The Convener: Our papers suggest that levels are 20 per cent higher than the Government anticipated.

Mairi Gougeon: I think that we are talking about two different things. We are 13 per cent down on the overall baseline from 1990 but, potentially—

The Convener: I beg your pardon—that is from 1990.

Mairi Gougeon: That is potentially down on what the projections were from the point of the plan in 2020, if that makes sense.

The Convener: Okay. Thank you.

Mairi Gougeon: The fundamental thing with the approach that we have taken is that we are still maintaining stability for the sector in trying to maintain certainty, by providing the underpinning payments so that the sector knows that the support is there—so that it knows what is coming.

In the budget discussion last week, we talked about some of the investment that is taking place in other areas of the budget, which I think is hugely important. There is the investment in skills, with the new funding that has been identified for food and farming skills, as we touched on last week. It is important that we continue to invest in that. As we have set out, that is in the plan as well as in our route map. We intend to deliver the new agriculture knowledge and innovation system from 2027, which involves continuous professional development and building on the skills and advice that are available. Investing in that and building on those foundations will be helpful for the sector in driving forward our goal to become a global leader in sustainable and regenerative agriculture.

The Convener: I do not think that we are quite getting to the crux of the question of why the levels for agriculture are 20 per cent higher than anticipated. We had a representative of the Scottish Agricultural Organisation Society before us a few weeks ago, who said that that could be because the Scottish Government does not want

> "to deviate too far from the voice of the industry … so it tends not to do it … If you stay too close and too tight, you end up with only what the industry is able to publicly say that it is willing to do."—[*Official Report, Rural Affairs and Islands Committee*, 14 January 2026; c 11.]

Is there an issue there? What is the reason for the difference between the Government's ambition and the current reality?

Mairi Gougeon: I do not agree with that statement. The critical thing for me in my role—and our position has been clear the whole way through this—is that, ultimately, we want to deliver a new future framework of support that works with our farmers and crofters and that we know is deliverable.

I recognise some of the criticisms that we have received about the pace and scale of change, but we have to balance that with the need to take people along with us on that journey. I do not agree with that comment about being too close to industry. I, of course, engage with the farming sector as much as I do with environmental organisations. I know that there has been criticism about the scale of change, but we have to balance that with the pace at which people can move. We want to make progress and take people along with us on the journey while we continue to support the sector to have productive, resilient businesses. That is the approach that we have taken.

It is not as if we are standing still. In one of my earlier responses, I listed just some of the changes that we have implemented and that will be coming into play over the coming years. We are making progress, but the next few years will be vital in building momentum as we look to later years of the plan.

09:30

Ariane Burgess (Highlands and Islands) (Green): Before I ask my main question, I want to

understand what climate modelling we are basing the climate plan on. What data is being used, for instance?

Mairi Gougeon: Do you mean in terms of some of the policies and proposals that we have set out in the plan?

Ariane Burgess: I mean in terms of the very big picture of everything. Is the modelling based on Met Office data? The Government has built this plan, but I am concerned about whether it is based on the most up-to-date climate modelling. I am aware that modelling projections have changed—change has sped up and there are other things in the mix. For example, I know that the Scottish Environment Protection Agency is not your domain, but my understanding is that its approach is based on much older data and we are not really taking into account the level of flooding and the problems that we are going to have with that. I am concerned that we are building a plan that is based on a certain climate baseline or modelling, when the climate will be even worse than that.

Mairi Gougeon: I might bring in my officials on that, because it is an important question about the basis on which we are bringing forward the policies and proposals in the plan.

One important example relates to forestry. No doubt, we will come on to some of the modelling on that, but there is a slight difference between what was set out in the Climate Change Committee's recommendations and the pathway that we set out in the draft climate change plan. That is because the modelling that we use is, I would say, more highly detailed. It is from Forest Research, which is the UK body that looks at that. The Climate Change Committee was reliant on external analysis, which I believe was not as detailed as the analysis that we use. That is one example of where we have used the best data and the data that is most relevant in a Scottish context.

Brendan Callaghan can say a bit more about that, and then Tim Ellis and John Kerr can give their perspectives on the data and modelling.

Brendan Callaghan (Scottish Forestry): It might be helpful to explain that the land use and land use change chapter modelling, which includes forestry and peatland, is carried out by the UK Government Department for Energy Security and Net Zero. It uses the UK Centre for Ecology and Hydrology, which, in turn, draws on a wide range of data sources. For forestry, the main ones are the national inventory of woodlands and trees and the Forest Research modelling tools. Those capture existing woodlands as they are, and that derives the baseline. It gives an understanding of the range of species, the rates at which they are growing, the type of land and the type of soils. There is then a process of blending in the management that is currently forecast, such as the level of felling, how forests are replanted after they are felled and how quickly that is done, and the level of soil disturbance. There is also modelling of the degrading of the brash, branches and roots.

All of that is captured in the modelling, and that is in the baseline. The woodland creation proposals are not included in that—they are layered on top. If you look at the analytical annex, you will see that woodland creation takes quite a long time to feature in the climate change plan, because trees do not grow very quickly for the first five or 10 years.

That is a basic overview. However, as the cabinet secretary highlighted, the Climate Change Committee, in reaching its conclusions, did not have access to quite the same level of data and modelling. For example, it proposed a more gradual increase in woodland creation. What is critical if we are to have an impact as soon as we can is to plant trees now, because there is a 10 to 15-year delay.

The main difference between the Climate Change Committee recommendation and the Scottish Government draft climate change plan is that our approach is earlier and more up front. We are trying to get to the higher target more quickly, but we are not going as high as the Climate Change Committee suggested towards the end of the period. Bearing in mind that it takes 10 to 15 years for the impact of any trees planted to feed through, we think that that is the right thing to do, and it is very much reflected in the modelling that we had access to.

Ariane Burgess: I am a bit concerned that we have a lot to get through. That was helpful, Brendan, but I think that it was about the emissions from forestry and the sequestration through trees. Maybe you can write to the committee on this, but the point that I am trying to get at is about the fundamental climate modelling that we are basing everything on. We have to have a foundation of assumptions on the climate impacts. We are starting to realise that change is happening much faster. We have developed a climate change plan that is looking at our carbon emissions and sequestration, but have we based it on the right model in the first place? That is what I am looking for. Maybe I should leave it there and you can write to the committee.

The Convener: I would prefer that we concentrate on the agricultural and land use side of the plan. The Net Zero, Energy and Transport Committee may wish to ask that question.

Mairi Gougeon: We can send the information to the committee, if that would be helpful.

Ariane Burgess: That would be super, thank you.

My question is about voluntary uptake. The draft plan assumes a 45 per cent uptake of low-carbon farming measures, which will be voluntary. It also says that the approach may be "beyond an achievable level", which is a bit concerning. Witnesses who gave evidence on 14 January, particularly Dr Vera Eory and Professor Dave Reay, were explicit in their view that a subsidy-only voluntary approach is weak and financially unsustainable at scale. They stressed the need for a "credible policy threat"; in other words, we would need stronger measures that are not voluntary. I raised that area with them, as I am concerned that we are basing the transformation on a high level of voluntary uptake. What do we do if that does not happen? What gives you confidence that the emissions will still reduce, and what is the Government's back-up plan if the voluntary schemes do not deliver?

Mairi Gougeon: Our focus is, quite rightly, on delivering the policies and proposals that have been set out in the plan. I emphasise that the figure of 45 per cent uptake of measures by 2040 was based on robust research commissioned through ClimateXChange and delivered by Scotland's Rural College. It is challenging, but the research sets out that it is believed to be achievable.

Right across Scotland, many farmers and crofters are already undertaking positive measures in relation to climate and nature, such as the use of sexed semen in dairy animal health measures and the reduction in calving intervals. Some suppliers in the market are also instigating such changes. My focus is very much on delivering what we have set out in the climate change plan, rather than working in the meantime on back-up policies, if you see what I mean. It is also important to remember that we have to monitor and provide annual updates on our progress and our targets. There will be another plan in five years' time, so we will have to look at it very closely to ensure that we are continuing to deliver on the ambitions that we set out in the draft plan.

Ariane Burgess: Do you have clear early warning signs in the plan, as well as the monitoring processes? Is there something in place that would trigger a new plan, or is there anything that would make you think, "That's a red flag," or, "That's a warning sign that we're not on track"?

Mairi Gougeon: That is important, especially when we are looking at agriculture. What will happen in future carbon budget periods, as opposed to what happens in the coming five years, will have the biggest impact on emissions reductions. As I set out in previous responses, it is about us building on the foundations and, ultimately, preparing for the full implementation of the future framework of support.

John, do you want to add anything else about monitoring?

John Kerr (Scottish Government): One of the key parts of the agricultural reform programme that we are working on with the industry is the monitoring and evaluation framework, which will provide early feedback on the uptake of measures and the impact that those measures are having on the outcomes that we are looking for them to deliver, which, in this case, are the climate-related impacts.

Ariane Burgess: Monitoring will help us to know whether we are doing the right thing and how to course correct.

John Kerr: Yes.

Ariane Burgess: I notice that the first phase of the plan takes us to 2030, which will be the year before an election, so in December 2030 we could be in a situation similar to the one that we are in now, at the end of a parliamentary session. How things have been set up concerns me, because the parliamentary session will be wrapping up at that point—as is the case today—and there will be a compressed amount of time to properly scrutinise the plan.

Mairi Gougeon: Unfortunately, that is the cycle that we are in. However, we must provide annual updates, which give the opportunity to assess progress against what has been set out.

The Convener: When will the Parliament and wider stakeholders get to see the future framework that you mentioned? I suppose that you could call it the rural support plan.

Mairi Gougeon: The Minister for Agriculture and Connectivity has written to the committee to say that, unfortunately, publication of the rural support plan will be delayed because of the delayed budget process. As I outlined to the committee last week, once we have completed that process, we will publish the rural support plan.

The Convener: Roughly, how long will we have to wait? Will the plan be published before the election or after it?

Mairi Gougeon: It will be published before the election.

The Convener: Thank you.

Alasdair Allan (Na h-Eileanan an Iar) (SNP): Can you say a bit more about the Government's attitude and approach to getting a voluntary uptake of 45 per cent? In particular, what will that mean for partnership working between the Government and farmers?

Mairi Gougeon: A partnership approach is really important in providing underpinning support for the industry and in incentivising uptake of some of the measures.

In relation to the measures that we have introduced so far, we have attached conditions for people to receive support through the whole farm plan, and those conditions will ramp up in the coming years. We expect everyone to have in place all the relevant plans that we have set out by 2028. We also have conditions to prevent the deterioration of some of our most valuable land and to protect our peatlands. We introduced a good agricultural and environmental condition to prevent any further erosion or damage in that regard.

The fundamental principle of our approach is that we very much want to work with farmers and crofters, because we need to take everybody with us on this journey so that we provide a just transition and help businesses to become more resilient to the climate challenges that we face.

Alasdair Allan: You are clearly making a virtue of the partnership approach, but is there a backstop if that is not sufficient? Would you consider encompassing other measures if that approach did not work?

Mairi Gougeon: We are focused on the measures that we want to introduce and on the implementation of the four-tier framework. Ultimately, one of the bonuses of the new system compared with the operation of the common agricultural policy is that there will be flexibility between the different tiers. Under the future framework of support, we will be able to change things if we feel that changes are needed. We will work with the industry on that, and we will monitor and evaluate the different measures that we have introduced to see how things are moving.

We have not worked up a particular backstop at the moment, because we want to work with the industry and invest in the tier 4 measures and skills. We are providing upskilling and training opportunities, and we want the sector to feel that it has every opportunity to take part in building the support framework.

Alasdair Allan: We are living in a world with new pressures in relation to the trade deals that are being struck with other countries in the post-Brexit environment. How alive does the Government have to be to the pressures on the industry when forming such a partnership?

09:45

Mairi Gougeon: Much of that is, of course, outwith our control. That is why I feel that our approach of providing some stability through many of the challenges that we have faced in previous years has been the right one. It also gives the sector confidence that the underpinning support that we have committed to through direct payments will remain in place. We very much intend to work with the sector going forward.

The Convener: We have touched on the reliance on meeting the 45 per cent voluntary uptake target. If that is not achievable, one of our previous witnesses suggested that there needed to be a “credible policy threat” that would have, in the long term, an impact—for example, financially—and would affect pricing policy. Should that level of uptake not be reached, are you considering some form of taxation or emissions trading in the future?

Mairi Gougeon: My focus is on ensuring that we reach that level of uptake as far as possible. I reiterate that the target of 45 per cent uptake by 2040 is based on research, which sets out that it is believed to be achievable, so it is right that our focus is ultimately on that.

The Convener: Most emission reductions for agriculture are back-loaded to the end of the 2040 period. Is that because you recognise that there is a risk that the 45 per cent voluntary uptake might not be achievable?

Mairi Gougeon: No, it is because it is believed that the target is achievable by that time.

That is looking into the future. As we have touched on, there will be monitoring during that time. Also, we will set out other climate change plans in that period and those will provide updates.

The 45 per cent uptake target is very much the focus, and it is believed to be achievable on the basis of the research that has been commissioned.

Beatrice Wishart (Shetland Islands) (LD): Good morning. My question is about the uptake of low-carbon measures. We heard at the evidence session a couple of weeks ago that there does not seem to be a clear idea of mitigation measures that would be implemented on farms and crofts to reduce emissions. The witness from the Scottish Agricultural Organisation Society highlighted that a list of mitigation measures is missing. Will you explain why there is not a list of mitigation measures in the draft CCP?

Mairi Gougeon: Mitigation measures were identified and published through ClimateXChange-commissioned research that was carried out by the SRUC. We could consider setting out more information on that in the plan. What has been done in relation to those measures has essentially formed the basis of many of the actions that we have already taken forward so far or that are already published. In 2023, we published a list of measures on the Government’s website that were

potentially going to be used as part of tier 2 of the framework. That is where some of the measures emanated from.

Some of the measures are built into the work that we have been developing on the code of practice on sustainable and regenerative agriculture, and we published the first version of that last summer. Measures that have been considered through the ecological focus areas, along with some of the changes that are being implemented this year and next, are being examined as part of that work, too.

Beatrice Wishart: Will there be a list available in the final CCP?

Mairi Gougeon: I do not think that there will be any problem in publishing those measures in the CCP.

Beatrice Wishart: People will be left in the dark if they do not know what is being sought, which direction the measures are going in and how to start implementing them.

Mairi Gougeon: As I said, a lot of that information has been the foundation of the approach that we have developed so far and is part of what we have published. We can look to publish that in the final version of the plan.

Rhoda Grant (Highlands and Islands) (Lab): A lot of farmers and crofters tell us that, when they audit their carbon emissions, the mitigation that they take means that they are net zero, but that does not seem to add together. Has the Scottish Government done any more work on the mitigations that are already in place to take account of them when cutting farm and croft emissions?

Mairi Gougeon: Sorry—I do not quite understand the question in relation to carbon audits. Perhaps you could repeat it, if you do not mind.

Rhoda Grant: People who carry out their own carbon audits may be taking mitigation measures—not necessarily tree planting, cutting animal numbers or things like that, but generating electricity or doing other things on their land. However, the carbon audits do not seem to take that activity into account. Given that such activity helps to offset the carbon that they emit, will there be measures to take that into account so that the various organisations that are, in reality, net zero are recognised as such?

Mairi Gougeon: I absolutely appreciate your point. I will turn to John Kerr for some of the specifics in relation to the carbon audit process and how some of that activity is recognised.

There is a wider issue in that some of the work that is undertaken in agriculture, such as tree planting, falls within another envelope in the inventory. When we look at it from this perspective, therefore, it appears that the sector does not get proper recognition for some of the actions that it has undertaken. Unfortunately, the way in which that is reported is largely outwith our control. John Kerr will be able to give a bit more information on the specifics of the carbon audit.

John Kerr: Ms Grant is right in that there are businesses that have multiple things going on across their landholdings, such as agricultural activity or tree planting, or—as she said—renewable energy production. The carbon audit process for the agricultural part of the business is designed to look at that part of the enterprise. We—or, rather, the carbon audit providers—are working on how that takes wider account of other land-based activities, so that we can build activities such as sequestration or peatland restoration into the tools.

However, to go back to the question, what is important is that we recognise that farmers and crofters can use their land to deliver across all, or multiple parts, of the climate change inventory. As a Government, we are bound to report those emissions where they sit in the inventory, so the agricultural part of that will always be counted in the agricultural bit of the emissions returns that we have to submit. We are all bound by that.

Equally, however, we recognise that actions that farmers and crofters take, such as planting trees or generating energy, are important. We cannot deliver on the climate change plan without those efforts. What we need to do, therefore—and are trying to do—is recognise those actions, even though the inventory counts them in a way that means that it is a little bit awkward for us to get that across to farmers.

Rhoda Grant: I wonder whether there will be unintended consequences. For example, agriculture is being asked to do things such as reduce animal numbers, but that is going to cut down food production. Although the whole of the company may be net zero, therefore, we will be losing out on food production and possibly end up importing food that is more carbon heavy than what we are producing at home.

Mairi Gougeon: Again, we would want to avoid that, as we have largely tried to do. We have tried to take a balanced approach in what we have set out in the pathway; we did not take all of the UK Climate Change Committee's advice in relation to the policies. We have a broader challenge across the economy with regard to meeting the overall carbon budget levels. We are expecting to see the bulk of that fall happening later in the period.

You touched on the expectation that there would be a reduction in livestock, but our focus is on

reducing the intensity of emissions in our livestock sector, because we recognise not only how important the sector is to food production but how well suited it is to the landscapes in Scotland. The sector is a vital part of the agricultural industry and our wider economy, which is why we want to continue to support it.

Evelyn Tweed (Stirling) (SNP): Good morning, and thanks for your answers so far.

Some witnesses have had concerns that the agricultural reform programme just does not go far enough. How will the rural support plan offer the sector practical actions?

Mairi Gougeon: I hope that I was able to outline this to the committee during last week's meeting. We published the initial outline of the rural support plan, and the statutory obligations as to what the plan must contain are set out in the legislation. Ultimately, it is about delivering on our vision for agriculture and setting it out in a single coherent place, building on the agricultural reform route map that we published and bringing all that information together in the one place.

As I said earlier, I recognise some of the criticisms that have been made. We have implemented and are still implementing changes. It is important that we work with our farmers and crofters as we look to implement the framework in the future.

Evelyn Tweed: Do you think that there will be more practical actions as you move forward?

Mairi Gougeon: We have set out what any potential changes will be over the course of the next few years. Changes are being introduced through the ecological focus area, or EFA; there are the changes being made through the suckler beef support scheme; there are also the whole farm plan conditions, which I have talked about. We would expect everybody to have the audits in place by 2028.

Those are the measures that we have set out, and people will be aware that they are coming down the track. The rural support plan as a whole is about pulling together the information so that it is all in a single place. It builds on information that has already been published, to a large extent.

Emma Harper (South Scotland) (SNP): Good morning, and thanks for being here this morning. I have a couple of questions about issues around the draft climate change plan. The plan proposes technological improvements, including alternatively fuelled machinery, alternative fertilisers, feed additives and smart sheds.

Earlier in January, I led a debate about anaerobic digestion. That is not just about managing waste food; it is also about managing slurry—and there is also carbon capture to consider. There is a farm at Crocketford that is doing CO_2 capture, but it is also producing biogas. I am interested in all that kind of technological stuff. Dairy Nexus is doing work at the Barony campus at Parkgate. There is loads of stuff going on with technological innovation, and I am interested to hear about how much emissions reduction you expect to take place, according to your modelling, by implementing technologies such as smart sheds and all the other items that I have listed.

Mairi Gougeon: It is really exciting in that space at the moment, with all the innovation, research and work taking place. Some of the proposals that we set out in the policies and proposals are exactly that, for a reason. They are a bit less well defined, and we are still waiting on developments in some areas before we can put in anything more concrete.

Regarding some of the proposals that we have set out in the climate change plan, we have talked about some of the measures and the expected uptake from them. We have a policy in the plan on reducing emissions from non-road mobile machinery. From the modelling that we have, we would expect that about 50 per cent of all new non-road mobile machinery would be alternatively fuelled by 2040. Some of the modelling that has been done on the smart shed technology assumes that there could be about 100 smart sheds in place by 2040.

Many of those areas are continuing to develop. Things can change, of course, and they probably will change quite rapidly over the course of the 15-year period. We would continue to monitor that and provide updates as we progress.

Emma Harper: Is work on-going to help incentivise farmers to take up anaerobic digestion plants, for instance? The last time I checked the numbers, there were about 764 dairy herds in Scotland, and I know that a lot of them are in the south-west. Some of the herds might have up to 1,000 cows.

10:00

There is certainly room for supporting biogas as an alternative fuel for tractors and having that gas produced on site—and even using it for local heat networks, for instance, and using the digestate locally, so that the supply chain becomes more local. Are farmers being incentivised to take up that kind of activity?

Mairi Gougeon: There are probably a few points in what you have talked about. First, there is the investment that we make in looking at such technologies. As we touched on in some of our discussions last week on the budget, we are always interested in looking at and investing in

innovation. A variety of projects have been funded to do exactly that. That is the purpose of our knowledge transfer and innovation fund. That also funds the monitor farm network, which has been helpful in peer learning exchange, looking at what is happening elsewhere.

There is wider investment in some of the bigger technologies that you spoke about. Another exciting example of that, which relates to a previous point that I made in relation to non-road mobile machinery, is the HydroGlen project that we funded the James Hutton Institute to undertake. That has been on-going for a number of years, and it is about doing exactly that: producing hydrogen in a way that can support and sustain the rural economy and fuel machinery. That project is very much on-going, and, in any learning that we get from it and from some of the projects that you have talked about, it is about how we can scale it up and incentivise use.

Emma Harper: My final question is about early adopters and good collaborative working in the implementation of new technologies. I have just read an article about an innovative farmer who has partnered with another company to have biogas on his farm for his tractor. Is it essential to have good working relationships and collaboration with farmers and technology developers in order to make the technology work?

Mairi Gougeon: Absolutely. That partnership working—being able to share the knowledge—is essential. Some of the groups that we have had so far have been helpful in that. For the farming for a better climate initiative, we had one group on soils. Everybody was at a different stage in their journey in that process, and they learned from one another. Such programmes have been important in sharing knowledge and expertise.

Those kinds of networks can be helpful in sharing good practice. We are looking to build on and develop all those approaches through the agricultural knowledge and innovation system that we will be bringing forward. It is about building on all the advisory services through innovation and spreading that knowledge and expertise.

The Convener: Many witnesses have said that there is no clarity on the actions that are needed in agriculture and that farmers and crofters are not clear about what they need to do. Some have stated that farmers and crofters have been promised future rewards but that those are not materialising. We have heard about innovation—Emma Harper's question was all about that—but, for example, the cost of electric tractors is two or three times more than that of their normal counterparts, as is the case for tractors that are powered by biofuels or hydrogen. Given that the budget is declining year on year, how can we get early adopters, who are critical to driving innovation, to have the confidence that their investments will pay? Will there be future increases in funding to allow those early adopters to take on some of the new technology?

Mairi Gougeon: I cannot speak to what future budgets will contain. We discussed the budget last week. We have had the spending review, which is not a budget but will provide an overall line of sight. Some areas are proposals rather than policies, because we recognise that a lot of work is on-going. In some areas that we mentioned, things could change rapidly up to the end of the carbon budget period in 2040. We will consider what we can do, including incentivising the uptake of different measures, and will continue to work with the sector as we do that.

The Convener: Are you suggesting that some of the predictions on the adoption of new technology will not be financially driven or potentially financially supported by the Government?

Mairi Gougeon: I do not think that I have said that. We are trying to make sure that, in some of these areas, that could form part of the support in the future. We would want to ensure that we were seeking to incentivise uptake of various technologies.

With regard to what we have published and the overall direction that we have set out, it is important that we have provided clarity on the stability and maintenance of the direct payments. We have published the list of measures, and we provide more information on the measures in the code of practice on sustainable and regenerative agriculture.

The Convener: Clarity is one thing that many of the witnesses say simply does not exist. There is no clarity, and that sits alongside a decreasing budget.

Mairi Gougeon: That is why some of these areas are set out as proposals in the plan rather than as firm policies. They are set out differently because, given their nature, there are some unknowns around them.

We have the proposals on non-road mobile machinery, and we have other proposals that involve looking at technologies for alternative fertilisers, methane inhibitors, selective breeding and lower-methane genetics. There are a number of proposals in the plan, and we need to see how technology develops in some of those areas during that period. A lot of that work will continue to be on-going.

Alasdair Allan: The plan makes certain assumptions about livestock numbers. I know that you have had a conversation with the Climate

Change Committee and others about that. Can you say something about how that aspect relates to the landscape and about the allowances that you have had to make for the landscape of the less favoured areas of which Scotland is largely composed?

Mairi Gougeon: It was one of the policy proposals that the Climate Change Committee put forward, but, recognising how important the livestock industry is in Scotland, we were concerned about the impact that such a policy, should it be delivered, would have not only on agriculture but across the broader rural economy and our economy as a whole. That means that we have had to consider how we look more broadly across the piece if we are to meet those carbon budgets. That also involves other sectors, because it is not for agriculture alone to deliver on reaching our net zero ambitions. We need to look more broadly across other areas and think about how we can deliver the targets together.

I feel that we have put forward ambitious policies and proposals that will, as an alternative to reducing numbers, help to reduce the intensity of emissions in the livestock sector—as I mentioned earlier—while ensuring that we have a thriving agricultural industry. We have a landscape that is well suited to producing livestock, and we want to ensure that that continues long into the future.

Alasdair Allan: The committee has returned again and again to the issue of offsetting; we have probably spoken to you about it previously. What is the Government doing to ensure that, in the future, we do not continue to meet our appetite for meat in Scotland simply by replacing meat that is produced here with meat that is produced somewhere else, perhaps to poorer animal welfare or environmental standards?

Mairi Gougeon: Absolutely—we are very conscious of that, and we want to avoid it. That was also one of the reasons why we would not have accepted the proposal from the Climate Change Committee that we cut livestock numbers. We could have done that, but we would have been importing meat from elsewhere, which would not have actually changed anything—it would only have been harmful to our industry. That is why we took the position that we did: because we are committed in our support for the livestock sector in Scotland.

Alasdair Allan: Finally, I want to highlight an issue that, again, the committee has raised in the past. I do not know whether it was relevant to the considerations that you just mentioned. Is there a danger that, in many parts of the country, agricultural activity could slump to a point at which it would no longer be sustainable at a community level or as part of the local economy? What part did that play in the considerations? Did you consider any alternatives for less favoured areas with regard to things that would have to change in the future?

Mairi Gougeon: When it comes to reducing emissions in a way that works for rural Scotland and our agriculture sector more broadly, the alternatives are broadly as we have set them out in the policy package.

We have to remember that we are not developing these policies in isolation. In your previous question, you touched on an important point about trade. A lot of that is outwith our control. We have been signed up to trade agreements through which we expect to see a greater influx of meat products into the country, which we cannot then control.

The wider impact across rural Scotland is a key consideration. It is about not just the farmers on the ground but the wider supply chain, including our marts, auctions and abattoirs. All of that is of critical importance to not just rural Scotland but our economy as a whole.

All those considerations factor into the policy positions that we have taken. They are why we have set out what we believe to be ambitious but achievable on the path to 2040, in a way that will not be as damaging as the cuts and the initial policy proposals would have been, had they been accepted.

Tim Eagle (Highlands and Islands) (Con): Good morning, cabinet secretary. I have a couple of quick questions. To some extent, you have said a lot of positive words this morning. You have said repeatedly, “I recognise the criticism,” or a variation of that in response to several questions on matters about which a lot of stakeholders have been critical. I will go back to March, when we had Quality Meat Scotland and NFU Scotland in front of us, or to even a couple of weeks ago, when we had stakeholders in to talk about the CCP. Is the problem the fact that it is all a lot of words and delivery on the ground has been poor, including the fact that we have still not seen the rural support plan?

Mairi Gougeon: Again, I disagree. As much as I recognise the concerns that have been expressed by others, it comes back to the fact that we have had to make sure that we have in place those fundamental building blocks on which to make the changes that we have set out and to deliver the new framework that we want to achieve.

I appreciate the frustration that exists, and I appreciate that others want us to go further and faster. However, we committed to the process of developing our policies with farmers and crofters,

which, naturally, has taken more time. We want to make sure that, ultimately, when the new framework is delivered, it works and delivers all the outcomes that we want for climate, nature and food production while having thriving rural communities at its heart.

Tim Eagle: I get that, but, to go back to Jim Walker's report of years ago on calves in a sustainable beef industry, or even to what has happened with the agri-environment climate scheme over the years and the amount of money that we have put into that, my understanding, from the latest data that I can get, is that the drop-off has been massive—partly because you took away a lot of the capital grants, so people have just not done those things. On EFAs—I am just using practical examples—we were expecting a whole raft of measures, but the scheme has been cut back to just four new options.

Fundamentally, delivery has been quite poor, has it not? You say that it takes a long time. However, we are 10 years or so on from the start of discussions and we still do not have the rural support plan or know what is coming around the corner, so I wonder whether farmers are dropping off.

My other point is that, to some extent, I hear from the community that the working arm of the department is so busy concentrating on paperwork that it is not concentrating on the difference on the ground. Is there some truth in that?

Mairi Gougeon: You have mentioned a lot of areas, which I will touch on as best I can.

When it comes to farmers dropping off, a key thing that we want to focus on is that that has happened in other parts of the UK and we want to avoid it at all costs. We do not want to rapidly change systems so that direct payments drop off, because people will then fall out of support schemes. We want to avoid that as much as possible, because we want to retain businesses within our support structures and to work with the industry to facilitate some of the changes.

You touched on some of the measures that we published years ago and said that the ambition has dropped. It has not. The ambition is still to deliver more of those measures in tier 2 of the framework, to ultimately provide farming and crofting businesses with the flexibility and the choice to use measures that will work for them on the ground. Obviously, we recognise that, across Scotland, everyone's farm is different, so it is right that we provide that flexibility and choice.

We have had to go through various processes to get to this point, and it has involved introducing new legislation so that we have the powers to do it. We are also constructing the new systems to deliver all the flexibilities that we need for the future.

10:15

In the budget discussions last week, we touched on the agricultural reform programme and said that the investment for that in this year is targeted at gathering data. That will make a huge difference for us in reducing for people some of the workload relating to inspections. It will mean that we can better recognise the on-farm features and better reward and recognise the work that is being undertaken by farmers and crofters, as well as being able to monitor some of the changes that are happening on the ground. John Kerr talked about the monitoring and evaluation framework through the agricultural reform programme. We are investing in those capabilities so that we can deliver a system that will ultimately deliver the four-tier framework as we envisaged and set out.

However, there are steps to get there, which is why we have not stood still. We have introduced other changes and conditions of support, as well as trying to provide more data directly, through the likes of MyHerdStats, to livestock keepers, for example, so that farmers and crofters are equipped to take the decisions that will have the best impact on farms. It is not fair to say that we have sat still and that things have not moved. We still have that overarching ambition, and we are building the capabilities to enable us to get there, but we needed some of the foundational building blocks at the start, too.

Tim Eagle: I think that we are just going to have to disagree. The point does not come from me. Pretty much every stakeholder who has sat in front of us has said that the Government has been really slow to enact the change. I accept that you say that it is potentially coming, but I am just not sure when it is going to come. My worry is that the agriculture industry is being harmed by that, because, rather than the industry being seen to be driving forward, which I think it is doing on the ground, it is being held back by Government.

I have a quick question, because I want to get something clear in my head. John Kerr answered a question earlier and talked about emissions breakdowns. In the carbon audits, agriculture is not being seen in its broad scope. Can I double-check that the industry is not penalised for that? If you took in that broad figure, the situation might look far better than it does, because of the way the figures are broken down in the paperwork. Am I understanding that correctly?

John Kerr: Our intention is definitely to recognise the effort that farmers and crofters are making, whether that is in the agricultural part of the industry; in land use, land use change and

forestry; or, as somebody mentioned, in renewable energy. As the cabinet secretary has pointed out, our overall policy is to support active farming businesses, but we want to help them to do those other things, too.

Sometimes, farmers feel penalised in that their agricultural emissions are judged—not by us, but by the media—in the absence of looking at the good things that they are doing. We are trying very hard to counter that narrative, including by demonstrating the things that farmers and crofters are doing with their land. Some of that criticism is felt by the sector, but I do not think that it is coming from the policies that we are in control of or even in the way that it is portrayed by others. I recognise the criticism, but I do not recognise it as coming from our policies. Certainly, we have sought to have a very balanced policy in terms of how agriculture fits into the overall climate change plan.

Tim Eagle: I get that. I just wanted to be sure about that. Maybe I completely misunderstood. Somebody—it might have been Emma Harper—mentioned a dairy example, but a dairy farmer might say, "There's not much I can do, as I have a lot of cows and I am milking, but I have filled all my sheds with solar panels and I have worked hard on planting trees." If that is not being considered in the way that statistics are delivered, it might look as if agriculture is not doing much.

Does that make sense? I think that what John Kerr is saying is that you are trying to pull all of that together to show that agriculture is doing quite a lot, even if it is not based purely on livestock numbers.

Mairi Gougeon: Yes, absolutely, but it is really difficult. Again, that is through no fault of our own, as it is not in our power to fix how that is categorised in the inventory overall.

Tim Eagle: Yes. Okay.

The Convener: I am a bit concerned by Mr Kerr's comments that the Government feels that it has any place to defend agriculture. The Government's job is to ensure that we have sustainable food production and food security and to deliver on its commitments in the climate change plan. I know that the cabinet secretary disagrees but, across the sector, whether that is non-governmental organisations, small or big farmers, the NFU Scotland or the Scottish Agricultural Organisation Society, there is universal condemnation of the lack of clarity on future agricultural policy.

On the back of the Agriculture and Rural Communities (Scotland) Act 2024, Jonnie Hall said that it was "two years too late", it was "pretty bland" and that it

"lacks the obvious detail which farmers and crofters need now if they are to plan for and implement change."

There are real concerns about agriculture, but the cabinet secretary seems to be the only one who disagrees with that.

Mairi Gougeon: There are a few points in that. To be fair to John Kerr, what he was saying and what we have been saying is that agriculture is very much part of the solution to the climate and nature issues that we face. That touches on the perceptions that Tim Eagle has just spoken about. It is about our policies giving better recognition to the role that agriculture plays in delivering on the ambitions.

You have set out a criticism of the 2024 act, which would never have contained the detail. We had multiple discussions during the scrutiny process, because the act introduced the powers to deliver a future framework of support, during which time we developed the detail with the industry. Much of the information that has been published about the overall direction in which we are going is available in the list of measures and the route map that we have spoken about, along with the initial version of the code of practice, which we have published. We are set to publish the final version of it once the rural support plan has been published.

Among all of that, we have provided stability through direct payments and have outlined our commitment to support our livestock sector through voluntary coupled support and other measures, because we recognise how important it is to provide certainty. I can only reiterate what I have already said: I appreciate criticisms about the scale and pace of change, because we want to work with the sector and ensure that we are implementing policies that work and will deliver our ambitions for the future. Of course, we can then look to scale those up in the years ahead, as we have set out in the draft climate change plan.

Emma Harper: I have a quick supplementary on the back of Alasdair Allan's questions about trade and the things that we can control. Dr Stuart Gillespie has written a book called "Food Fight" in which he talks a lot about emissions, ultra-high-processed foods and ultra-processed foods. It may not be in your portfolio, but I am interested in evidence and any research on or evaluation of UPFs in our diet and their contribution to obesity in comparison to healthier foods. Healthier food is mentioned in the draft climate change plan, but does 'healthier' mean food that has been flown for thousands of miles or palm oil that is destroying biodiversity in Indonesia, for example? Is that being considered in the climate change plan?

Mairi Gougeon: I suppose that it kind of is and it kind of is not, which is probably an unhelpful response. I do not have any facts or figures in relation to the exact impact of ultra-processed

foods that I can refer to today, but the issue came up in discussion of the good food nation plan and the ambitions that we want to deliver through that. There has been a lot of on-going work in relation to how we classify ultra-processed food. A few months ago, the Health, Social Care and Sport Committee had some discussion about what indicators or measures for healthier food could look like in the future, in the draft climate change plan, but I do not think that we are at the point of being able to include anything on that.

Ultimately, the good food nation ambitions set out that we want more people to enjoy a healthy lifestyle and healthy produce that is preferably sourced as locally and as near to home as possible. A whole body of work was done on that, and the policies and proposals that we are bringing forward through the draft climate change plan are key to all of that.

Sorry—that is quite a long-winded answer, but there are lots of interconnected strands of work.

The Convener: We will now move on to forestry and a question from Emma Roddick.

Emma Roddick (Highlands and Islands) (SNP): Good morning, cabinet secretary. I want to ask about the tree planting targets and the interaction with the Climate Change Committee's recommendations. I note that the CCC specifically mentioned the figure of 22,000 hectares a year by 2036, but it seems from the draft climate change plan that the Government is taking a different approach. Can you speak to that and how that approach will meet the overall targets for planting?

Mairi Gougeon: Absolutely. I touched on that issue earlier, and I will probably bring in Brendan Callaghan to respond, too.

We have, ultimately, set out a different pathway to that which the Climate Change Committee advised because the policies and the pathway that it set out were based on different modelling. We had access to different modelling through Forest Research, which is why we have set out this particular trajectory. Brendan can give you a bit more information on that.

Brendan Callaghan: There are two or three things to highlight here. First, we are very conscious of the need to maximise the contribution of planting in this climate change period in order to address emissions reduction. The more planting you do earlier in the period, the more you can deliver, because of the delay while the trees grow.

The modelling that we had access to allowed us to look at those figures in a more dynamic way. Although the figures in the Scottish Government's draft plan are lower from 2036 to 2040, they are higher in the earlier years. For example, we get up to 18,000 hectares within five years, whereas that period was longer for the Climate Change Committee.

Secondly, there are concerns about the fact that we do not have any evidence or track record of delivery at that scale of planting. The fact is that 18,000 hectares is an ambitious and challenging target, and we will have to prepare a delivery plan that looks at all the options to get us there. Moreover, we inherently had concerns about whether the 22,000 hectares figure was technically achievable. When we had discussions with stakeholders, they voiced similar concerns.

There are a number of reasons for the difference, but the main one is the aim of maximising the contribution to emissions reduction within the climate change plan period, and we will achieve that by planting trees earlier.

Emma Roddick: If I understand this correctly, you are saying that, although fewer trees will be planted in 2036, more trees will exist at that point than would have existed under the Climate Change Committee's proposals, so carbon sequestration will be greater at that point.

Brendan Callaghan: Yes.

Emma Roddick: Grand. Thank you.

The Convener: Just on that, I note that you mentioned the lag effect. Turning that on its head, I assume that that means that, if we do not plant more trees now, we risk making future carbon budgets more difficult, because of the lag period. When we look at the draft climate change plan, the CCC's recommendations and the budget together, do we not see a policy delivery mismatch in that these ambitions are not backed by the resources that the industry feels it needs in order to address the lag and that give the industry the confidence to invest?

Mairi Gougeon: I think that we touched on this point last week. I do not know whether you are referring to some of the figures that have been provided by the industry with regard to what it thought it needed, but I can bring in Brendan Callaghan to delve into that in more detail. We have the resources to deliver what is set out in the draft climate change plan in the coming year's budget and in the spending review for the years following that.

Can you elaborate on that, Brendan? I think that the industry had asked for a higher budget, but we do have the budget that we need to deliver the policies that have been set out—if that was the point you were trying to make, convener.

Brendan Callaghan: There has definitely been a historical problem in the past few years, with the lack of funding affecting confidence. Indeed, the

cabinet secretary recognises the issue and has talked about it numerous times.

As far as the current draft climate change plan is concerned, we have done some very detailed analysis of the level and profile of the funding needed to support the number of hectares that are set out in the plan, and we are confident that that is sufficient. It does not surprise us that the industry can come up with a higher figure. We have quite a lot of discussions with those in the industry, and we sit down and compare notes on these things. At the end of the day, given that it is a very challenging settlement, we cannot afford to pad out our budget. I am not saying that we could not do more with more money, but we are absolutely satisfied that the budgets have been pitched at an appropriate level to deliver the target that has been set.

10:30

Ariane Burgess: I am interested in targeting carbon value in spatial planning. The climate change plan relies heavily on area-based woodland targets, but witnesses have stressed to the committee that a hectare is not necessarily a hectare—it depends on what is being done on it. We had quite a long chat about that. Concerns were raised about putting trees in the wrong places and about planting in organic soils. It was also said that we could do quite a lot through forestry management in a way that we are not doing or requiring at the moment.

How will you ensure that we not only hit hectare targets, in terms of numbers, but get the best carbon outcomes? How will you prevent trees from being planted in the wrong places, such as carbon-rich soils, where they could do more harm than good? Another point that was raised in our conversation with witnesses was about having a plan for where trees should be planted.

Mairi Gougeon: Brendan Callaghan will be able to provide more focused detail in relation to identifying the right places and how those processes work at the moment. The type of tree is also important. Analysis that has been done by Forest Research shows that planting faster-growing conifers will deliver the greatest level of removals between now and the middle of the century. Overall, native and broadleaf woodlands are also vital in building up wider woodland carbon stocks over the longer term and in supporting the wider resilience of any new woodland that is created.

I saw the evidence that you touched on about where trees should be planted. We have always been keen to have the right trees in the right places. That has been fundamental to our approach. I will hand over to Brendan Callaghan, who can say a bit more about the detail that is considered in that regard.

Brendan Callaghan: The hectare target includes the full range of woodland creation types, species and land types. The assumptions about the carbon savings are based on the current mix, which is split roughly half and half between native woodland and productive conifer woodland.

Ariane Burgess is right in saying that, in theory, if you wanted to maximise the number, you would use purely mineral soils and the most productive species, but that would severely limit us in Scotland, because it would inevitably mean that woodland creation would be focused on better farmland and it would lead to conflicts relating to interference with food production.

As the cabinet secretary mentioned, it is important to note that it takes longer for native woodlands to start growing and absorbing carbon. A lot of the native woodlands that we are establishing are on organomineral soils—for example, shallower peats in the uplands. However, in the medium term—over 20 to 50 years—native woodlands continue to absorb carbon gradually, so they will provide a substantial long-term benefit in relation to the emissions reduction profile of Scotland's woodlands.

On the spatial element, the woodland expansion advisory group carried out analysis on the potential scope for woodland creation, and that analysis has been repeated by ClimateXChange and others. We are confident that, excluding prime agricultural land, designated sites and land that is not suitable for tree planting, roughly 1.5 million to 2 million hectares of Scotland's land is potentially suitable for tree planting. However, when we start to look in more detail at that land, we find lots of other constraints.

An element of that has been done through local authority forest and woodland strategies. Most local authorities have strategies in place, and several, including the two authorities in the south—Dumfries and Galloway Council and Scottish Borders Council—are starting the process of renewing them. Those are non-statutory planning documents, which allow for the identification of suitability in a broad classification.

Some areas are considering whether they can go further than the regional land use partnerships and go into more detail. That is where things get challenging, because environmental surveys will be needed on the actual sites. If somebody takes a decision about one part of a valley, will that affect the suitability of the other part? There is a cumulative effect.

The question of whether regional land use partnerships could be used to spatially identify

where forestry should be created and where it will deliver the most benefits is being explored. However, in practice, barriers will be hit. There is an argument that sites will always need to be dealt with on a case-by-case basis through an assessment of environmental impacts and by looking at what is on the site and what has recently happened in the locality. We are exploring the use of regional land use partnerships, but that may not necessarily be the solution.

The final challenge in considering this issue is that we need to work in partnership with landowners, and they need to be willing to do that. Landowners sometimes do not appreciate a top-down approach that says that their land is or is not suitable for tree planting. Things can get difficult if we have those discussions at a detailed level rather than at a regional level.

At the moment, we rely on a case-by-case approach, but we are open to regional planning approaches to strategically identify where woodland creation would fit into the plans.

Ariane Burgess: Okay. Thanks for providing that broader picture. At the beginning of your answer, you said that, in an ideal scenario—I am paraphrasing—we could plant on mineral soils in the most productive areas but that doing so would limit us and push us on to farmland. I am more interested in the point about limiting us. In what way would we be limited? Is it just that we would end up on farmland?

Brendan Callaghan: A high proportion of the 1.5 to 2 million hectares of land in Scotland that is theoretically suitable for tree planting has an element of organic soils on it. Those are not deep peats, because peats that go deeper than 50cm have been excluded from that figure, but they may go 10cm, 20cm or 30cm deep. A lot of Scotland is part of that territory.

If we removed such areas, we would almost be left with semi-improved or improved agricultural land. There is almost nowhere in the upland landscape, other than in the very east of Scotland, where there are purely mineral soils—they would all have an element of organic soils. We deal with that on a case-by-case basis with peat and soil surveys and assessments of the suitability and value of the present habitats and by protecting those.

Ariane Burgess: Okay. The Scottish Agroecology Partnership—SAP—has pointed out that there are not really any opportunities in the forestry farming space for things like hedgerow planting. Are you looking into that?

Also, I remember being at the Royal Highland Show, where the Woodland Trust and others were presenting the idea of having trees on farms. Are we optimising that idea or that direction of travel? There is such an opportunity for farmland—I have been to a monitor farm near Grantown-on-Spey, where the farmer had his cattle grazing through a wonderful, quite old birch wood. Maybe we need to look into that kind of thing.

Mairi Gougeon: There are many different facets to that question. I am sure that the committee will be aware of the work that we have started doing on light detection and ranging, which will help to capture a lot of that information. There is some support for hedgerows through AECS. I am also aware of other projects in relation to planting hedgerows that have previously been done on a broader scale through the nature restoration fund. There is also funding through the forestry grants scheme, which was increased specifically to ensure that we make it as easy as possible for farmers and crofters to consider planting trees.

The attempts to remove some of the barriers for tenant farmers, which we have been considering under the Land Reform (Scotland) Act 2025, are also relevant. We want to incentivise tree planting where possible. The integrating trees network has been brilliant in relation to that, and we want initiatives of that sort to be scaled up, so that we can do more.

Ariane Burgess: I mentioned this in my question, but I will bring it back into the conversation. Some stakeholders highlighted the idea that we could do more management within forestry plantations, for instance. Are you considering that? If forests were properly manged or better managed, that could help us with our carbon emissions.

Brendan Callaghan: Yes, absolutely: I have a lot of sympathy with that view. We are at the evidence-gathering stage on that. The current modelling in the climate change plan is based on a whole series of complex assumptions. We have spoken with Forest Research, and we have commissioned a study to examine practice across Europe—what other countries are doing to use the management of their forests to maximise their contribution to climate change. We need to understand the impacts if you change something in your approach to forest management; there might be a short-term benefit, but is there a benefit in the long run?

As I say, we are at the evidence-gathering stage. We were not ready to introduce policies in the present climate change plan, but we are aware that other countries are actively considering the idea. We are trying to gather information and evidence as to how the levers could be used and whether we are able to improve the situation.

Ariane Burgess: Does that include continuous-cover forestry? Are you considering that as a possible approach?

Brendan Callaghan: That is already a component. Every landowner managing a forest is expected to consider that and to have some element of it. That is definitely a question in our minds: if you increase the area under continuous cover, does that help and how significant is that? There are constraints on that in Scotland, but that is one of the questions where we want to get the evidence and understand the answer before we introduce the policy.

Ariane Burgess: You mention—

The Convener: I am sorry, Ariane, but—

Ariane Burgess: Can I raise one very quick point?

The Convener: No—I am going to have to move on, as we are running out of time. I call Rhoda Grant.

Rhoda Grant: Thank you, convener. This is just a wee point of clarification. If I have picked you up right, cabinet secretary, you were saying that it takes longer for native woodland to store carbon than it does for commercial planting. How does that impact on our use of native woodland in the future? We have always said that, if we found better uses for native woodland, we would plant more of it in Scotland.

Mairi Gougeon: You are right about that. I made that point earlier about the potential for wider carbon stores. Our native and broadleaf woodlands will build up woodland carbon stocks in the longer term, supporting broader resilience. I do not know whether you are referring to a use after that.

At the moment, what we are planting is broadly split 50-50 between the faster-growing species and our native planting, which I think is above the targets and the split that we had initially tried to set out.

Are you referring more to the use of those products afterwards? I just want to clarify that other element of your question.

Rhoda Grant: Yes. I guess I am a little concerned that, if native woodland does not store carbon so quickly, there will possibly be a push not to use it and to leave it in the ground, so that it slowly stores carbon, rather than taking it and using it for other purposes.

Mairi Gougeon: Having that mix in our forestry is critically important, not least for the resilience of the woodland that we are creating. I do not know whether there is anything further that you would want to add in relation to that, Brendan.

Brendan Callaghan: Generally, the management of woodlands maximises their absorption of carbon in the long term. In woodland where the trees of all the canopies have interlocked and are starting to compete, some of those trees would naturally die, and that carbon would be re-released. However, if you go in and harvest that proportion, you keep the trees growing, and the timber that you have harvested can go into a variety of uses, some of which are long term and contribute to carbon stored in timber products. Generally, forestry management is a positive thing for maximising carbon storage, so I would not worry about that.

10:45

You are probably thinking about it in the same way. Where woodlands have a purpose beyond simply being woodland, that tends to strengthen their security and enhance their management for conservation. People then tend to be involved in deer management and to value the products that come from the woodlands. We very much encourage that.

Although that is not possible in the case of all woodlands—often because of the terrain or access—we are very much planting native woodlands with the expectation that a high proportion of them will be managed in the long term.

The Convener: We will now move on to our section on peatland. My question is on the targets and what we have achieved up to now. We have a baseline that assumes that 12,000 hectares will be restored in 2025-26, which is set out in the five-year peatland action programme, which was published last December. To that, we can add the 90,000 hectares that have been restored to date. However, it does not appear that the increasing rate of restoration by 10 per cent each year up to 2030, and maintaining levels after that, will reach the target of 400,000 hectares by 2040. Will you explain that discrepancy?

Mairi Gougeon: Yes, absolutely. Overall, what we have set out in relation to aiming for 400,000 hectares by 2040 is about communicating the overall approach and trajectory that we would expect to see. We are setting ambitious targets. On the basis of that calculation, we would restore more than 370,000 hectares by 2040, but the ultimate aim is not for delivery to flatline.

As we have seen in recent years, for various reasons—not least the cost and complexity of projects—there may be a slight reduction in the number of hectares that you are able to restore in one year, followed by an uplift in the next, depending on the project delivery pipeline, as well as some of the broader complexities that we have

discussed. However, the approach is also about targeting some of the higher-emitting sites and ensuring that we are tackling the worst of those.

The Convener: I appreciate that some restorations are of higher quality and result in greater amounts of carbon sequestration. That would suggest an improvement in the accuracy of emissions reporting. However, it is quite clear that the targets are based on hectares. We must not conflate the targets, which are in hectares, with the emission reductions. Given that the target to restore 250,000 hectares by 2030 is not likely to be met, how will you ensure the target to restore 400,000 hectares by 2040 target is met?

Mairi Gougeon: There are challenges in meeting the 2030 hectare target—there is no getting away from it. However, I think that we are on track to deliver the interim target for this coming year, which is 110,000 hectares. It is important to recognise just how far we have come with peatland restoration and the work that has taken place in that regard.

I have talked about the focus on some of the higher-emitting sites, but there are other pieces of work to better capture some of the peatland restoration that takes place. That is a focus of the peatland action programme and what we are directly funding, but we know that private landowners are also restoring peatland, and some options are available through AECS to do that. Part of the work being undertaken focuses on how we can better capture the broader picture in relation to that.

The 400,000 hectare target is ambitious, and we believe that we can reach it.

The Convener: I suppose that it is all about being pragmatic, transparent and honest with people about what the targets mean. Justifying a reduction in the number of hectares restored by suggesting that you restored fewer hectares but achieved greater carbon capture is not particularly transparent.

Should we not be looking at one or tother? We should either be looking at emissions reductions through improved peatland restoration, or looking at the target for restoration by hectarage. Why do we have the different approaches, going by the area restored and by emissions reductions? Why are we conflating the two rather than being a little more transparent?

Mairi Gougeon: It is ultimately about doing both. I am saying that we are targeting the higher-emitting sites, but it is also about reaching the target of restoring 400,000 hectares. It is not either/or, in my view—it is fundamentally about delivering them both. Tim Ellis may want to say some more on that.

Tim Ellis (Scottish Government): It is worth remembering that we are doing this in the context of the climate change plan, and therefore we are focusing most on emissions reductions. However, for peatland as a whole, that has a number of other benefits in terms of hydrology, water quality, nature restoration and so on. The measurement by hectares is a way of ensuring that we capture all that in the round, rather than just focusing on either one or the other, as both are important.

The Convener: We certainly heard in evidence about the other benefits of peatland restoration.

I have a question from Alasdair Allan.

Alasdair Allan: As everyone knows, some areas of peatland have much higher emissions than others. How are you seeking to identify—or are you seeking to identify—the most degraded or most high-emitting areas of peatland under your policy?

Mairi Gougeon: Key to delivering that is the "Peatland ACTION Five Year Partnership Plan 2025-2030", which the convener touched on in one of his previous questions. That plan sets out and describes the actions that we need to take to increase restoration during the first phase of the journey to the new 2040 target.

The plan sets out how we will work with the sector to develop those approaches to focusing public funds on delivering on climate and nature objectives and broader objectives, and ensuring that we increase the proportion of highly degraded, high-emitting peatlands that are restored. The partnership is currently working through ways to better target those peatland types. We have mapped out the extent of peatland in Scotland, and we are identifying where those more challenging and highest-emitting sites are.

Alasdair Allan: You indicated that there will have to be an effort by all concerned, not merely by Government. In that case, what is being done to mainstream the activity of peatland restoration in the day-to-day ownership and management of land in Scotland?

Mairi Gougeon: That is critical. The peatland action programme has been fundamental in driving forward a lot of that work and building relationships. However, it is about not simply the restoration of peatland itself, but—as I touched on in a previous response—how we are protecting our peatlands and wetlands in agriculture. We have done that through the introduction of some conditions.

We are talking about different envelopes today, and it is easy to categorise things in different areas and put them in those envelopes, but we need to look at land in an integrated and coherent way. Fundamentally, that is in our minds as we are

shaping future policy that involves peatland and forestry to ensure that we provide a range of options.

To come back to my previous response to Ariane Burgess, we need to ensure that everybody can play their part, through the Land Reform (Scotland) Act 2025, in doing work in this area.

As I outlined, there is currently a piece of work going on to better capture and understand where peatland restoration that has not been funded through the peatland action programme is being undertaken.

Some exciting projects are currently taking place; the committee may have heard about those in its evidence. In particular, there is the Flow Country Partnership, which is looking at working with crofters on peatland restoration. We need to take the learnings from such projects and look at how we develop and build on that work, because everybody needs to be equipped and enabled to play their part.

Alasdair Allan: Finally, do we have the workforce in rural Scotland, or are we seeking to develop the skills and a workforce, to deal with some of the heavy lifting that is involved—in some cases, literally—in parts of this work?

Mairi Gougeon: That has been one of the challenges in peatland restoration. Fundamentally, we have had to build a new industry and ensure that we are investing in and building capacity for the sector in order to meet not just the targets that we have now but our ambitious targets to 2040, which we have already talked about.

Tim, do you have anything more to add in relation to the skills element, in particular, and some of the work that has been happening there?

Tim Ellis: The committee heard from the panel of witnesses a couple of weeks ago that, up until relatively recently, there were a number of challenges. In the short term, we seem to have got beyond that, but there are clearly longer-term workforce issues, and I think that NatureScot has talked about going into schools and so on.

In the short to medium term, we have a programme that will provide sufficient capacity in the sector to enable us to carry out this activity, but there is also work that we will do as part of our five-year plan to ensure that we have the right skills and are sending the right signals to the sector to ensure that the activity is not only maintained but sustained into the longer term.

Alasdair Allan: Thank you.

Tim Eagle: I think that the budget this year sets out a figure of £28 million for this work, and it also mentions 10,000 hectares. The draft climate change plan is looking to do around 13,200 hectares this year. Are you confident that that is achievable within the £28 million budget?

Mairi Gougeon: Again, all sorts of complexities might well arise with projects in the coming year. You are absolutely right—£28 million has been earmarked in this year's budget, and it is for delivering 10,000 hectares. That is purely because the cost of restoration has gone up quite dramatically—from what I can remember, it has increased by 150 per cent—and that can inhibit activity.

It might mean that slightly less gets restored, but the expectation has been that there will be peaks and troughs between years. If you look at previous years, you will see that we were able to restore 15,000 hectares of degraded peatland, so we would expect to be able to make up this shortfall in the coming years.

Tim Eagle: This is just out of curiosity, but are there any other sources of funding that you think can help with achieving the targets?

Mairi Gougeon: We have been looking at and considering that. At the moment, peatland restoration is 100 per cent funded through the Scottish Government, and we need to look at other models of finance such as private finance, because I do not think that we can rely solely on public funding to do everything that we need to do, whether it be in relation to peatland or other areas. In our modelling, we have been looking at Government funding covering about 90 per cent of the costs, and the other 10 per cent coming from private finance.

There is also our peatland code to take into account, because we want to ensure that, if we do get private finance, that sort of investment is done with integrity, in a responsible way and in accordance with the natural capital market framework that we published towards the tail end of 2024.

Tim Eagle: Okay. Thank you.

The Convener: We still have two or three questions to go, and I am conscious that we are rapidly running out of time.

Ariane Burgess: As Tim Eagle touched on the first part of my question, I will move on to the other part of it. He asked about other sources of funding, and you have pointed out that you are looking at private finance. However, Future Economy Scotland warned us in evidence that the private finance market for peatland is "underdeveloped and untested" and that we might be

"delaying action … for an uncertain solution"—[*Official Report, Rural Affairs and Islands Committee*, 7 January 2026; c 4.]

later on. It also raised the practical point that

peatland restoration is largely about avoiding emissions, so the demand for peatland credits might be weaker, and it pointed to, for example, tax-based approaches, zero-interest, income-contingent loans and that kind of thing. Is the Government looking at that, instead of just going for straight-up carbon credits and that kind of approach?

Mairi Gougeon: I think that we have to look at, and be open to considering, other alternatives. We have pilots in certain areas at the moment and we are seeing how they are going. One element of those pilots is carbon contracts, but that sort of thing is still in the very early stages. Indeed, we refer to that in the draft climate change plan when we talk having a blended finance model to try to increase private investment in the future.

Ultimately, we are trying to incentivise more peatland restoration earlier in the programme so that we can get better climate resilience. That is a lower-risk option, too, and it would not require as much of a set-up. Again, though, that work is in its very early stages.

I do not know whether you want to add any more to that, Tim, but I think that that probably covers it.

Tim Ellis: Yes, that covers it.

Ariane Burgess: Is the carbon emissions land tax in that space?

Mairi Gougeon: In the programme for government, we committed to ask the Scottish Land Commission to do some work on that, which it is currently undertaking.

Ariane Burgess: Thank you.

11:00

Rhoda Grant: As a supplementary to that, Future Economy Scotland has suggested that private finance could increase project costs by almost 50 per cent. Does that provide good value for money?

Mairi Gougeon: That is why piloting some of the projects that we have talked about is important: we need to see what will work and minimise the costs that are involved. When we undertake projects, such as the carbon contracts project, it is important to consider whether we can scale them up. We can then look at using a blended finance model in the future, but we very much have to see how the pilot progresses and what learning we can take from it.

Rhoda Grant: Okay. Thank you. We have heard that farmers and crofters have a real role to play in peatland restoration, tree planting and the like. How do we ensure that support and funding for that work is coherent, so that people are encouraged to do it rather than discouraged?

Mairi Gougeon: I will touch on some of the points that I made earlier. Our approach is not only to encourage restoration; it is about how we protect some of our peatlands. We considered that when applying some of the conditions to agricultural support.

We need to involve everyone in the agricultural reform programme to ensure that we are linked. I give the assurance that, as we develop future support, we are not working in silos, and we are considering how we can provide support in an integrated and coherent way. Officials are involved in the agricultural reform programme and very much having such discussions at the moment.

Rhoda Grant: An awful lot of agricultural funding goes toward activities that might be reduced if land is devoted to peatland restoration and tree planting. Rather than using a tick-box exercise to encourage them, is there a way to mitigate any losses that might be caused?

Mairi Gougeon: That is not always the case. In the draft climate change plan, we have highlighted some examples in which different land uses have been integrated. We have talked about the integrating trees network and some of the great examples that have come from that. In the plan, we have highlighted Tardoes farm, owned by the Coopers, where a large peatland restoration programme has taken place. They have been able to do that work while retaining a successful commercial sheep flock. The programme has shown how land uses can be integrated and how peatland restoration can be done. People can still have grazing animals and make a real success of such work. It is about how we can best ensure that we have integrated approaches rather than an either/or situation.

Rhoda Grant: We have heard evidence about the role of crofters in peatland restoration and common grazings. It was suggested that there is a blockage in that, if there were carbon credits, there would be dubiety as to who could sell them. I would suggest that the peat is the crofters' resource, but do you have any plans to do anything to unblock the issue?

Mairi Gougeon: That is why a project that I have touched on in previous responses will be critical, because the Flow Country Partnership looks at those exact issues. Tim Ellis might be able to say a bit more about that.

Tim Ellis: That is absolutely right. I will not say too much more about it. Professor Roxane Andersen, who was here a couple of weeks ago, gave you a bit of an insight into that. Some work is on-going, and we believe that it is the first project that will have to go through the Scottish Land Court process, but once that is done, we hope to have

some clarity and a further basis to look at future options.

Rhoda Grant: Thank you.

Tim Eagle: I want to ask a practical question about how we encourage smaller landowners to take up peatland restoration and tree planting. I am very conscious that one of the criticisms that was made in 2022, after storm Arwen, when quite a lot of small trees that had been planted on the sides of fields had fallen down, was that it was really cumbersome to talk to Scottish Forestry about the licences that were required to remove them and replant. Are you looking at making the system easier in order to encourage smaller landowners to plant trees without the fear that, once they have planted them or have done some restoration, they will be stuck in confusion over rules and regulations that will perhaps prohibit them from taking it up again in the future? I do not know whether that makes sense, but I am conscious that that was very much a feeling that I observed post-2022.

Mairi Gougeon: Where we can make the system easier, we absolutely will, and we constantly look at that through the forestry grant scheme. Encouraging more small-scale planting and integrating it on farms is also why we increased the grant rates for such work, in recognition that we wanted to incentivise that as well. Brendan Callaghan might want to add more on that particular point.

Brendan Callaghan: I definitely sympathise with that. When it comes to which incentives are offered, the main changes that we make will be through the development of the future forestry grant scheme and its incentives. No matter the scale, there is an element of planning and preparatory work that comes with that work, which can end up being a disproportionate barrier for small projects. We recognise that point, which came through in the consultation ahead of the work on the future forestry grant scheme. We need to constantly challenge ourselves on the regulatory and bureaucratic burden that is associated with tree felling and replanting.

In respect of storm Arwen, we took measures to allow people to get going more quickly. What actually happened was that the market and industry capacity turned out to be the limiting factor, not the capacity of the regulatory public body. We definitely need to keep challenging ourselves on that.

Tim Eagle: It sounds like quite a small thing, does it not? However, a lot of stakeholders are talking about the extent to which crofters can play a greater role—there is a large number of them, even if they have only small areas of land. It is the same with a lot of smallholders and farmers.

We hear on the ground that the issue is not so much the initial finance that it takes to plant a tree but how stuck people feel once it has been planted. I appreciate that you are looking at that, and I urge you to give the issue serious consideration as you move forward if you truly want those people to come in and play their part in the wider climate change plan.

Mairi Gougeon: I absolutely agree.

The Convener: Just briefly, Dr Emily Taylor said:

> "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."—[*Official Report, Rural Affairs and Islands Committee*, 7 January 2026; c 21.]

She also suggested that that applies to the forestry sector.

How do you see future policy or funding addressing that shortcoming, particularly in relation to agricultural subsidies getting involved in peatland restoration and trees on farms?

Mairi Gougeon: We want to take an integrated approach, which is why I talked about the involvement of different policy areas in the agricultural reform programme. We have talked about the forestry grant scheme and the support that is available through that for smaller-scale planting. I hope that the lessons that we get from trying to overcome some of the barriers that have traditionally existed in relation to peatland restoration through the work that is being taken forward by the Flow Country Partnership are helpful in identifying and removing some of those barriers. We all want to end up in a place in which support is better integrated and there are options available for farmers and crofters.

The Convener: Okay. Thank you, cabinet secretary, and thank you to your officials. That concludes our questions. I will suspend the meeting for 15 minutes, to allow for a changeover of witnesses and a comfort break.

11:09

Meeting suspended.

11:25

On resuming—

Subordinate Legislation

Sea Fish (Prohibition on Fishing) (Firth of Clyde) Order 2026 (SSI 2026/10)

The Convener: For the third item on the agenda, we will hear evidence from stakeholders on the Sea Fish (Prohibition on Fishing) (Firth of Clyde) Order 2026, which is a Scottish statutory instrument subject to the negative procedure. I will invite the stakeholders to introduce themselves in just a moment.

We have approximately 75 minutes for this discussion. Given that we have quite a few participants, I ask everyone to be succinct in their questions and answers. Just indicate to me or to one of my clerks if you wish to participate at any point. There is no expectation for you each to respond to every point of every question, especially if you feel that the point has already been made. It would be helpful if you could restrict your involvement in the discussion to your area of expertise.

You will not have to operate your microphones, as broadcasting will do that for you. I ask you to wait until you see the light on your microphone turned on before you start to speak, to ensure that everybody hears the start of your contributions.

We will start with Sean McIlwraith, on my left. Please introduce yourself.

Sean McIlwraith (Clyde Fishermen's Association): Hi. I am a fisherman local tae the Clyde—fourth generation. I am here today for the discussion on SSI 2026/10, which affects where we can fish: we cannae fish on wir doorstep.

Alastair Hamilton (Regional Inshore Fisheries Groups Network): I am chair of the south-west regional inshore fisheries group.

Dr Robin Cook (University of Strathclyde): I am a fisheries scientist at the University of Strathclyde.

Kenneth MacNab (Clyde Fishermen's Association): I am co-chair of the Clyde Fishermen's Association. I have fished in the Clyde for all my 55 years, using every method known and catching every species known to be caught in the Clyde. I am here today to try to save what we have left of the fishery and, more importantly, to try to save the community that I have lived in all my life.

Megan Hamill (Community of Arran Seabed Trust): Hi. I am a trustee at the Community of Arran Seabed Trust, a community-led organisation contributing to the conservation and restoration of the seas around the Isle of Arran and the Clyde.

Esther Brooker (Scottish Environment LINK): Good morning, everyone. I am the senior marine advocacy officer at Scottish Environment LINK, and I work with LINK's marine group.

Elaine Whyte (Clyde Fishermen's Association): I am from the Clyde Fishermen's Association, and I am here to represent mixed-gear fishermen—static, mobile and line—in our membership. We are one of the oldest fishing associations in Scotland.

Rea Cris (Open Seas): Good morning. I am public affairs manager for Scotland for Open Seas. We advocate for sustainable fisheries and healthy seas.

Professor Michael Heath (University of Strathclyde): I am a fisheries scientist at the University of Strathclyde.

Alex Watson Crook (Sustainable Inshore Fisheries Trust): I am from the Sustainable Inshore Fisheries Trust. SIFT believes that the Clyde can and should be more than just a shellfishery and that strong cod stocks and other white fish could bring that forward.

11:30

The Convener: Thank you. We have about half an hour for each of our three main themes. The first theme covers science, evidence and the targeted scientific programme that we have heard about.

I will kick off the questions. What does the most up-to-date scientific research tell us about the main pressures on the Clyde cod stock? Do you have any concerns about that research or its limitations?

Dr Cook: We have circulated a summary of the assessment work that has been done at the University of Strathclyde over the past five years or so. Ana Adão, a PhD student, has done much of that work, which focuses mainly on the likely size of the cod stock and the principal sources of fish mortality.

The assessment work shows that the amount of spawning stock has decreased from about 1,500 tonnes in the mid-1980s to about 50 tonnes. The fish mortality rate has tended to be very high over that whole period. In the earlier period, much of the mortality was due to a directed whitefish fishery. That fishery has largely declined and disappeared, but a nephrops trawl fishery and other static gear fisheries have continued to take cod as a bycatch.

It appears that the mortality rate related to the fishing that is still occurring is preventing any

significant recovery of the cod stock. The cod stock has declined to a very low level, but there has been a very slight increase over the past five to 10 years, probably as a result of the absence of the directed whitefish fishery.

The cod stock is in very poor shape, and the analysis suggests that, if we want it to recover, we must reduce the residual fish mortality that is due to the remaining fishing activity. That mortality is caused largely by the bycatch of cod as a result of the fishing that is still taking place. If the objective is to recover the cod stock, we must reduce the bycatch somehow. That is the principal message.

Kenneth MacNab: How old is the data on discards that you are using?

Dr Cook: There are three main components to the data that we used in the analysis. We used research vessel survey data from 1985 to 2019, data on recorded landings from all fisheries that were active from 1985 to 2019 and detailed observer data from 2002 to 2019. The assessment covers 1985 to 2019, so it tells us something about what happened over that period. The assessment is now five years old, and we do not have data from 2020 onwards.

Kenneth MacNab: I just wondered, because we constantly hear from campaign groups that use discard data from the early 1990s, which was before all the nephrops trawlers started to alter their gear to avoid discards. We have come a long way in reducing discards.

In 2014, the Scottish Fishermen's Federation ran an observer trial where it observed 380 trips on nephrops trawlers, and the discarded cod amounted to 1 per cent. I find it amazing that you are talking about discards in the nephrops fishery, because it is almost a clean fishery after the introduction of square mesh panels, larger mesh sizes at the headline of the net, changes to the configuration of the gear, and low-standing nets.

Over the past 15 or 20 years, fishermen have had to do the most difficult thing that any fisherman ever has to do: they have had to learn how not to catch fish. After being trained for a lifetime to catch fish, they have had to learn how not to, and they have been very successful at it. I would take any scientist or campaign group member to task on that fact; indeed, we are willing to take them out to sea at any time so that they can see how clean the nephrops fishery is.

As for the cod—and you will notice that I do not refer to them as "Clyde cod", because that is not correct—the cod stock that we created this closure for in 2001 came to the Clyde to spawn every year. There were small pockets of local cod, but the main cod fishery came into the south end of the Clyde every year, starting when the closure started—that is, February into March. The main time was St Patrick's day, 17 March.

We closed it for a good reason. At that time, we could see that the stock was going to be annihilated, because there was a closure in the Irish Sea and we were going to have the rest of the boats visiting the Clyde to take it. The local fishermen decided to take this action. In the first year it was voluntary, and then it became mandatory. Marine Scotland made it mandatory, and we were quite happy with that.

I do not refer to the cod as "Clyde cod" because they would come in for only four or five weeks. I mean, if I went to Aberdeen for four or five weeks of the year, you would not call me an Aberdonian, so I do not see why we would call these cod "Clyde cod". When they left, there were disputes between the scientists over whether they went to the west coast or to the Irish Sea. Irish scientists tagged some of the cod and we discovered that they actually went to the Irish Sea.

These cod were being fished for 10 or 11 months in some other part of the sea, and yet everybody refers to them as "Clyde cod". When the stocks go down, everybody says, "They are going down in the Clyde." Just think about it. When is the bigger chance that they will get caught: the 10 or 11 months that they are out of the Clyde, or the five weeks that they are in the Clyde? I know where I would put my money—they are caught elsewhere.

I want to make another point about the science. In my experience and after 55 years studying nature and the Clyde—as you have to do if you are a fisherman—I can tell you that cod need two things, as do all other demersal species: a source of food and the proper conditions, especially the proper water temperature. The Clyde is bereft of food, and it has been for the past 20 years. There is nothing for the cod to eat. That is why nothing grows—and I am talking not just about cod, but about many other species.

There is one thing that has gone missing. I do not know whether you will remember this, but when you were younger you might have gone out steaming on a boat at night, and you would have seen the phosphorus in the water. It was how the old fishermen used to look for herring and mackerel, and it was created by plankton. That is not there any more. For the past 20 years, you could steam all night, every night, and you would not see that. That is a sure sign that the food has dropped. It has dropped to levels that I have never seen in my whole lifetime. That is also one of the reasons why you have a decrease in your bird population.

The Convener: That is a good starting basis. I will go around the table, as people will want to feed

back on some of the comments that Kenneth has made. I will bring in Michael Heath first.

Professor Heath: I will come in on a number of Kenneth MacNab's points.

First of all, there is the issue of whether the cod that were caught in the spawning fishery are actually Clyde cod. All the tagging data that has ever been collected in the Clyde shows that fish tagged in the Clyde, or in the fishery on the sill, are always caught in the Clyde. Only a very small proportion of the fish that are tagged in the Clyde are ever recovered elsewhere or in the Irish Sea. The scientific and genetic evidence is very strong that it is a self-contained and isolated population.

On discarding, you said that cod are 1 per cent—but 1 per cent of what? You were not clear about that. It is not the percentage of cod in the catch that matters but the percentage of cod in the sea that are caught. The first question is, therefore, 1 per cent of what? However, the point is that the discard quantity has gone down because the stock has gone down.

I absolutely agree that there have been great measures to improve the selectivity of the fishing gear to reduce bycatch. However, in the notes that we sent out, there is a graph that shows the quantity of discard from the nephrops trawlers from 1990 to 2019. It is currently sitting at about 40 tonnes a year. That does not sound like very much, but when the stock is only 40 or 50 tonnes a year, it is an awful lot.

All of the data that is collected by the SFF is included in our analysis, and it now faces a problem, because it is denied access to Clyde boats. No samples of discards have been collected by the SFF on observer trips since 2020. It has been denied access, and that is not right. That should not be the case.

Regarding food for cod in the Clyde, the evidence from the plankton sampling that has been done is that there is no shortage of food in the Clyde. It is an extremely productive and rich area, and other fish species are not having the same problem. We have done a lot of analysis of the growth rate of cod in the Clyde, and that shows absolutely no trend over time at all.

I have some issues with quite a lot of what you said there—not all of it, but quite a lot of it.

Kenneth MacNab: I have some issues with what you have said, too, because no boats have told the SFF that it cannot come and do observer trips. We had an observer on board two years ago, during the cod closure. It was a Marine Scotland observer and he was out for three days, and we caught an average of between 700kg and 800kg of nephrops each day for the three days. There was not even any cod, but he had total discards, mainly small whiting, and he had 5kg for the three days. Do you think that we have done quite a lot on discards, if that is the case? You do not have any up-to-date evidence over the past five years, Mike.

The Convener: You can come back briefly on that, Mike, and I will then open up the question a little bit more.

Professor Heath: We have all the evidence from all the observer trips up to 2019. We have all of that data from all sources, both the marine directorate and the SFF. From 2020 onwards, we do not have the data. As far as I know, there have been only five observer trips in the Clyde, and none of those were done by the SFF.

The Convener: It is clear that we have some disputes over the validity or robustness of the science. One of the issues that we have had since I became an MSP is that the evidence that we have heard on the Clyde box science has been less than adequate.

It is also important for the committee to understand whether the approach that the Government has taken regarding the SSI reflects the evidence that it suggests exists. There are questions around whether the Government's approach reflects the evidence and has been evidence led.

11:45

Professor Heath: The marine directorate has now accepted the quality of the science. We had a long and productive meeting with it in October, at which it was clear that the assessment, as it now stands, uses a vast amount of data—more than for many other fish stocks around Scotland. It is absolutely happy with what we have done.

Elaine Whyte: I emphasise that we have been willing to do trials. We did trials from 2016 to 2018 with our own local boats, working with St Andrews University. We have also done a lot of work with Stirling university. Those are very trusted universities. It is a shame that some of those reports were not used, because they probably contain the most practical data that we have available. We did not want to hang any policy decisions on that data, because we accepted that it was the start of a journey. However, it showed that the cod is there and that it is slightly higher in the water column.

Just so you know, Mike, we were keen to keep the science going. We are not part of the SFF, which a lot of funding for the observer data programme goes through, although we are a member of the Centre for Environment, Fisheries and Aquaculture Science. We were keen to keep the science going, and any stoppage was not from

our side; we actually helped to fund it. However, we did not want to go ahead and do the work ourselves without the marine directorate because we did not want to be seen as partisan. We wanted the science to be seen to be neutral. During the closures, there were observers in from the marine directorate, and compliance was in regularly to measure the cod and so on. There is a willingness to work on the issue, and we want to work on it.

In relation to the model that you are using, Professor Heath, we understand the details of the meeting that was held in October, and we have also spoken to the marine directorate about the model. As far as I am aware, there is no problem with the model itself, although there is an issue with data deficiencies. The feedback from the marine directorate is that we need to work on the data that goes into the model. It has also been candid with us about the discussions that it has had with you.

My wider concern is that we are having such a specialised discussion about Clyde cod, and we are having it all the time. The Clyde is being discussed more frequently than anywhere else. At one of the previous committee meetings, I think that the Clyde was mentioned nearly 20 times while the North Sea was mentioned three times. That shows the proportionate effort that is being made. We were the pilot area for marine planning in 2020, we were the pilot area for the cod box and we were the pilot area for no-take zones. We have been the pilot area for everything, which I think is sometimes more about politics than anything else. Over the past couple of years, there has been an exceptional strain on a small organisation that is more than willing to work on the issue. Our fishermen are pulling their hair out; it is just hard going.

More widely, I am concerned about whether the issue is entirely about fishing. There was a good paper by Karl Michael Werner from the Thünen Institute in Germany, which came out just a few weeks ago, in which he talked about a global warming phenomenon that happened in 2003 and affected feeding. That builds on the work that we have previously mentioned by Clausen, Toresen and Hatun. We also put some work in with Cefas, which came out in the summer. They all say the same thing: the water is getting warmer, so different types of stocks are coming in. That is not just happening in Scotland; it is happening in Norway and it is happening everywhere. Yet, all that we talk about is the Clyde.

If we are serious about finding out what is going on with our stocks, we should be considering the issue on a nationwide basis. It should not be focused on just one tiny area; it should be about all of us. Why are we considered to be exceptional? We are not. To be accurate, we need to consider this on a nationwide basis. We also need to look at stock composition, which is really important.

We talk so much about bycatch, sediment disturbance and all those other things. However, the closure was a voluntary measure by the local fishermen at a whitefish feed that is no longer there or commercial. If we want to consider the composition of the stocks, we should be doing finfish trials, not just bycatch trials.

We are also talking about doing the targeted scientific programme, but we need to know what the details of that will be. It would have been good to come to this meeting knowing those details. They need to be worked up so that we can all have confidence going forward.

Rea Cris: In response to the convener's question about pulling back a bit and what the Government should be doing, it is important to note that there is a disparity in the evidence standard being used. There is a real concern here that evidence-led policy is becoming policy-led evidence.

It is also important to remember that there are a lot of statutory obligations that the Government has not really demonstrated that it is following. For example, section 1(5) of the Fisheries Act 2020 says that

"the best available scientific advice"

should be used to make management decisions on fish and aquaculture activities. Further, "Scotland's Fisheries Management Strategy 2020-2030" states that the Government will always take an evidence-based approach by

"fully utilising the data and knowledge available at all levels".

At the moment, I do not think that the Government is demonstrating that it is doing that.

Another thing that the Government is not demonstrating is how it has assessed the SSI against the national marine plan. If it has not done that, it would be in breach of the legal obligations that were established in the Open Seas Trust v The Scottish Ministers [2023] CSOH 39 judicial review. I implore the committee, when the cabinet secretary is before you, to ask how the evidence is being used and how the Government is using an evidence-based approach and the best available evidence. It is for the Government to explain that and justify it with regard to the SSI.

Esther Brooker: The Scottish Government takes a very precautionary approach in this particular case, which Scottish Environment LINK believes is justified, given the poor state of Clyde cod and, in fact, cod populations more widely in Scottish seas. However, the Scottish Government's response to the consultation does

not necessarily fully reflect some of the evidence that is available, some of which we have heard about today.

There is a focus on maintaining the closure, which is valid on a precautionary basis, and there is a focus on a targeted scientific programme, which is also a positive step. However, the Government citing those programmes as a reason not to pursue management measures to address other issues for which we have evidence is perhaps something that needs to be reviewed.

Alastair Hamilton: It is clear that, after 20 years of closures, this approach is not doing anything to improve the Clyde stock. If the Government were to be congratulated for anything, it would be that it is prepared to evolve the management measures here. This has been a damaging closure to the industry and it cannot be allowed to go on in perpetuity.

Dr Cook: You asked whether the science would support the measures that the regulation is intended to address. The regulation is very much focused on a closed area for spawning. Essentially, the Government is saying that it wants to protect the spawning fish, which is reasonable.

However, there are two very important points that question whether closing a spawning area is the most useful thing to do. First, in relation to productivity, Kenny MacNab mentioned that he thought that there was not enough food. However, if you look at the production rate—in other words, the number of juveniles that are produced per female in the Clyde stock—it increased rapidly before the spawning closure was introduced. That was a direct response to heavy exploitation—as you reduce the spawning stock, it tries to respond by being more productive. The spawning closure is not enhancing productivity in the stock—that natural phenomenon occurred long before the spawning closure was introduced.

The other thing is that, if you accept our analysis as a reasonable characterisation of the status of the stock, nearly all the fish that are being caught currently are juveniles and very few are spawning fish. Therefore, around 90 per cent of what is being caught are fish that have been born that year or are one year old. That means that fish are being caught before they spawn, so, when a spawning closure is introduced, it is too late: much of the spawning potential has already been lost by catching the fish when they are very young. That is why one should ask the question: if we want to produce a more productive or healthier stock, is introducing a spawning closure really the optimal thing to do?

The Convener: On a point of clarification, we heard previously that closure was all about ensuring the best spawning conditions. We heard that leisure boats or whatever were being excluded because they would have an impact. I remember cringing at hearing some of the evidence from the Scottish Government that the noise of engines could affect the ability of cod to spawn. Are you being clear, however, that there is no issue with spawning? The fish that go to spawn are spawning quite happily, if you want to put it that way. In fact, the spawning level is actually increasing in the Clyde. Is that, in effect, what you are saying?

Dr Cook: Not quite. The productivity of the spawning population was increasing before the spawning closure. When the closure was implemented, that level of productivity remained static. It increased to the point when the spawning closure was introduced, and it has stayed at a high level ever since.

Ariane Burgess: I will come to Dr Cook in a moment, but I will start with Alastair Hamilton.

You said that the closure is not doing anything—in fact, Dr Cook said that it is not enhancing the stock. You said that the focus is a closed area for spawning but asked whether—I am paraphrasing you, because I cannot write that quickly—that is the most effective way to protect a spawning stock. What would another way be? From what I am hearing and from what I have read, this approach is not doing what we need it to do, which is to protect the cod and make sure that we have a future cod stock. What else could we be doing that might be better?

The Convener: I am really sorry to interrupt, but can we focus on the science at the moment? We will go on to alternative methods later in the questioning, so I ask members to stick to questions in science.

Beatrice Wishart, do you have a question around the science and the Government's approach?

Beatrice Wishart: I have a question around the science, for those who are best able to answer it. What could we expect from another three years of monitoring? Perhaps Professor Heath might answer that.

Professor Heath: Well, part of the monitoring has disappeared. The observer programme, which monitors what is actually caught, has declined to a very low level of activity. It must be reinstated, because there is essentially no monitoring of what is being caught. The research vessel surveys are an absolutely vital part of all this, and they will surely continue, so that element of the science is going ahead—in safe hands, I am quite sure.

Beatrice Wishart: I just wonder whether, in three years' time, we will be sitting here, asking the same questions.

Professor Heath: I think that this is an emergency. When the stock has gone from a spawning stock of 1,000 tonnes in 1985 to something less than 50 tonnes today, I think that that is an emergency. I do not think that we can afford to wait three years for an answer from the science programme. We have the data, and we know what to do in order to analyse that and give some advice on what might be done.

Alex Watson Crook: I agree with Elaine Whyte on the targeted scientific programme, which has an extension to three years—that is why the committee has been asked to extend what is usually a two-year order. There are no details at all around the TSP; we do not know what it looks like and we need to know. It must surely focus on monitoring new methods of how to bring the stock back—I know that we will come on to those—but there is no detail at the moment. What will the TSP bring us? That was Beatrice Wishart's question: how does this assist us? It is my understanding that the marine directorate absolutely accepts both the methodology and the robustness of the data. I think that the science is now incontrovertible, so we must move forward to work out what we do next.

Elaine Whyte: Again, I will come back on that point. We have been informed that the marine directorate would not debate the model, but that there are data discrepancies before 2002 and after 2020. That is the feedback that we have had from the marine directorate—that the model is not in question, but that the information that is feeding the model is. That is what we have been told directly.

12:00

To go back to another point, we are all talking about the science and I am just upset that the people from the University of St Andrews are not here, because they are the ones who have come out and done practical work with us, and they have quite a different take on what is happening. It would be great if they were around the table as people who have been out on boats and have seen what is happening.

We are talking about cod as though it is the only fish that is there, but I have talked about stocks coming in. The biomass in the Clyde is far higher than it was in 1930 and 1940—that is a fact. It has gone up and up; it is just different types of fish. As Professor Heath said, sometimes it is smaller fish. However, we have to see the reality of the climate, and I really think that we have to speak about it.

NatureScot has recently put out information on the increase in flapper skate on the west coast of Scotland. We have had closures for that for a long time. We have various other predators coming in, such as spurdog, that are impacting what is happening at sea as well, but we are looking only at cod. I do not think that we can do that, and we cannot look only at the Clyde. That is not the way to do it.

I completely agree that we need to have science behind the approach, and I am not sure why Professor Heath thought that we would not want that, as we have been pushing for it for a long time. However, that has to look at climate, predation, seal numbers and all those things. We need to look at the international research that is being done, as the same is happening everywhere. Can we stop making the Clyde a special case and really look at the information that is out there?

Kenneth MacNab: I totally agree with Elaine Whyte. We seem to be concentrating on one thing: discards. That is not the way that I see it and it is not the way that fishermen see it. We now have temperature sensors on our gear and we have recorded seabed temperature every day for the past 20 years, and we get the surface temperature as well. We are seeing things happening in temperature that we have never seen before. The week before Christmas, before we stopped fishing for the year, we saw something that we had never seen before: the seabed temperature and the surface temperature were the exact same, between 11°C and 12°C, which is abnormally high for that time of year.

When it comes to the closure time this year, I reckon that, because the water has been that warm over the winter, the conditions will not be any good for cod to spawn. It will be too warm. We are seeing this every day, and nobody is doing anything about it. It is not even mentioned in any of the scientific papers—no mention at all. The paper that Elaine Whyte spoke about that the Norwegians and the Germans published just a few weeks ago talked about the north Atlantic flow. It gave two specific years—2002 and 2003—which were extremely warm years in the sea. We see it, and I have seen it personally over 20 years.

In 2014 or 2015, I did a trial with our boat for Marine Scotland for two weeks with semi-pelagic gear. We were looking for cod, because everybody told us there were no cod in the Clyde, but we knew that that was completely wrong. The cod had moved into the deep water. Because the shallow water was warmer, they had moved from it into all the deeper areas of the Clyde. They were not on the bottom—they were off the bottom slightly by five fathoms—but we had the gear that could catch them, and we caught cod. We caught cod, and all good-sized cod.

That was in 2014. Because the water is even warmer now, we are now seeing that they are disappearing from those areas as well. As Elaine

Whyte said, we do not look at other predators. The seal population has gone up, as have the populations of flapper skate and dogfish. We had a guy who transitioned away from trawling and tried static gear, such as gill nets and lines, and he shot his lines and gear down in that closed area in the summer. Where the cod spawn, hake spawn in the summertime and always have done. He put his nets down and, when he lifted them up, he found that any hake that he had caught in the nets had had the bellies ripped out of them by either dogfish or seals—and I have photographic evidence of that. It became not worth his while doing it.

We have two protected species, one of which is dogfish. We can sell some now, but they must be of a certain size. That fishery had been closed for years, however, with a zero total allowable catch. Then there are flapper skate, which have appeared in massive numbers. Those species are both bottom feeders—they feed on the bottom. If cod were to spawn, that spawn would disappear within hours. There are so many dogfish and so many flapper skate. The things that we are protecting are destroying the demersal stocks before they even get to grow.

The Convener: Okay. Thank you. I—

Kenneth MacNab: We need to have a big look at this. It is not happening just on the Clyde; it is happening everywhere else, too. Why we are just picking the Clyde for these measures, I do not know. It does not make sense.

The Convener: We will now hear from Esther Brooker and then from Professor Heath again.

Esther Brooker: The targeted scientific programme, proposed for three years, is a positive thing. As I mentioned earlier, however, it is not a substitute for action on other issues that we have evidence for. The targeted scientific programme would need to be well resourced, and I question whether the kind of resources that we need in order to answer the questions that are coming up through the programme are available.

We have other management interventions that can support monitoring that we are still waiting to be fully rolled out. Those include having remote electronic monitoring with cameras across our fleet. That is an important thing that needs to be taken into account.

Some of the impacts that have just been raised involving warming waters and predation are more natural things that can be taken into account in fisheries management, but they cannot necessarily be controlled through direct intervention. We need to concentrate on those things that we can control through direct interventions.

Professor Heath: Returning to the point about climate change, it is absolutely right that, in the North Sea, warm years produce poor recruitment. There is an inverse relationship between the two, and both Robin Cook and I have written about it in the past. The evidence from the Clyde does not show the same thing to be the case: there, the warm years do not produce any signal in recruitment.

Why is that? As Kenny MacNab mentioned, the Clyde is an unusual place. It is very deep in places and has pockets of cold water in the deep basins, where cod and many other species can take refuge under warm conditions. In fact, the Clyde has been a refuge for certain plankton species, which have sat there since the last glaciation. Calanus finmarchicus is an Arctic residue left over from the last glaciation, which still lives in the Clyde. It should not be existing at those latitudes at all.

It is absolutely right to say that climate change is happening and environmental change is happening. If we want to keep cod in the Clyde, fisheries management has to respond to that and adapt. If productivity is going down due to environmental change, the fisheries probably have to be scaled back in order to compensate for that.

The question is: does anybody want to keep cod in the Clyde? What I am hearing from those in the fishing industry is that they do not really care about that. I think that we should keep it there. The Clyde stock is genetically unique, it is in an amazing climate refuge and it is an important part of Scotland's biodiversity. I think that we should care about it. I am not hearing that from around the room, however. I am not really hearing a clear statement from those in the marine directorate that they think that the cod is worth saving. That is the key question. If you think that it is worth saving, we should get up and do something about it—but I am not hearing that.

Elaine Whyte: The people on our boats that are doing the temperature surveys could tell you that there is an increase in the Clyde. Kenny MacNab has just said that in terms of water temperature. I do not believe that any of us has said that we do not want the cod to be there—so I will speak for myself, please. It is not that.

The reality of what we are dealing with on the ground involves different stocks coming in. I will quote some of my colleagues from Shetland who have given us figures. Over the past 20 years, the abundance of bony fish there has increased by 94 per cent; six species of crab, lobster and scallops have increased by 99 per cent; and 37 species of sharks, skates and rays have increased by 301 per cent, against a global decline of 71 per cent. A NatureScot study showed all that. Eleven species

of squid and octopus have increased by 398 per cent. That shows that things are changing on the ground. It is not that we do not want any particular stock to be there; it is just that there is a reality of the environment changing, and we have to be responsive to that—and sensible.

The Convener: I am conscious of the time. I will bring in Evelyn Tweed now, and Emma Roddick has a supplementary question. We will put those questions together and hope to get some answers from the stakeholders.

Evelyn Tweed: I want to dig a bit more into the point about the targeted scientific programme. Esther Brooker said that she felt that it was positive, but it needed to be well resourced. Alex Watson Crook also said that it was a positive measure but that it needs more detail.

I would like to get answers to a number of questions from the wider group. Will the programme improve evidence? Will it improve trust? Will it lead to more collaboration?

The Convener: Do you also want to ask your question now, Emma? We can then address the two questions together.

Emma Roddick: I can do that, yes. I want to pick up on Dr Heath's comments about protecting the cod. I understand the keenness to protect it as a specific species. Going back to your comments about the uniqueness of the Clyde, Dr Heath, I wonder whether there are wider implications around biodiversity or viewing the cod as an indicator of the health of other species in the area, which also makes it important.

Professor Heath: The Clyde is a unique environment. Some of the most polluted areas of the UK's waters are in the Clyde, and some of the most pristine and cleanest waters are also in the Clyde. That is why there are marine protected areas there: because it is a hotspot for endangered species that need to be protected—not just fish, but benthos, plankton and wildlife in general. The Clyde is indeed a unique place, which comes from its geology and geography. Cod are part of that system and they have been for centuries.

Yes, things are changing. The amount of haddock in the Clyde is increasing enormously. There is a very high stock of haddock there. Other species are coming in, and there is a turnover of species all the time. Cod have been there for centuries, however. Do we want to be on the watch that sees it disappear?

Emma Roddick: If we lost cod, would there be a risk to any other species, or are there other considerations in the Clyde?

Professor Heath: I am sorry—could you repeat that?

Emma Roddick: Would the loss of the cod cause other impacts on other species down the line?

Professor Heath: That is a difficult question to answer.

Dr Cook: I am afraid that I have a bit of a cynical view in relation to the targeted scientific programme. Having read the documents, I took them to say that we do not know enough, so we must have a targeted scientific programme. In other words, it is a case of, "We do not have enough knowledge to take any action now, so we will wait three years." I do not think that that position is reasonable.

Elaine Whyte mentioned that the marine directorate has accepted the methodology for the assessment but that it does not have confidence in the data. Okay, there are certainly weaknesses in the data, as there are in almost any stock assessment that you might choose to look at. However, we were aware of the weaknesses in the data in the assessment that we did. We did a very extensive sensitivity analysis, which showed that, even if you knew certain things that you currently do not know, the broad conclusions of that assessment remain. In other words, there has been a dramatic long-term decline in cod and there is a very high fishing mortality rate.

Getting more data will improve the precision of that assessment, but it will not change the general result. We are in a position to say that we know something about the state of the stock, and we are in a position to say what sorts of things would likely produce some kind of beneficial effect.

Alex Watson Crook: In response to Evelyn Tweed's point about the targeted science programme, I would say that it would be welcome if we knew what it actually looked like, and if it addressed the right things. It does not appear to be doing that at the moment—I think that most of us would agree on that.

Cynically, we might say that the Scottish Government is proposing an additional collection of data for three years simply to maintain the status quo, and the status quo of the particular legislation is that it is now a quarter of a century old and is not fit for purpose if we are aiming to achieve what we need to do.

The TSP needs to seek the right information, but it is not doing that at the moment.

I go back to what Rea Cris said: it is an illustration of policy driving the science, not vice versa. That really is not good enough. We cannot avoid robust, credible evidence for the sake of discredited policy agendas. We need a TSP that looks at how we manage and minimise bycatch.

12:15

We also need to consider the ban on creeling. I know that there are issues with the science around creeling that we have not touched on. At the moment, there is no evidence that creeling is having a disturbing effect, so that needs to be dealt with in the order as well. We need to lift the prohibition on creeling.

Kenneth MacNab: Mike Heath suggested reducing effort in fisheries to try to save cod. I refer him to some marine directorate figures. Thirteen years ago, we had 66 vessels over 15m in the Clyde; we now have 15. We have lost two thirds of our fleet under 15m.

The total sea area of the Clyde is about 3,600km^2. You cannot possibly fish all that, but that is the sea area. In those 13 years, due to the establishment of five marine protected areas and 18 fish farms, and the loss of ground to the Royal Navy, we have lost about 1,150 km^2, which is a third of our fishing area. That has resulted in the decimation of communities.

When I walk along the front street of the village that I live in, I could weep. Fifteen years ago, we had a thriving community with about 25 boats. Since that time, I have seen three hotels, three restaurants, two grocers' shops and two banks shut, and the community is now a shadow of its former self. That is mainly down to losing the fishing.

We have fish farming, which helps slightly—we took some of those jobs—but in our community of 1,400 people we lost about 60 full-time jobs.

The Convener: I am sorry to interrupt you. We will come back to the socioeconomic part of it so that you can focus on that. We appreciate that that impact is an incredibly important part of the legislation, and I will come back to you on it, but let us come back to the science again.

Professor Heath: I just want to say, briefly, that I have never advocated for reducing fishing effort. What we need to do is improve the efficiency of the fishing so that it is not taking the bycatch. That is the key thing.

Kenneth MacNab: That is what we are doing.

Professor Heath: I know that, but it needs to go further. The focus of the targeted scientific programme has to be figuring out how to make fishing gear even more efficient at not catching cod.

The Convener: I call Elaine Whyte, and then we will move on to our next topic.

Elaine Whyte: I want to respond to Alex Watson Crook. She said that we can all agree that we have enough science, but I do not agree with that point. We have to work on trust and we need to work on practical science. A lot of trust has been lost.

Just so that everyone knows, we have been doing quite a lot in the meantime. We have a BAT map—bycatch avoidance tool mapping—project, which looks at instances of high-density catch of things that we do not want to catch. We developed that ourselves, so Mike Heath might not know about it.

We have to make communication better, because there has obviously been a breakdown. We talked to the University of Stirling and we are talking to the University of St Andrews. Maybe the University of Strathclyde does not know everything that is happening practically in the science. We are happy to work on that.

We are talking about something that happened in 2019. That is not five years ago—it is seven years ago. We really have to get science on the issue that we trust.

We talked about getting observers on fishing trips. That has been difficult to do, because, as Kenny MacNab just indicated, there are hardly any boats out there some days—our fleet has been decimated. Trying to get people who are able to take people out is quite a challenge, because of the state of our fleet.

I would argue that decisions are being made on a precautionary principle, because there is a fear of management by litigation. That is where we are, and we have to get out of that space.

Alex Watson Crook: I have a question for Elaine Whyte. Is the data that is coming from other academic establishments being shared with those in the marine directorate, because they are the key people?

Elaine Whyte: Yes. We have always insisted on doing everything with the marine directorate. You should know that, because I think that you made a freedom of information request for the previous report, and took the matter to the Scottish Information Commissioner. There is also information from the BAT map system, on which we are working with other partners.

The Convener: We will move on to look at proposed management measures, with questions from Beatrice Wishart.

Beatrice Wishart: We have already heard, in discussing the science, views on whether the proposed three-year period for the SSI is justified. What adaptive review mechanisms could be included in that period? Does reinstating exemptions risk undermining the conservation intent of the closure? Could tailored, controlled exemptions achieve a more balanced outcome?

The Convener: Who would like to kick off? The proposed three-year period raises concerns about whether any interim measures will be brought forward on the back of some of the work that has been done.

Esther Brooker: I would turn that question around and ask the Scottish Government what adaptive management mechanisms there are in its fisheries policy. The Scottish Government is not particularly strong in that regard—when new evidence comes in, things do not necessarily change particularly rapidly.

The Convener: Would anyone else like to comment on interim measures?

Alastair Hamilton: I would like some advice on whether removing the measures that were introduced in 2022 to prohibit creeling, in particular, would jeopardise any scientific programme. I do not believe that they have any impact on cod stocks.

The Convener: Ariane Burgess, would you like to come back with the question that you started to ask in the previous set of questions?

Ariane Burgess: Okay—thank you, convener. I will see if I can cobble it together again. I was inspired by Alastair Hamilton's point that the closure is not doing anything and Robin Cook's follow-on point that it is not enhancing the stock.

Dr Cook, you said that the closed area is focused on spawning, but you asked whether that is the most effective way to protect spawning stocks. That inspired my question: what else could we be doing?

Dr Cook: As Professor Heath was saying, I am quite sure that, in trying to improve the selectivity of the gears that operate, fishermen are doing everything that they can to avoid catching cod. They have made modifications to gears and so forth. It is a question of what more we can do to improve that selectivity, so that nephrops trawlers do not catch any cod and reduce the stock.

There is a question about creels, which I find unclear. The Scottish Government—or at least the marine directorate—has argued that there may be significant bycatch of cod in creels. The Government says that it has data on that, but I have asked it a number of times to explain what information it has and I have not received any indication as to what those data are. I understand that those data do not come from the Clyde.

It is possible that there is a bycatch in creels that needs to be addressed. I would have thought that that bycatch was pretty small, but I do not know that.

Ariane Burgess: I want to dig into that a bit more, and then other people can come in. Are we using the right measure? If we took that measure away, what could we be doing to get us where we want to be—protecting the cod stock?

Elaine Whyte: A few people have mentioned creels and mobile fishing and the impact of that. The convener is entirely right—when the report initially came out, it said that any noise at all had an impact. That could be noise from leisure boats or anything.

My argument, therefore, is that the approach is not right for creel boats or for the small mobile boats that operate in there either. I do not think that the initial measures were ever right for the small fleet.

I point out, while we are talking about this, that our guys have a licence, the same as everybody else nationally has a licence. They have quotas and they do everything the same as everyone else. However, our guys are being curtailed in a way that nobody else is nationally; their markets are being curtailed as well their ability to fish and their science.

If we want to do things better, we need to work with the marine directorate, because we need an honest party in the room. We cannot let this be political or have fishermen turned against fishermen, depending on their gear type. I have guys who fish with both of the gear types. I do not want it to be political—I want us to have a decent science programme that makes sense. I would like that to be rolled out nationally to some extent before we start making decisions, because the issue is bigger than just the Clyde.

The Convener: I will ask a supplementary question that is political. Is this situation typical of the Government, which wants to be everybody's friend and is unwilling to make the really hard decisions, based on the science, that are going to annoy some people?

We have heard previously that one of the reasons that the Government excluded everyone was to ensure that there was no discrepancy, or a drop-off in the markets, for boat-based nephrops fishing. That then saw creelers benefit from their competition being excluded.

The idea was to say, "Let's just ban everyone, so we're not pitching fishermen against fishermen." Ultimately, however, if the science suggests that the biggest impact on the cod population in the Clyde is bycatch from nephrops fishing, the Government needs to take the bull by the horns and do something about that. It needs to support the nephrops business and incentivise gear innovation and different types of fishing while ensuring that the sector does not lose out. However, the Government is just not willing to do that.

Elaine Whyte: If that is a question to me, I think that, again, it is a national issue. The Clyde is the focus because we have done things. Our men themselves implemented the closure, and we brought out the no-take zone.

We have done a lot of good things on conservation policy that have actually turned round and bitten us. The issue has become a piece of meat for people to chew on and make it very political.

We have to remember that the whole thing happened because of the Bute house agreement. It was not based on science initially. We are all retrofitting aspects on to it—we are talking about sediment disturbance and bycatch. The measure was to prevent a targeting of white fishery and it has turned into a million different things to a million different people.

Fishermen, whether they are static or mobile, are tearing their hair out. This is about their lives. I know that we will go into the socioeconomics later, but when we hear about what has happened and hear Sean McIlwraith's story and the other stories that I have heard, we see the impact that it has had in real life—away from this table, where we are talking theoretically about models and everything else. It has been really devastating.

The Convener: I will bring in Sean at this point.

Sean McIlwraith: I have a statement here, convener—it is quite long. I do not know if you are happy for me to read it.

The Convener: Absolutely—go ahead.

Sean McIlwraith: It puts everything intae perspective for me.

I am here today as a fourth-generation lobster and crab fisherman from Ballantrae in the Firth of Clyde. Fishing is not just my job—it is my identity and all that I have ever known. SSI 2026/10, with its track-record requirement, effectively shuts people like me out of our own waters. If you do not fit the paperwork, you do not get tae fish, regardless of skill, sustainability or family history.

The closure of the cod box for the fifth year running, combined with the pressure of the interim crab and lobster measures, has meant reduced safe areas to fish in and a reduction of up to 69 per cent of our total catch return at times. Taken together, those measures are making viability for a small community-based boat very, very difficult.

This is not just an economic issue—it has a serious impact on my mental health. Watching your livelihood disappear because of decisions that are made away from the harbour is deeply distressing. People in power may see this as a policy; for us, it is the slow killing of a profession, a community and a way of life that has existed for generations.

We want sustainable seas—we depend on them—but sustainability must include the people who have fished responsibly for decades. Right now, these decisions are pushing local fishermen out, not protecting the Clyde.

The Convener: Thank you, Sean.

I will bring in Alex Watson Crook.

Alex Watson Crook: I hear you, Sean, and SIFT fully supports removing the prohibition—I have said that already, but I will keep repeating it.

I have a question around that—potentially for you, Professor Heath—on what we know about the proportion of cod caught in creels in comparison to trawling. I certainly do not understand that, but perhaps you do.

Convener, going back to what you were saying about the political aspects, and Elaine Whyte's comments on the wider issues and what we should be dealing with nationally and at a local level, I hope that that we do not consider the Scottish Parliament information centre to be particularly political in any way, but, back in 2024, it wrote two amazing blogs ahead of the committee's last consideration of this matter. The last line of the second blog says:

> "Future consideration of the Scottish Government's approach to the Clyde seasonal closure could seek clear answers about whether recovering Clyde cod remains the defining policy objective".

That is so clear. The question is this: is that what the Scottish Government is trying to achieve here? If so, what you have in front of you will not achieve it.

Rea Cris: I want to echo that last point and say that SPICe's two-part briefing is excellent. It also speaks to what has been said around the room about a lack of trust and transparency, and I want to just pull back a bit and highlight the real concern that there is around the marine directorate. The directorate's head of sea fisheries has come in and given anecdotal evidence not once, but twice, and I think that, as parliamentarians and stewards of legislation, you should be highly concerned that the directorate has repeatedly not done what has been asked.

Just to pull out even further, I would point out that a lot of people in this room have been involved in the evidence-taking sessions for your pre-budget scrutiny—they are usually, to the convenience of the marine directorate and the Government, pitched against each other—and they have been talking about a lack of transparency from, and trust in, the marine directorate. It speaks to a wider concern about

what is actually happening at the Government and marine directorate level. If a rogue department is leading, or misdirecting, the Government, it goes back to what I was saying about not having evidence-led policy and not listening to the people whose livelihoods and communities are being decimated. Instead, what you have is policy-led evidence; you are trying to fit the square thing into the round hole, and vice versa.

Therefore, it should really concern the committee that statutory and policy obligations are not being met—and, indeed, are being wilfully ignored. I think that the committee has heard as much on many different occasions; I am thinking, for example, of the inshore fishery management consultations, in which you had marine directorate officials sometimes prejudging a consultation decision. The committee has heard a lot of concerning things coming out of the marine directorate, and I think that that is where the focus needs to be. What is actually going on there?

Dr Cook: In general, the main reason for implementing a spawning closure is that fish, when they spawn, are easier to catch. If you have a directed fishery and you want to protect the stock, it is a good way of going about things.

Given that there is no directed fishery any longer, the question is: is this still necessary? It seems to me that the justification now for a spawning closure is not to reduce the amount of mortality occurring during spawning, but to reduce disturbance. That is an argument that is produced to justify an existing policy—it is not an argument for a policy.

I have the benefit of looking at stocks all around the world, particularly in the United States, Namibia and South Africa, and I have never heard it argued that disturbance to spawning fish is a problem. These fisheries are not dissimilar to those that we see in the Clyde. I think, therefore, the argument that disturbance from whatever source is a factor is not sustainable.

Moreover, as I mentioned earlier, if you look at the rate at which recruits are produced per female, you will see that it has increased, not decreased, over time, and you would have expected that productivity to decline if disturbance was a factor. It is not evident in the data.

The Convener: Would reinstating the exemptions significantly impact the outcomes that the Scottish Government wants to achieve, or is this tool just simply so unfit for purpose it would make no difference, given that most of the exemptions have been developed around disturbance to spawning?

Dr Cook: The disturbance argument is really neither here nor there—I do not think that these measures will reduce disturbance to such a degree that it will have any noticeable benefit. There might be an argument that excluding nephrops trawling during the spawning period might reduce fishing mortality to some degree, but that has nothing to do with disturbance.

Ariane Burgess: On a point of clarification, what kind of disturbance are we talking about? Is it disturbance from sound, from trawling, from contact with the bottom of the seabed or from something else?

Dr Cook: The argument is that activities prevent fish from successfully spawning—it could be noise or physical disturbance from, say, a trawl going through a spawning aggregation. However, there are all sorts of natural causes, too—seal predation, for example. Seals will be attacking spawning populations, and they will disturb cod. Severe storms will also have an impact. I would have thought that the added disturbance caused by creeling was negligible, but that is an opinion and it is not based on data.

The Convener: Elaine, do you think that tailored, controlled exemptions should be considered as part of this tool, given the impact on fishing businesses that are excluded?

Elaine Whyte: I go back to the fact that, in order to answer that question, we need to be doing neutral, unbiased science without any political influence. We have never had a massive problem in our dealings with the marine directorate; what I am seeing is a marine directorate that is underresourced and that is having issues because, as I have mentioned, it is all, in my opinion, about management by fear of litigation. We are frightened that somebody is going to take us to judicial review or that we are not meeting the conditions of the Fisheries Act 2020. As a result, we are being forced into a situation that is not ideal for anybody.

What we really need to do is, potentially, look at the by-catch in all the fishing methods, but also look at the finfish trials and try to get them re-established. We also need to work with local boats. When I was invited to this meeting, I asked who was going to be at it so that I could bring two fishermen along, because I was very aware that I was going to be just one voice.

I think that that is symptomatic of everything that is happening. Things are happening to fishermen; they are not as involved in the science as they should be. If we can get to that position over the next few years and do this right, it could be very positive when it comes to making decisions.

Rea Cris: I want to respond to Elaine Whyte's point about policy making by fear of litigation by saying that that has happened already. Open Seas

has taken the Scottish Government to court. It won, and it won on appeal, and the Scottish Government is still not adhering to its obligations. I repeat that this SSI has not been assessed against the national marine plan, and that, again, breaches the court order.

I think that what Elaine Whyte talked about has happened, and I am not placing the blame for that on the industry. I place the blame on the Scottish Government, because it needs to adhere to its statutory and policy obligations, and it is not doing so across a whole range of stuff.

The Convener: Do you want to respond to that, Elaine?

Elaine Whyte: Yes, because this is another issue that has come up. We might all be hearing the same thing, but we are all taking different interpretations from it. For example, we have never seen marine planning as a fisheries management tool—I think that that is the position of the Scottish Government. What I, you and other stakeholders understand when we hear "marine planning" are different things, and that is another pressure on fishermen. We engage in marine planning in our area; ours was the only pilot area, and then there were Shetland and Orkney. It has been really difficult, because the main focus of marine planning has been fisheries management by the majority of stakeholders around that table. The Clyde is very much a political issue, and that has been a struggle for us all.

The Convener: You can respond to that, Rea, and then we will move on.

Rea Cris: I just want to come back quickly on that and say that what we need to do is take this back to legislation. Legislation is not up for interpretation—it is not a case of what my interpretation is, what your interpretation is and so on.

Legislation is stated, and the Scottish Government is not meeting its legal obligations. The law was decided by the Scottish Parliament and the UK Parliament, and the Scottish Government is not meeting those obligations. That is not open to interpretation. If we do not like the law, that is another question, about whether we need to change primary legislation.

Elaine Whyte: Which part of the law are you talking about in marine planning and fisheries management?

Rea Cris: Well, there is national marine planning legislation and we have the Fisheries Act 2020. There are objectives that the Scottish Government is not meeting, and we have policy statements. It is not really worth getting into the minutiae of the law—the point that I am making is that law is not open to interpretation. The only ones who can do that are the courts, and, as I said, it has already been proven in court that the Scottish Government is not following the legislation.

The Convener: Okay. I will move on to Professor Heath.

Professor Heath: The question was whether the exemptions should be reinstated, and I would say absolutely yes. The case for the removal of the disturbance exemption is spectacularly weak. The evidence is drawn from small-scale studies elsewhere in the world. Not one shred of evidence has ever been generated in the Clyde that disturbance is sufficient to interrupt or disturb the cod—not one shred. I understand why people would be fearful of reinstating those exemptions, but my opinion is that you can quite safely do so and there will be no adverse consequences.

The Convener: Kenneth, we are going to move on to socioeconomic impacts, but if you want to respond to this discussion, please do so briefly.

Kenneth MacNab: Just briefly, I hear what Robin Cook and Mike Heath have said about disturbance, and I think that it is really sad. We had a member—a creel man—who lost his business through disturbance. He packed it in because of the closure, and now I hear them saying that disturbance is neither here nor there. That is a really sad situation. I know the man personally, and he gave up his business because of the closure.

The Convener: Professor Heath can come in to respond to that.

Professor Heath: I am saying that we should allow creeling in the spawning enclosure area, and that is what Robin said, too.

Kenneth MacNab: That is not what Robin said.

Dr Cook: That is what I am saying.

The Convener: My interpretation is that the two scientists are suggesting that any removal of exemptions relating to noise disturbance and so on was not founded in science that was based on the Clyde. However, that is certainly the argument that the Government pushed strongly the last time that we discussed the measure. That is one of the reasons why we are sitting round this table—it is because of the dispute over the science that was used to inform the Clyde cod box policies.

Kenneth MacNab: The west wind creates more noise than any creel would ever create.

The Convener: We will move on to socioeconomic impacts. Alasdair Allan has questions on that.

Alasdair Allan: We have talked quite a bit about socioeconomic impacts, but I would like your opinion on whether the legislation that we are

looking at reaches some kind of balance between socioeconomic impacts and other issues, such as environmental issues. Is the legislation evolving—that is the phrase that others have used—to cope with changing circumstances? What do people feel about the alternative scenario, which is that the legislation is not passed?

Alastair Hamilton: I am going to sound like Elaine Whyte for a moment here. You have to take a look at the bigger picture. This piece of legislation is for a six-week closure in the Clyde. That is not, on its own, damaging, but when you look at how it lies alongside all the other cumulative effects of closures—we have heard about the five MPAs and the seabed that is required for the navy—the overall cumulative impact of all those restrictions is to push fishing towards commercial unviability.

Elaine Whyte: I looked at the socioeconomic impact work that the Government has done. It said that an island communities impact assessment was not required. However, I work with people from Kintyre and the islands, and, to be honest, the reason why Magnus Barelegs called Kintyre the mainland island was because we all face the same issues. We have depopulation and difficulty getting there, and we want to keep those populations there as much as we can.

12:45

Obviously, Sean McIlwraith has given his opinion, and a few other fishermen wanted to say something. Paul McAllister has two young children aged two and four. He had three boats and he sold one. He was employing 10 people and is now employing seven people. He has started the paperwork to leave for New Zealand with his young family, because the stress of this is becoming too much for him. The point that he made was that Campbeltown Creamery ran a full campaign to save the creamery, with 11 full-time members of staff. He had 10. That is the impact that this measure is having on local communities such as Campbeltown and all around the Clyde. It is really important. He will leave a tight-knit family because of situations like this.

You mentioned Kenny Campbell. It eats at my conscience every night that we could not help him through this debacle. As I said, it is political to some people sitting around the table, but that man gave up.

Andrew Harrison made some points. He was very disappointed about the perception of bycatch—because we are all talking about bycatch. Every single time that he goes out for a trip, he logs what he catches, and it is less than 1 per cent cod. That data is with Marine Scotland, so why are we not using it?

My final point is from Alex Gillies, who, like Andrew Harrison, took part in the CFA trials. He said:

> "Why is the Clyde completely different from every other area? Any science should happen not only in the Clyde but nationally. Also the pressure of monitoring that we are under. We have monitoring boats following our boats when we leave the harbour. It feels like we are doing something illegal when we are just doing what every other legal fisherman does in the country."

It is really easy to forget the impact. I take the phone calls from people, so I hear how stressed out they have been through this situation. People keep saying that they have written to the media or to someone else, but this is about people's lives. They are not all here to be heard, and it is not a game. The socioeconomic impacts are really serious. You can see the figures for the drop in landings—we lost well over £1.5 million. That is not £1.5 million for just one year; that is for every year that this measure is in place, which is a significant amount of money to places like Kintyre and Ayrshire. We need to start thinking about that. We need to be aware of the massive impact that this measure is having. It is about not just the landing figures but the whole industry that is attached to those figures as well.

Esther Brooker: Thank you for sharing your stories—I really sympathise with the views that are coming forward. I emphasise that we need to take a much more ecosystem-based approach to this, and, as Professor Heath mentioned earlier, people are part of the ecosystem. The marine environment is a very complex place. We are looking at one spawn enclosure that supports one stage of a fish's life history. We have already talked about how we are not necessarily taking into account all the rest of the impacts or the rest of the life stages. We need to make policy that is smarter and that can leverage benefits for people. We know that healthy seas and healthy fish populations support sustainable businesses, and we want to see legislation done in a smarter way in conjunction with other aspects. People have mentioned things such as marine protected areas. We know about the UK Fisheries Act 2020, and we have fisheries management plans. There are a lot of different pieces on the board, and they all need to work together in a way that will enhance the opportunities for sustainable businesses and communities.

Megan Hamill: Following on from Esther Brooker's points, I echo what she said about the need to take an ecosystem-based approach. Marine protected areas have been mentioned several times now, so it is a good time to mention the no-take zone and the south Arran MPA. These areas both show that a zoning approach supports habitats as well as commercially important species and increases opportunities for low-impact fishing,

such as creels and diving. We have seen a real increase in scallops and other commercially important species in the areas that support these businesses.

COAST is really concerned about the drop in fishing levels in the Clyde. Over 20 years, we have seen an 80 per cent reduction in trawl and dredge vessels and around a 70 per cent reduction in static fishing vessels. There used to be productive fishing communities on Arran, but that is no longer the case, because of the unchecked trawling and dredging, which have completely decimated the stocks that we are talking about today. We need effective measures to address that. The current measures have been in place since the year that I was born and have done nothing to address the decline in the stock. We need to address bycatch and, as Esther Brooker was saying, we need a wider ecosystem-based approach that looks at the habitat and the whole lifecycle of the cod.

Kenneth MacNab: I am a bit puzzled about where the idea of a decline in stocks has come from. When I went into fishing, in 1969, the nephrops fishery was a summer fishery, but it is now an all-year-round fishery. There are 10 times more prawns, as we call them, in the Clyde now than when I went into fishing, so there has been a massive increase in the stock.

Campaign groups are saying on social media that there are no herring in the Clyde—what a load of nonsense. We do not fish for herring in the Clyde because it is not economically viable. For a start, they have to be transported to Peterhead, which costs £1,500 for every lorry that goes up the road. The nephrops fishery is profitable and the trawlers have done consistently well there for the past six years.

We were the last boats to partake in the herring fishery. As I explained, we left it because it was not economically viable, and it has not been so for the last six years, but that does not mean that there are no herring in the Clyde. The quota for the Clyde is 530 tonnes, and the Northern Irish Fish Producers Organisation has two thirds of that, because of its track record. A month before Christmas, two boats came up the Clyde from Northern Ireland and fished 340 tonnes of herring in one night. Saying that stocks are depleted in different areas of the Clyde is complete and utter nonsense. The boats are working in a nephrops fishery because it is economically viable and sustainable.

The Convener: Emma Harper has a question for both Kenneth MacNab and Sean McIlwraith.

Emma Harper: It is a question about socioeconomics. What do you do during the six-week closure?

Kenneth MacNab: It is not six weeks; it is 11 weeks.

Emma Harper: Sorry—my mistake.

Kenneth MacNab: There are only two people in the room who are not getting paid today: me and Sean McIlwraith. Everybody else in the room is getting a salary. [*Interruption*.] You will get expenses, Robin—do not worry. We are here voluntarily. Everyone in the room would be jumping up and down if their boss told them that they were taking 11 weeks of their salary away again this year, but we are going into the fifth year of that happening. Would you take that? That is what we have to take.

Everybody says about mobile gear, “Oh, you can just go somewhere else,” but, if we do that, we will annoy someone else, because we will take their fishery. We would move the effort and double it somewhere else. Working around an 11-week closure is nearly impossible.

Sean McIlwraith: We are the same, although we have static gear. Before it shut, we couldnae trawl the south coast of Arran and the east coast. Around 2014, there was a great abundance of scallops. In oor last towing there, we caught five or six baskets of scallops. Where had they come from? They were always there.

Now, we are having to move our static gear and our scallop boats outside the area, up towards Girvan, which is causing conflict with other creelers and scallop boats, because we are all pushed into one area. We are also loading wir boat up, because, up until last week, we didnae know that this was coming into play again. We have to move all our creels and wait for good weather to dae that—to load wir boat up—because me and my crew can only take 40 creels comfortably, to be on the safe side. Aye, it is stressful.

Alex Watson Crook: I appreciate that we are talking here about the negative impacts on the industry, especially where those impacts are not justified by the science. That is just insufficient. However, more broadly, we need to think about the potential positive impacts of bringing back the biodiversity through the recovery of whitefish, cod and other species in the area.

I am not playing politics. I have been in Prestwick for nearly three decades now, and I love the place. When I first arrived there, as a marine compliance officer, it was thriving in relation to tourism, accommodation and festivals, particularly in the recreational sea angling environment. That is all gone now, and there is nothing else there.

There are stakeholders who are considered not to be part of this process. If we cannot get quota for cod, or if we do not know whether the measures will work, why bother? However, we can surely all

agree on the need for diversification of the fleet and the need to bring resilience into the fishing industry and the Clyde ecosystem as a whole through the recovery of whitefish stocks more generally.

Megan Hamill: I am here voluntarily, because I am a young person who is concerned about the future of the Clyde. I am not being paid to be here today.

In 10 years' time, I want to see a Clyde that is flourishing. Imagine if we had the cod stock in a state where there was a fishery again. Alex Watson Crook talked about diversification, and using an ecosystem-based approach for the whole Clyde would help us to achieve that.

On the points that have been made about the south Arran MPA, there needs to be consideration of what happens to the cod when they are not in the spawning area and disperse across the Clyde. Research from the south Arran MPA by the University of Glasgow into the habitat requirements for juvenile cod has shown that they prefer more complex seabed habitats. We know that bottom trawling and dredging decrease the complexity of seabed habitats. That was recognised in the 2020 marine assessment as being the most widespread physical impact on Scotland's seabed habitats. Taking an ecosystem-based approach to fisheries management would help to support cod throughout those different life stages.

Elaine Whyte: We are talking about cod, and the issues will be similar in different areas and different countries. Lots of non-domestic fleets are fishing English waters just south of the Clyde. They are using very large vessels and they are not monitored in any way at all. We need to consider such points.

Going back to the biomass point, we are talking about having a thriving Clyde, but I do not know how many fishermen I have spoken to who have said that there are more fish in the Clyde now than they have seen in so long, potentially because there are hardly any boats left. Recent reports are that sprats have increased, for example, as have herring. The fish biomass is therefore increasing, but the fish are smaller, and different types of stock are coming in, including bluefin tuna. There are different opportunities and there is a different ecosystem. It is not static, and people are also part of that ecosystem—we need to remember that. This is a national issue that we need to get our heads around.

We were part of the no-take zone when it first started, and we have not had very good communication about it in the past few years. That has become a bit of a regret of ours, because we have not been involved in it as we would have wanted to be. Our fishermen have weekend bans and conservation measures beyond those anywhere else in Scotland, yet we are still here, talking about this, when no one else is. There is a point at which you are putting stress on communities and fishing reps and associations. This is the culture that you are impacting. Alex Watson Crook said that she came to Prestwick when it was thriving. I have been in this job for 12 years—I have been through MPA campaigns, highly protected marine area campaigns, regulating order campaigns and various others things coming at us—and the one thing that I will say is that the fishermen have not been involved as they should have been.

I am really glad that Robin and Mike are here, because I hope that we can start talking together about these issues a bit better and that we can work together on the science, because communication is important. We need to get away from the politicisation, because these are people's lives.

13:00

Dr Cook: A couple of people have mentioned the problem whereby the spawning closure simply diverts effort elsewhere, which is a particularly important issue in evaluating it. Closed areas generally do not work very well, because they displace vessels elsewhere and the mortality that there would have been in the spawning area is simply experienced elsewhere. In relation to this particular measure, we have to ask the question: is the cost that we are imposing on the fishery by closing an area worth the benefit that we are likely to get from that closed area? It is questionable, frankly.

The Convener: Esther Brooker, very briefly.

Esther Brooker: That echoes my earlier point about needing a smarter and more cohesive policy framework.

The Convener: We have come to the end of our session. It would appear that there is very little support for the SSI as it stands at the moment. We need something different, but everybody is coming at it from a slightly different angle. In my view, it is unfortunate that we are discussing the issue again. However, your evidence has been hugely helpful, and we will raise those issues with the cabinet secretary before the committee takes a decision on the SSI. I thank you for your contributions, time and commitment today.

I ask you to remain seated so that we can deal very briefly with the last agenda item.

Retained EU Law (Revocation and Reform) Act 2023 (Agricultural Products) (Consequential Amendment) (Scotland) Regulations 2025 (SSI 2025/407)

13:01

The Convener: The last item on our agenda is consideration of a negative instrument: the Retained EU Law (Revocation and Reform) Act 2023 (Agricultural Products) (Consequential Amendment) (Scotland) Regulations 2025 (SSI 2025/407). Do members have any comments to make on the instrument?

As no members have any comments to make on the instrument, that concludes our proceedings in public.

13:01

Meeting continued in private until 13:26.

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