



HOUSE OF COMMONS

Environmental Audit Committee

Oral evidence: Climate change and biodiversity: one-off session, HC 2563

Tuesday 23 July 2019

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Watch the meeting

Members present: Mary Creagh (Chair); Ruth Jones; Jeremy Lefroy; Kerry McCarthy, Anna McMorrin; Dr Matthew Offord; Alex Sobel; Derek Thomas.

Dr Thérèse Coffey MP, Parliamentary Under Secretary of State, Department for Environment, Food and Rural Affairs, was in attendance.

Questions 1 - 51

Witnesses

I: Rt Hon Lord Deben, Chairman, Committee on Climate Change, and Tony Juniper CBE, Chair, Natural England.

Examination of witnesses

Witnesses: Rt Hon Lord Deben and Tony Juniper CBE.

Q1 **Chair:** I call the Committee to order and welcome our two guests this morning. Can I ask you to introduce yourselves, starting on my left?

Lord Deben: I am Lord Deben. I am the chairman of the Committee on Climate Change and I am an independent chairman appointed by almost every political party on earth.

Tony Juniper: Good morning. My name is Tony Juniper and I am the chair of Natural England.

Q2 **Chair:** You are both very welcome. Obviously, we are the main news event in Parliament today until 11.00, when we will cease to be the main news event. We are going to try to get through our questions in a fairly brisk way. Can I start with you, Lord Deben? You recently described the Government's approach to climate change as ramshackle and likened their approach to "Dad's Army". Can you tell us what you really think? No. Can you tell us what the Government need to do to embed net zero across all areas of policy and all areas of operation?

Lord Deben: The reference was not to climate change in general but to adaptation. It seems to me that we have not spent enough time reminding people about adaptation and today is a good day to take that point of view. The number of old people's homes, for example, and the number of older people's houses that are adapted to weather like this is very limited. We have done practically nothing to ensure that new houses have proper ventilation, but we have been entirely unwilling to take seriously the continuing threat of drought and floods, very often in the same year.

I come from the east of England. We are now a semi-arid area. The effect of that in terms of water extraction is that most of the agriculture on the eastern side of the A12 is only there because of irrigation. It is very successful. We are not building what we should be building, an ability to stop the fresh water going into the sea. At the moment, it just goes into the sea and, therefore, we lose it. With coastal erosion we are taking away some of the areas where that fresh water can be found.

The ramshackle thing was that we do not have a proper policy. This is a bigger criticism of the Government because the policy for adaptation is not the Committee on Climate Change's policy, it is the Government's own policy. It is not meeting its own policy. That is why I called it ramshackle: because it seemed to me that was the nearest thing I could say.

Q3 **Chair:** Can I draw you back to the Government, then? This Committee audits Government performance in a variety of areas. We audited the



HOUSE OF COMMONS

Ministry of Justice, which had not got BREEAM certification of excellence for its new prisons and buildings and which was increasing—it was a couple of years ago now—its airline miles. Its carbon from air journeys had increased. We audited the Department for Transport, which has no cumulative assessment of its road-building schemes. What policies need to happen in different Departments of Government to achieve net zero?

Lord Deben: The clue to the answer to that is your own expression of it, which is that it is every Department. Government do not look at it like that. Government think of climate change as something BEIS or DEFRA deal with in their ways, and it is very difficult to get Departments to understand their own responsibility. That is why next year we will be doing our report on the Government's success or failure, departmental policy by departmental policy. We will be able to say, "This Department has failed to do this. This Department has failed to do that". That is the first thing. There is no joined-up system and there is no real assessment.

The difference between Secretaries of State when you talk to them is remarkable. The Secretary of State for Education, for example, Damian Hinds, has it absolutely there. He knows exactly what he is trying to do. He has a proper policy for education. It may not have gone far enough. They have a lot to do but he does know where it is. You do not get the same feeling, for example, if you go to the Department for Transport because there are very real differences that need to be done.

You mentioned a particular one. One of the issues for me is to rid ourselves of the institutional hurdles over which people have to climb. I have proposed that what used to be called the Better Regulation Committee should now be told to go through all those things that at the moment are making it more difficult for people to combat climate change, more difficult for people to adapt.

Q4 **Chair:** Can you give us an example?

Lord Deben: I will give you a similar example. If I am a housing association and I spend a bit more money in making the houses I build as near as can be to a passive house, I cannot—

Q5 **Chair:** Can you explain "passive"? What does "passive" mean?

Lord Deben: It is a house in which you have almost no demand for energy in heating and ventilation. I therefore do not pay a lot of money for my energy. But the housing association that has built that flat or house cannot have a differential rate, so it cannot share in the saving that its customer makes. That means, of course, that any extra cost it has is something that is spread over the whole of its budget.

It seems to me very simple that we should change the rules to show that it would be possible to do that. I met a woman who said to me, "I used to save £30 a month, every month, in order to pay my winter bill. This year I have moved into this house and this year when the bill came it was £15". She looked at me and she said, "I had £300 for myself. I have



HOUSE OF COMMONS

never had £300 for myself". It was that that challenged me. If she had had £150 for herself, we could have built more of them.

It seems to me that there are a host of those things that you find—ridiculous issues. Why is it that Ofgem does not find it possible to insist, for example, on a ring main to take the electricity from offshore wind and bring it all into one place, instead of building transformers in tiny villages all the way round the energy coast? I declare an interest because I come from Suffolk, but I am not affected in any of those villages. It is a question you have to ask and put right.

Q6 Chair: You say the Government have just 18 months to rescue UK credibility. Obviously, we have—we hope—COP26 coming next year. What do you think has gone wrong? How did we get to this stage? What has happened?

Lord Deben: We have done some of the most remarkable and underestimated things. For example, George Osborne's willingness to give £6.7 billion to move to offshore wind, in particular, but also to create the market for renewables, was a revolutionary decision and has been hugely underestimated. Of course, the effect of that is that it looked as if we were doing well because everything was going well as far as the removal of carbon from our generation was concerned. People forgot that the other things were not doing as well. As you get to the end of your savings in that way all these other things happen.

Secondly, the Government have been entirely wrong in the way that they have thought about the environment anyway. Tony Juniper is now running an organisation that cannot do its job. I said this to somebody outside. It cannot do its job because it does not have the means even properly to look after the Sites of Special Scientific Interest, leave alone anything else that may arise. You look at the Environment Agency; again, when I was the Secretary of State, I invented the Environment Agency and I made it independent. I told the chairman that he was to criticise me because that was the way I used to fight the battles in the Cabinet. I could say, "The independent body said this". Successive Ministers of all Governments have made it more and more difficult, by drawing this organisation in, for it to be critical. The first thing Governments have to learn is that they need to have criticism from outside and they need on these issues to be willing to put up with it and answer those questions.

Government has become unwilling to listen to independents outside except when it is statutorily arranged, like the Committee on Climate Change. We are very fortunate we wrote the statute in a way that makes it quite difficult not to listen.

Q7 Chair: You have criticised the Government for not being on target to meet their 80% emissions reductions. What do you think about the net zero target? You have done this big report. You say it is possible. What do you think are going to be the biggest challenges?



HOUSE OF COMMONS

Lord Deben: We have to move first not to make it worse. We need to move very rapidly to insist that every new house that is built is fit for purpose and there are no more crap houses built.

Q8 **Chair:** Is the Chancellor's target for off-grid homes by 2025—and they are only off-grid for heating, not for cooking—enough?

Lord Deben: No, it is not enough. First, it is too late and, secondly, we still do not know whether it is done under the old system, which was that it begins in 2025 because of the way we deal with planning permission, or whether it is going to actually be 2025.

My own view is that we can change and ought to change the building regulations. We have a particular opportunity. I understand that in September the Hastoe Housing Association will produce its proposed simple version of the passive house, which could be applied there relatively easily. If that turns out to be as good as I think it will be, it seems to me this is the opportunity for the Government to receive that, accept that and say from 2021 every house will be built to that, unless a builder can show that they have moved so far on their building that they cannot change to it. That is what we need. Only when that is the basis will people be trained to do it, will the cost come down and will the land price reflect the slight extra costs, but also will the bits and pieces be manufactured in a proper mass way, not as niche items as they are now. That would be my first thing.

Secondly, we have to bring forward the date on which we become all electric as far as transport is concerned; 2040 is too late. We cannot meet even the 80% unless we bring it forward. Ideally, we should be aiming at 2030 but at the very latest it must be 2035.

Then we do have to make sure that the Environment Act and the Agriculture Act that are coming into Parliament are both designed for us to change the way in which agriculture works in this country, both to plant the trees that we need and, more importantly, to return the soil to its fertility, which will allow it to sequester the amount of carbon that we need. Net zero means what it says. It means we will have some emissions, but we will also be taking in carbon, which will compensate for those extra emissions. That is why we do it that way and the Government have to prepare for that.

Chair: I have a short supplementary from Kerry.

Q9 **Kerry McCarthy:** With the launch of the Committee on Climate Change report, you started off by saying that your least favourite environmentalists were those who wanted people to eat disgusting food. You said people who want us to live in cold houses and then you said people who want us to eat disgusting food. Then you sort of returned to that theme a little bit later when you were talking about meat consumption.

You say with agriculture you are talking about the positive side of



changing land use, which is planting more trees and better carbon sequestration from soil. What the Committee on Climate Change has been very weak on is looking at the damaging side of land use, and particularly the livestock sector. The recommendation that people should reduce their red meat consumption by 20%, I think, by switching to pigs, poultry and plant based—that is very much an aside—is weak, and a lot weaker than the IPCC and many other people have said. As I understand it, it is because you think you would not be able to sway the public to eat disgusting food. Perhaps you could say a bit more about that.

Lord Deben: No, it is not that.

Kerry McCarthy: You did say that.

Lord Deben: No, I did not say that—

Kerry McCarthy: You did.

Lord Deben: —and I will tell you what I did say. I did not say “disgusting food”. I made a joke, which I do make, and I do think we live in a funny society where you cannot make jokes without—that is one of the wicked things about our society. I will go on making jokes as long as I am doing this job.

Let me tell you exactly what I said. What I said was this report, for it to be credible to people so that we would get it through, had to be based upon two assumptions. One is that we did not take into account any technology that we did not have so that we asked ourselves, “Could we do this with the technologies that we have?” The second thing I said was we were not going to rely upon changes in public activities, the way that people lived, which were of such a radical kind that the public would not believe that that would happen.

What we said was that if you take the change in diet now, it was not unreasonable to put into our calculations that we would eat 20% less meat but that we probably eat better meat, and that meant various things. One of it meant a change to white meats rather than red meat, but it also meant that when we were eating red meat we would expect to eat meat that was grass fed—I declare an interest, as I have six cows—and would not have feedlots. If we do not have some meat eating—this is why I do not think that vegetarianism is the answer—we cannot have mixed farming. If you want to make the soil as it should be, you need mixed farming. I am only telling the truth.

- Q10 **Kerry McCarthy:** But a 20% reduction—and you are only talking about switching from red meat to pigs and poultry mostly and there is a whole issue about intensive farming and the impact of that—is not asking very much at all. You are basically saying people eat a bit more chicken, a bit more bacon, a bit less beef. That is not going to have a significant impact on emissions.



HOUSE OF COMMONS

Lord Deben: Ms McCarthy, I want to come back. That was not our job. We were asked a question. It was—

Kerry McCarthy: You were asked how we could get to net zero.

Lord Deben: Let me say, and I will repeat it: we were asked a specific question. We have signed up to the agreement in Paris. We want you to tell us: can we get to net zero? How much will it cost? When can we get to it? Our Committee—which contains vegetarians and vegans, so let us be clear about it—had to offer something to the Government that would stand up in the minds of the vast majority of people. That is what we had to do.

If, in fact, we can have new technologies, which means we move faster, if people eat less meat than we have put on our list, if we find that we can, for example, change people's habits about transport very much more, then we will get there faster. But I would not have been able to get the very significant consensus of people backing this with the quickest move of a report into law statute, which cannot be changed, if I had not produced something that was not opposed by anybody on the basis that I was in cloud cuckoo land because you are not going to have an 80% swing from meat to plant based. You have to behave in a way that means that you win the battle. That is what I am there for. I am there to win a battle. I want to be the person who made sure that this country gets to net zero, and you do that by presenting something that does not just appeal to Ms McCarthy but appeals to the range of people who then believe it can be done.

Q11 **Kerry McCarthy:** Perhaps you should look at what the IPCC and others are recommending.

Lord Deben: With great respect, it does not—

Kerry McCarthy: I would like to see your evidence base for saying that you cannot go beyond 20% and it is not even a 20% shift because I just do not think that is borne out by the facts or by other reports.

Chair: We will move on, on that happy note.

Q12 **Ruth Jones:** I am going to come closer to home, if that is okay. Our Committee recently launched an inquiry looking at achieving net zero emissions on the wider Government estate. The question to both of you is: what must the Government prioritise in order to achieve this?

Tony Juniper: On the application of the net zero target across the Government estate, quite a lot of this action is well documented by the work of the Committee on Climate Change in terms of the electricity and transport and heating side of life in relation to buildings and operations. Perhaps the piece that has been less talked about so far, which is very much more the work of Natural England, is the extent to which land use choices are affecting the net zero trajectory, recognising that even if we do phase out all of the possible fuel consumption in the country—as Lord



HOUSE OF COMMONS

Deben just pointed out—there will be residual emissions. The net part of that will be in relation to carbon being captured in ecosystems.

In terms of ecosystems in this country, there are two big terrestrial stores of carbon. One is peatlands and the other is woodlands and both of those can be managed in different ways to maximise the carbon benefits. Then there is a series of coastal ecosystems that are also very rich in terms of the carbon that they store—seagrass beds and salt marshes, for example. The Government are an influencer and an owner of some of those assets and there is an opportunity right there to be reducing the emissions of carbon into the atmosphere. The big prize there would be the restoration of our peatlands across the country. Our peatlands are in a terrible state and they are emitting many millions of tons of carbon into the air as a result of their progressive degradation.

The very good news is that if we did target the restoration of peatlands—and there is an emerging Government strategy on peatlands—we would not only gain a carbon benefit but also a range of other co-benefits with that, which would be hugely valuable. One would be in relation to water quality, which would provide a commercial benefit to water companies providing public supply. There would be a flood risk reduction element in some parts of the country thereby aiding with the adaptation dimension. There would be a biodiversity benefit recognising that our peatlands are home to some of our most globally important communities of upland birds, for example.

The conservation of some of these high-carbon ecosystems and their restoration is not only a very good thing from the point of view of the net zero target but also potentially a very good thing from the point of view of biodiversity and water security.

In terms of which bits of the Government have control of land, obviously the Ministry of Defence has very large areas of land, which it uses for training purposes. I do not know of a carbon strategy yet for those areas of land, but it might be that one could be envisaged. I was surprised the other day to hear also that the Ministry of Justice is the second largest landowner in the country.

Q13 Chair: Which is why we audited it and found that their SSSIs were not in good or favourable condition.

Tony Juniper: One would wonder to what extent there is a very positive potential synergy there in terms of maximising the biodiversity and carbon interest of Ministry of Justice land around prisons in order to not only meet environmental objectives but also in terms of prisoner rehabilitation, the extent to which we know that exposure to good quality natural areas is very good for people's psychological wellbeing. It could be that there is something to be explored in that space, too.

The bigger dimension of this probably is beyond the land that is controlled by the Government themselves and where the Government can



influence land use. This is where then Natural England has a lot of interest in emerging policy around the new environmental land management system, which is the new agricultural policy, among other things, that will replace the common agricultural policy. As Lord Deben was saying, one of the very big dimensions of net zero in terms of land is the extent to which we can store carbon in agricultural soils as well as peatland soils and in woodlands. That is an area of policy that could be advanced through different management options, one of which was just touched on a moment ago in terms of a return to more mixed farming, where livestock is more part of the agricultural landscape in a way where animals are being deliberately used in rotations to improve soil fertility by increasing the organic matter in the soil.

One of the consequences of many decades of intensive farming has been a progressive reduction in the once-living component in the soil. This is plant remains; the biodiversity in the soil has gone down, and that once had a very high carbon value to it. It is now in the atmosphere and we have masked the effects of that by using more and more fertilisers, which in turn have a very big carbon footprint of their own through their manufacture.

Lord Deben: Your five a day is worth less today than it would have been 50 years ago because it does not contain what those vegetables would have contained 50 years ago in terms of trace elements. I would love you to extend what you say about the Government to the Government's procurement. It is not just what the Government have, so to speak, it is the way they procure. In that thing that I was involved in in a quite separate life, we discovered that 39%, I think, of the top 100 companies that the Government spend money with did not have a proper modern slavery statement. What else they had in terms of environment and the rest of it was probably non-existent. Therefore, what are the Government doing on insisting that when they spend money the people on whom they spend money are also meeting their responsibilities?

Q14 **Ruth Jones:** I agree we should extend it, but my question specifically is about the bite-sized, smaller chunks of the Government estate. What priority, Lord Deben, do you think that the Government should make with their own estate to achieve this net zero?

Lord Deben: Their estate is very complex and there are many parts of their estate they ought to cover with a proper environmental programme in which the climate change element would be a significant bid. That is true of everything from motorways to the patches of land that, for example, the Ministry of Justice has. For me, the real issue—this is why I use the words “ramshackle” and “Dad’s Army”—is there is no national concept that everybody in Government do this. Because if Government do not do it why should everybody else? Therefore, for me, the key thing is to make it a commonality of all Government Departments that they have a proper climate change/environment policy for all the land they own.



HOUSE OF COMMONS

Q15 Chair: You mentioned Damian Hinds as an example of a Secretary of State who was on board with this. If we were to achieve the 20% meat reduction, that would be one day a week meat free in schools. You were talking about bringing things in after 2030 for net zero, but if we did it earlier then we save carbon sooner. Is that an idea that the Department for Education should be looking at?

Lord Deben: I certainly think they should be looking at the balance for children, because if you meet some children they eat lots of vegetables and choose to eat vegetables because that is how they have been brought up. I am afraid that a lot of children are not brought up like that and the schools have to play their part in it.

I agree with the point about education—I am perfectly happy with that and would like to see it—but there are a whole lot of other things, too. For example, in many of the areas that we are talking about there are big shortages of skills, skills to do the things that we want. We talk about peat restoration. We do not have the skillsets to do all the work we need to do there. We are not training people. If you look at the farmers of this country we have a very high proportion who do not have any training. The next generation have to be properly trained. I am very unhappy at the moment about the way the land-based colleges are teaching for a world in which climate change is a serious threat. That is where I would be putting my immediate pressure in the Department for Education because it takes longer to get there because your training programme is so important. But I agree, in schools that would be a very sensible way forward.

Q16 Dr Matthew Offord: Mr Juniper, the UK is signatory to the UN Convention on Biological Diversity. What has been achieved, particularly by your organisation, in achieving the Aichi biodiversity targets? Of the 20, the UK is only due to achieve five of those.

Tony Juniper: Of the two main conventions that were agreed at the Rio de Janeiro summit in 1992 it is fair to say that the climate change agenda, the climate change treaty, has had the lion's share of the attention. Equally important, in my estimation, was the agreement of a treaty to conserve the earth's rapidly dwindling biological diversity. We signed up to that treaty and subsequent sets of targets, including the Aichi ones you mentioned, which were agreed in 2010.

As a result of there being less emphasis on that set of issues, we can see relatively less effort has gone in and, as a result, we have quite a troubling situation in the extent to which we can say that we are a global leader on that subject, as we are on climate change. I would like us to be a leader on the recovery of biodiversity, as we have been in relation to climate change.

Anyone looking at the data will see that the 21st century is going to be characterised by the success or not of us wrestling with these huge environmental challenges that are now upon our doorstep. On climate



HOUSE OF COMMONS

change, we have real momentum in the UK. On biodiversity we do not yet. This is the core job of Natural England and at the moment my organisation does not feel fully equipped to be able to discharge this duty. This is both in relation to some of the statutory duties we have, which are around conserving the very core units of biodiversity conservation, the so-called Sites of Special Scientific Interest, and a subset of those, the real jewels in the crown, the national nature reserves. We do not have sufficient resources to do that job properly.

I say that as a prelude to what for me is an exciting set of opportunities in relation to meeting the Government's 25-Year Environment Plan objectives and, related to that, the goal of net zero in relation to land use. If Natural England and the wider machinery of government are going to step up to this we have to now invest in a larger scale, more integrated, more ambitious programme for biodiversity conservation in this country. That is one of the big choices that we face at the moment. Are we going to do that or not?

If we carry on as we are, I fear that biodiversity will continue to decline in this country and we know why: as a result of the fragmentation of habitats, the effects of diffuse pollution, the continuing pressure from building and infrastructure development, the continuing impacts of agriculture and now, on top of that, the multiplier effect of climate change. If we are going to deal with all of those pressures on this country's biological diversity, we have to invest in the implementation of the Government's 25-Year Environment Plan, including the specialists and the ecologists, our front line who work with local planning authorities, who work with farmers, who work with developers, to be able to make the right kinds of choices. At the moment we do not have the capacity to do that properly.

Lord Deben: There is no division between us. If Natural England cannot do that then we cannot meet net zero, in my view.

Q17 **Dr Matthew Offord:** I hesitate to interrupt you because what you said was quite interesting, but we go on to SSSIs and we go on to biodiversity. I want to bring you back particularly with the Aichi targets. What action is being taken to prioritise those targets?

Tony Juniper: That is a matter for DEFRA. This is not something that appears in our overview of our work. This is more of a Government-level thing rather than the Natural England level. I do not have daily sight of the Aichi targets, but if we are going to pursue that kind of very strategic agenda, which is the kind of targets that are in there, avoiding extinctions, increasing protected area coverage and so on, this is a much bigger job than Natural England is currently able to do.

Q18 **Dr Matthew Offord:** That is helpful, thank you for that. You also mention SSSI sites. There are just over 4,000 SSSI sites and as of last year about 47% of those—just under 2,000—have not been inspected for the last six years. Have they now been assessed and what condition are



they in?

Tony Juniper: No, and they cannot be assessed because we do not have the personnel to assess them and we do not, therefore, have an overview of the state of those sites across the country. This is enormously troubling to me as a long-serving conservationist recognising that these sites were laid out as a result of legislation first introduced in 1949 to be the backbone of this country's conservation effort. Everything else that we do here in terms of big-scale conservation, implementing European rules on birds and on habitats and what we do with our national nature reserves, the Sites of Special Scientific Interest are the core of that effort.

The fact that we do not know what is going on with them is a very troubling situation that we have reached. At the same time, we must recognise that the statutory duty we have to look after those is in tension with what are very good and exciting new policies that we would like to rise to at Natural England, such as the new farming policy, the new tool of net gain and, most excitingly from my point of view, the idea of a nature recovery network across the country, so that we can begin laying the foundations and can bring back home the next set of targets agreed under the Convention on Biological Diversity—which hopefully will be next October in China—and have in place the foundations of an action plan to deliver them so that in 2030 we do not sit here again and lament the fact that we failed to meet the targets again.

We know what we are not doing, and we can do it if we wish. It is a question of whether we are going to invest in that job and put in the resources needed to get the returns for society that we could have in the future. But the longer we leave this the more our environment will decline.

Q19 **Dr Matthew Offord:** Just to clarify, can you tell me who is responsible for SSSIs? Is it Natural England or is it DEFRA? Secondly, I mentioned a figure of 47% that had not been reviewed in the last six years. To your knowledge, do you know if that figure has increased or decreased?

Tony Juniper: I do not know whether the figures increased or decreased, but I do not expect that we will have increased the level of monitoring.

Q20 **Chair:** Would you write to us and give us some figures, please?

Tony Juniper: We will write to you with further information on that to give you an update of where we are.

Chair: And of the ones that have been inspected, what condition they are in.

Tony Juniper: Yes, we will do that.

Q21 **Dr Matthew Offord:** You also mentioned the Government's 25-year plan and biodiversity gain. How do you feel about the net gain for new



developments? How will that work? There is criticism, and we have had evidence to substantiate this, that in some ways it will be a pay for pollution scheme in many respects because it has been said—particularly by the lady from the CIWW—that in some ways you cannot replace a lack of clean air with clean water because one does not compute with the other.

Tony Juniper: Some people see it as the polluters being able to pay to pollute. Another way of looking at it is to see this as implementation of the polluter pays principle because developments that hitherto will have had an environmental impact that was not being compensated if this new rule comes through will be required to pay to achieve an environmental benefit bigger than the damage that has been done, either close to the development or somewhere further afield depending on the practical constraints.

The idea will be to require developers to invest in the recovery of the natural environment in ways that are rules based and which are very specifically measured. At the moment, you have a fairly ad hoc, piecemeal approach. We hope that the net gain approach by being very structured and very clear about the rules will ensure that if you are going to build a housing development you will finish up with a better environment than the one you started with.

The devil is in the detail in terms of what you are measuring to start with, what you are measuring in terms of the net gain, and how you manage that net gain to make sure it is there long into the future and is not the next place that somebody builds on. Those are the rules that we have been working through and working with colleagues in DEFRA to try to make this as good as possible.

Certainly, from the perspective of the broader picture, I do not think anybody would say that we are in a position to stop all future development in England. That simply is not going to happen. The question is how we are going to make that new development as sustainable and as beneficial as we possibly can. The net gain route is one tool that we have for doing that.

Dr Matthew Offord: Just to clarify, Stephanie Wray from the CIEEM—

Tony Juniper: Sorry, just one other point on that. In relation to net gain there would be places where we would say development should not occur, and the Sites of Special Scientific Interest would be one very high bar. Then certain kinds of important irreplaceable ecosystems, like ancient woodland, lowland raised bogs and limestone pavements, we do not build on those.

Q22 **Chair:** I have just gone back into the figures and only 39% of SSSIs are in a favourable condition. If you have only inspected half of them, that would suggest that about 20% of the SSSIs are in good or favourable condition. Half we do not know about but there are 3% or 4% in



HOUSE OF COMMONS

unfavourable conditions. What are you doing to take action? Are they not the highest risk areas?

Tony Juniper: It would depend on the circumstances in terms of what that unfavourable position is arising from. For example, if there is nitrogen deposition coming from local roads or from agriculture that is very difficult to fix on the Site of Special Scientific Interest itself. We, as Natural England, may have quite limited ability to influence some of those diffused pollution sources. If, for example, it is a question of a site being grazed at the wrong time of year or in the wrong way, we might be able to fix that by having some further conversations with the landowner or through being able to encourage some different management practices. The situation is always highly specific. This is a very important point to make in terms of the role that Natural England can play in helping environmental recovery in this country.

A big part of what we can do is offer expertise on the ground where decisions are being made by farmers, by developers, by local authorities, and being able to work with those people to get the very best possible outcomes for the natural environment.

Our front line is now spread extremely thin and many of our stakeholders complain to me about not being able to get through on the phone, not being able to reach people. One of the reasons for that is because we do not have the people there any longer to be able to take those enquiries. But when it comes to questions like that, this is about having the experts locally available who know those sites, who know the people very often, who manage those sites, and being able to work with them to get a good outcome. The more we erode that front line of experts and people who can have those relationships the less we are going to be able to be in a position to meet those kinds of targets of looking at all of our SSSIs and making sure they are in good shape.

Q23 **Chair:** If you cannot do the job that you are meant to do at the moment, why are you excited about nature recovery networks, which is more?

Tony Juniper: It is a very good idea, it is a good ambition, and now we have to make—

Q24 **Chair:** Isn't it only a good idea if it has pounds attached to it?

Tony Juniper: Exactly. We have to make the case for investing in it. That is why I am very confident that this argument can be very positively received right across Government because this is about investing in a brighter, better future for the country by securing all the benefits we get from a very healthy natural environment in terms of public wellbeing, food and water security, climate change adaptation and carbon capture. All of these things are there for the taking. They all have huge value attached to them should we invest in getting them in the first place.

The Sites of Special Scientific Interest are crucial in relation to that idea for a nature recovery network because they are part of the building



HOUSE OF COMMONS

blocks for a much bigger vision for nature's recovery in this country. I see them as lifeboats, lifeboats that have the survivors of nature still hanging on and we now need to bring them ashore by reconnecting them, building that nature recovery network across the country, and we can do that if we have the resources.

Q25 Chair: The lifeboats where we do not know what condition they are in or whether they have been painted or whether the life jackets are on board, but we will move on from the—

Tony Juniper: We start from where we are at.

Chair: Can I also welcome the Minister for Natural Environment, Thérèse Coffey, who is an ex-officio member of this Committee, to our proceedings today? We are going to move on to a question from Derek.

Q26 Derek Thomas: I want to touch briefly on the new plan for the ELMS but also the nature recovery network. If I could shout out for Cornwall, you have talked very much about your role, but the example or the current practice in Cornwall is certainly Natural England but you also have the RSPB, National Trust, NFU, Wildlife Trust, the Environment Agency and a whole load of others that are all working together in a brilliant way to achieve some great work. My constituency probably has as many designations as any on the planet. It would be good to hear a bit about how you see that future work and that it is not just the job of Natural England to save the planet.

Can I move on, then, on that very basis? I understand you have a role with the countryside stewardship scheme, which is the current scheme under the European common agricultural policy. The ELMS, the Environmental Land Management Scheme, is obviously to replace that should Brexit ever happen. What role does Natural England have with countryside stewardship and do you see it as a similar role with the ELMS? Is there a role for a new regulator? Is there a need for a new regulator to make sure the ELMS delivers a public good for the public money that is intended?

Tony Juniper: In relation to our current role regarding countryside stewardship, to put it simply, we are working with the farming community to come up with schemes that meet the criteria for the wildlife objectives in farmed landscapes, and then the farmers are working with the rural payments agency to make sure they are implementing those schemes and being paid. That is, broadly speaking, where we are: advising the farmers to come up with the prescriptions that then can receive funding.

We are continuing with that work and we have KPIs for this year in terms of new schemes that we would like to bring forward. Of course, we are now into this transition period over a number of years, probably seven years, between where we are and the full implementation of the new scheme that will replace those that have been designed under European Union rules.



HOUSE OF COMMONS

In terms of what we will do at Natural England to help that, this is still a matter of discussion. At the moment we have a number of colleagues working with the teams in DEFRA to be able to work through the different options on how best to design the scheme in the first place and how we can learn from what has gone on in the past in terms of some of the overly bureaucratic, overly prescriptive approaches that have left some people feeling quite frustrated. Can we be more focused on outcomes? Can it be more farmer focused in terms of them taking control of the agenda? Some of these things are being looked at and various trials and tests are being thought through in terms of how we can understand that by doing some work in the field. Natural England has a role to play there.

In terms of when ELMS becomes a real thing, I would hope that we would be the principal agency helping Government to get the best possible value from that money in terms of the public goods that we talked about. Soil carbon we have talked a little bit about today, clean water would be another one, obviously the recovery of biodiversity would be one more, and then the public access and wellbeing benefits would be another. There would be public benefits in relation to cultural and historic heritage.

Natural England, I would hope, on much of that could be playing a role to help make sure that we do get the biggest benefit from public investment through that route. It may well be that we would be accrediting also advisers who would work with the farmers beyond what Natural England would do itself. One of the key things that will ensure ELMS success in the future will be good quality advice to farmers that they can trust, people they feel as though they can work with, and Natural England hopefully would be one of those advisory agencies, but it may be there would be others and we would be accrediting those to be working to very high standards.

Just on your first point about the multiplicity of actors in the countryside, but also in the cities increasingly, doing conservation work, one of the things that we do have to facilitate is everybody working together. It is kind of obvious. When you start looking at the landscape scale of what needs to be done in terms of connecting this bit of woodland with that wetland and greater corridors across large areas of landscape, we have to be working with the conservation groups, the farmers, the water companies, the developers, the local planning authorities, the local communities and everybody, more or less, has to be at least broadly in the same direction of travel. I would hope that Natural England would have quite an important role in facilitating and convening some of those discussions to make sure that we get the best possible fit between everybody's different interest, which is a difficult thing to do. One would hope that the statutory nature conservation adviser would be in a particular place to bring those kinds of discussions together because of its official role in advising Government, collecting data and reporting on the state of the environment.

Q27 Derek Thomas: That is helpful because I was trying to understand—you



HOUSE OF COMMONS

are right, all the groups I mention do exactly the same as you in terms of advising farmers how they can tick the box in order to deliver what Government want, or rather what the EU wants, and collect the money. You are right, it is overcomplicated and needs to be simplified and we need leadership in that area. Thank you for that answer.

We have touched briefly on the nature recovery networks. I see it as the most important and exciting part. There is lots that needs to be delivered in the environment to reach the target that we want to reach.

Tony Juniper: Yes.

Q28 **Derek Thomas:** The nature recovery work is a way of really bringing communities together and giving everyone a stake in how they look after, care for and engage in their community. Also look at wellbeing, health—we will be having a debate on this in a few weeks—mental health, for example; there are loads of pluses to be had. The Minister will know that I have been pushing for the Environment Bill for a long time, and she has been frustrated with progress among other things, or lack of; I do not want to put words in her mouth. When we get to the Environment Bill, what do you want to see in it that means we can genuinely deliver this nature recovery network that really delivers for everybody?

Tony Juniper: There is one quite big thing that for me will be the big prize and it relates to the work of the Committee on Climate Change and Lord Deben's team and how they manage to get such a big, positive impact. This comes down to the fact of there being a Climate Change Act that not only sets out the long-term target but brings attention back to that target periodically. I would hope that the Environment Bill could have something in it comparable to that kind of long-term view, perhaps a legal underpinning for the 25-Year Environment Plan, perhaps with a specific mention of the nature recovery network and perhaps with some nod, at least, towards some kind of indications. Climate is relatively easy in terms of the indicators, the carbon dioxide level; with biodiversity it is more complicated, but one would hope that we could find the way to capture that incredible ambition in the 25-Year Environment Plan to leave nature in better shape than we found it.

Some of those big targets there about nature restoration and the nature recovery network, if we could have that front and centre in that Bill I think it would help us to do the catch-up that we need on biodiversity behind climate change.

Q29 **Derek Thomas:** Maybe, Lord Deben, if we go back to your point earlier about the Government being a bit in silos in Departments, do you see the nature recovery network as maybe one area—I have been trying to think which Department probably would be excluded from it, but if you look at the nature recovery network as it is intended, as I understand it to be intended, it probably does cut across every single Government Department and maybe that is one way that we can get full participation from Government. Do you think that is a fair assessment?



HOUSE OF COMMONS

Lord Deben: Yes, I think it is. Mr Juniper and I agree that the other thing is that within this you need long-term agreements. You cannot make this work on a short-term basis, so you need long-term agreements so that people invest themselves in the future in that way. I think it is true that you could have a much wider involvement with various aspects of Government if you were doing that and you would have to do training.

You would also, of course, have another thing. When I was answering Ms McCarthy's comments, one of the things that we also did not have in our statement was the co-benefits that you get from doing this in order that we had the worst possible scenario to say that even in the worst possible terms we could still do this within this time. Once you start adding in the co-benefits, you begin to bring in other ministries, like the Department of Health, and you begin to recognise that this is a much wider matter, which is why we find ourselves always on the same side, because it is the same story, in effect.

Derek Thomas: That is great. Thank you.

Q30 **Chair:** Can I just clarify with Ms Coffey; did you say you were formally or formerly?

Dr Thérèse Coffey: Formally.

Q31 **Chair:** Formally, so you are not a former Minister, you are formally a member. Right, we did not want to get any fake news running on this day of all days. We do not want to be tweeting out any fake news. The Minister would be very welcome to join us whether she was the Minister or not and MPs can join their colleagues on other Select Committees, but thank you for that clarification.

Can I just come back, Mr Juniper, on the issue of money? Your budget has been cut from £265 million in 2008 down to £106 million grant in aid this year. That is a 60% reduction, huge cuts in the last five years, staff transferred over to DEFRA and the Rural Payments Agency, including on EU exit planning. There are very few examples where organisations can take that level of cut. What has gone as a result of that 10-year cut? What is your indicative spending envelope for next year given that the spending review now appears to have been postponed?

Tony Juniper: The effect has been, as you would expect, a drastic reduction in capacity, a reduction in our bandwidth in terms of the expertise that we have in the organisation. We have lost any budget to be able to work in partnership with, for example, NGOs or scientific organisations in terms of grant money that we used to put in that often could be used to lever other money, for example, from heritage lottery fund sources. We have lost all of that. We are now basically a skeleton crew, I would say, and that goes with the idea of being cut to the bone, doesn't it? The thin front line that we now have, I think, is getting to the point where despite the very good work that is going on from our colleagues across the country they are highly stressed.



HOUSE OF COMMONS

I have been struck by the number of people I have met, senior people at Natural England, who tell me two job titles when they are introduced to me—head of policy and also marine, for example: two very different areas but in the same person because we have had to combine quite big areas of activity into a fewer number of people. This has led to stress, it has led to impact on morale, and we have now no resilience in terms of our capacity to withstand a shock. As a result of us becoming underresourced, the risk of legal actions is going up and as those legal actions hit, of course, that then takes more resources away from the front line in order to be able to deal with those legal challenges.

Chair: We are going to come back and dig a little more deeply on those. Thank you for that.

- Q32 **Anna McMorris:** Just a quick follow-up question to that: obviously, Natural England only covers England. In the devolved countries, in Wales and Scotland, there is a lot being done. In Wales we have Natural Resources Wales, so bringing all of those organisations together. What work are you doing, because you are quite rightly talking about very limited budget resources, with Wales to reach across to look at the best practice that is done there, to follow what is being done, particularly on nature restoration and nature recovery networks?

Tony Juniper: There is quite a lot of informal interaction going on between colleagues in Natural England and colleagues in Scottish Natural Heritage and Natural Resources Wales. I have not yet met with the chairs of those organisations to compare perspectives and after my first three months—

- Q33 **Anna McMorris:** With the Minister in Wales, with Lesley?

Tony Juniper: I have not met with the Minister either, no.

Anna McMorris: I would urge you to do so at your earliest convenience because I think that would be—

Tony Juniper: Funnily enough, I signed letters this week inviting the chairs of those organisations to a meeting with the Committee on Climate Change, with the Environment Agency and others for us to get together to begin to interrogate exactly this question as to how we can combine our collective efforts more effectively.

- Q34 **Anna McMorris:** The other very different framework within Wales is, of course, the Wellbeing of Future Generations Act, which sets a duty across the whole of Government and public bodies to work on climate change and sustainable development. Lord Deben, if you could push that within the UK framework, then we would be partway there to ensuring that there is a bar with which to reach our targets.

Lord Deben: We have always said that one of the advantages of devolution is that you can see how much better Wales is doing, for example, both in this area and on waste than the United Kingdom as a whole. Scotland is ahead of the United Kingdom on almost every point.



HOUSE OF COMMONS

One of my problems is just to get English Ministers, so to speak, to take that seriously and ask themselves, "Why is it that DEFRA does not do as well on waste as the Welsh do? Why is it that we don't do as well on so many things as the Scots do?"

Anna McMorris: We can ask the Minister; she is sitting right there.

Chair: I think we are at risk of mixing up the apples and the pears. Thank you, we will move on with a question from Alex.

Q35 **Alex Sobel:** Just to dig into the issue around staff resources, there has been a mixture of redundancies and secondments to DEFRA, particularly around Brexit. Are your resource and staffing issues to do purely with budget or are there more factors at play?

Tony Juniper: The principal challenge relates to budget and the headcount that we are able to sustain on a rapidly diminishing body of income over recent years. So, yes, compared with five years ago we are on a 48% cut, very rapid decline, and depending on what happens next year it could be that more is envisaged. That would obviously lead to greater stresses and strains under the circumstances that we already face.

There is obviously lots of complexity with different moving parts in terms of Brexit and everything else and demands on us to be able to contribute to some of that. However, the principal pressure is the fact that we have been unable to maintain the body of staff that we need in order to do the basics. What I would really like us to do is to get beyond that point and into a position of being able to work with colleagues across Government in implementing the 25-Year Environment Plan but that is going to require us to step into a new budgetary envelope.

Q36 **Alex Sobel:** How would you describe staff morale and the ability for the organisation cohesively to undertake its responsibilities?

Tony Juniper: Staff morale has improved over recent months from what I am told. I have only been in post three months so have no direct knowledge of what was going on before, but the new interim chief executive has done a very good job in being able to build a clear picture of where we are heading and what kind of ambition we will have slightly over the horizon. She is now working on a transition between where we were and the adoption we plan early next year of a new 5-year planning horizon for the organisation. Hopefully at that point we will be able to see more clearly again where we are heading in terms of our new strategic priorities, linked very much with the 25-Year Environment Plan and what will come through with the Environment Bill and the Agriculture Bill.

These are pieces that are coming together and the more that they come together and the more we can paint a clear picture for staff, the more they feel, in my sense, able to be motivated and to feel as though they are excited about the future.



Q37 Alex Sobel: Obviously, you talk about your own five-year forward planning. We are supposedly getting a spending review, although quite when it comes is unclear. We might find out very shortly. In terms of delivering the 25-Year Environment Plan and the priorities that you are not carrying on—for instance, supporting NGOs, environment case work, and the work on SSSIs—what have you asked for from the Treasury in terms of the spending review and what work do you hope that you will be able to undertake if you get a favourable settlement in the spending review?

Tony Juniper: We are working very closely at the moment with DEFRA colleagues who are obviously putting together the departmental case for the spending review. Just in terms of headlines as to where Natural England is calculating its needs as we look slightly forward, the first headline is to see a gap of about £40 million between our current budget and what we need to do the statutory basics that we talked about a moment ago, including some of the work in relation to the SSSIs, the national nature reserves and some of the planning work, never mind work we wish to do on access. We have the Glover review coming, of course, which is going to be drawing attention to landscapes. We should be doing much more there. If we wish to close that gap it is about £40 million, we estimate.

If we are to get into a position of beginning to implement the 25-Year Environment Plan, that is a further £100 million, and if we wish to be in a position of fully implementing the 25-Year Environment Plan we are estimating that is in the order of £300 million, which takes us back quite close to our budget in 2008. If you add inflation and new Government ambitions, had we maintained that level that would put us back to where we were, pretty much. I don't think even that £300 million, which is a very big number, is massively different from where we would have been had we not been subject to this very large scale set of cutbacks that have occurred over the last decade or so.

The choice is there, but my encouragement would be for Ministers who are thinking about this to see this as possibly the soundest investment that we can make in the future of the country. The environmental economists have estimated that the returns we get from investing in the recovery of nature are between 10 to 100-fold. Unlike other assets like roads or bridges—if you invest in them you get depreciation—investing in the recovery of nature you get a more valuable asset in the future, bringing many, many returns at so many different levels.

It is quite striking to note that the budget of DEFRA is under 1% of the overall Government spend, yet the environment is where our entire economy and society exists. Without a healthy environment it is not possible to have a healthy economy or society. That investment is fundamental, I would say, in everything else, so seeing that opportunity for moving decisively and with real ambition towards the goals in that 25-year plan and the net zero policy—and the two are very closely related—I



HOUSE OF COMMONS

think would be one of the soundest investments we could make as a country over the next decade.

- Q38 **Alex Sobel:** Just to be clear, if the Government provided £300 million in budget, there would be a return of at least £3 billion, is that what you are saying in terms of environmental gain?

Tony Juniper: Yes. The Natural Capital Committee and various economists working through, for example, the economics of ecosystems and biodiversity put those kinds of broad numbers out there in terms of the return we get. Environmental economics is an emerging field and big discussions still about measurement and everything else. Take the carbon question. If we want to go very low carbon, one of the cheapest things we could do would be to invest in peatland recovery and woodland regeneration. Wind turbines and nuclear power stations, they cost some money. Cheaper still is going to be investing in the recovery of nature and then we get those co-benefits for adaptation, for biodiversity conservation, for clean water and, of course, public enjoyment if we invest in the right way. Increasingly, at Natural England we are able to advise on how to do that.

- Q39 **Kerry McCarthy:** That leads nicely on to my question, which is about peatlands and other forms of carbon storage through land management techniques. As you say, peatlands have huge potential for sequestration but if they are not managed well they are emitters of carbon. How can Natural England redress that? Do you have the resources, the powers? What needs to be done to make full use of them?

Tony Juniper: We are very excited about a new peatlands strategy that is being prepared by DEFRA at the moment and looking forward to working with colleagues not only in DEFRA but the Environment Agency and whoever else we can be working with to implement that policy.

In terms of the tools that we have for doing that, obviously the new ELMS policy and existing countryside stewardship are one tool that we have in the box for encouraging land managers to do more for peatland recovery. We are going to have to go a lot further than that, including through the restoration of already very degraded areas. I happened to visit one last week in Cumbria, one of our newest national nature reserves, a place called Bolton Fell and Walton Mosses. This is an area that was subject to horticultural peat extraction for several decades. It looks like a pretty brutal ecological disaster and it is, but what we are now finding on the ground through doing experiments and through working with various scientific partners is that we can regenerate that ecosystem. We are beginning to find that the sphagnum mosses are coming back and we are finding that by managing the water level in particular we can start to get that system returning into a functioning bog once more.

We do increasingly have that expertise but obviously then it becomes a question of what level of resource we have behind that programme of peatland restoration. There is that side of it.



The other side of it in terms of what we can do is really about working with people to encourage good management from the point of view of bog recovery, blanket bog recovery or lowland raised bog recovery. We have increasing experience of working with people in the uplands at the moment to encourage them to move away from burning and towards other forms of land management. The crucial thing about peatlands, which I think probably is the simplest thing to say, is that the big task is to get them wet again and to be able to get water back on to the surface because that is what then facilitates the peat-forming dynamics as the mosses and the other plants accumulate on the surface.

Lord Deben: If we do not do it, it gets worse—that is the real point from our point of view. It is not just a question of making something better; it is that if you do not do it the situation gets worse all the time. That is why it is so crucial to both biodiversity and to climate change.

Q40 Kerry McCarthy: It has been suggested by some, including I think the RSPB, that there should be a ban on the sale and use of peat-based products in horticulture. That is one suggestion. The other is a ban on the burning of blanket bogs. How do you feel about that?

Tony Juniper: It is interesting. For my entire career in conservation there has been a discussion about whether we should be moving away from horticultural peat, and I think it is high time we stopped using it. Before I came to Natural England, I happened to be working with a company in the horticulture sector that had been experimenting with non-peat alternative composts. They showed me work that they were doing that revealed how the garden plants that they were producing were doing much better in peat alternatives than they were in peat. I think we have now reached the point where we have cracked some of the technical issues around plant propagation, for most purposes at least, and probably we would be in a good position now to phase out horticultural peat.

Talking of the Government estate, I wonder if there is a policy across Government yet to ban horticultural peat, for example, in the gardens and premises of different Government Departments. I do not know if that is the case, but considering that we have been talking about this since 1990, to my certain knowledge, one would hope that by now we would have made progress in that regard.

Lord Deben: Let's say, "We are going to ban it in two years' time", my goodness, by that time there would be alternatives. If you take the measures then the technology will come, and all of those companies, if they do not want to go out of business, will produce something that works. That is why it should be, I think: two years' time, no more peat.

Q41 Kerry McCarthy: I vaguely recall asking the Minister about this recently. She might nod at me. She was talking about educating—it might not have been the Minister—people so that they shopped for non-peat based alternatives.



Lord Deben: Have you ever tried to read the labels? I bought some compost—although I try to produce as much compost myself—that I thought did not have peat in it until I got it home and then in incredibly small letters you discover that there is peat in it. This is something that we should just say no—

Tony Juniper: The public education side of this has been going on for 30 years, and if you go into the garden centres now, as Lord Deben says, not only is it very hard to find the peat-free section, which often does not exist at all, you may be picking up something that looks like it is peat-free but is not. I do not think there is any labelling that is very clear and standardised, which is a big label that will go in the middle of those bags of product. There is a continuing issue there and I do think we have reached the point where, as I say, we know that there is no good peat dug out of the ground. Peat, from the point of view of the environmental benefits we get from it, is better off left where it is. To that extent, moving more firmly in that direction would be logical from a science point of view and also from the point of view of the experience we have had with public behaviour. Quite a lot of people may be confused, other people may not even get the message, so I think we need something a little bit more decisive in that regard.

On the blanket bog burning, we have been in very intense discussion with moorland owners over recent months to encourage moving towards cutting rather than burning. We have met with some success in that regard but more needs to be done. I do believe that it is the case that DEFRA is looking at possible legislation on that subject at some point in the future should we not be able to succeed with a purely voluntary approach.

Q42 **Kerry McCarthy:** There would be the argument from grouse moor owners or whatever that what they do is good from a conservation point of view. You are saying cutting would be okay but the moment you get into burning you are drying out the peat and, therefore—

Tony Juniper: This is a very complex and multi-layered discussion in terms of the science of it all. One dimension is the carbon dimension and the extent to which burning is good or bad in relation to the carbon accumulation in a blanket bog, and one would expect that setting fire to it probably is not going to be, in the short term at least, good from a carbon point of view. Then there are issues to do with the vegetation that comes with mow or burnt management regimes that then lead to more or less good habitat for things like golden plover and curlew and merlin. Then there are issues linked with water quality and the extent to which burning tends to release particles into the water that is coming down the hill, which then presents sometimes, under some circumstances, problems for water companies that are providing public supply. All of these things need to be in the discussion at once.

There is very deep, technical literature about all of that stuff, which makes this quite a hard subject to be very decisive and deterministic



HOUSE OF COMMONS

about in terms of this being better than that. Broadly speaking, we take the view in the position statement that we published either late last year or early this year—before my time—that burning is not something that is to be seen as a routine good management practice for blanket bog in terms of the broader health of those systems.

As I said a moment ago, the thing that is key to the health of those kinds of habitats is how wet they are. Getting the water back on, blocking up the drains, reducing some of the historic drainage works is possibly top priority.

Q43 Kerry McCarthy: Can I briefly ask about salt marshes as well? Is that something that Natural England—

Tony Juniper: We are very keen on salt marshes.

Q44 Kerry McCarthy: What are you doing to demonstrate your love for salt marshes?

Tony Juniper: Salt marshes are a very important habitat from the point of view of various plants, birds and invertebrates. They are also very significant carbon stores. I was very surprised to learn a couple of years ago that in a hectare of healthy salt marsh around the British coast you may find more carbon than in a hectare of tropical rainforest. Rather than in the rainforest with the carbon being mostly in the vegetation above—apart from peatland rainforest, of course—you find that the carbon is trapped in the sediment's organic material in layers being accumulated as the salt marsh grows.

What we have done with quite a lot of our salt marshes is we have reclaimed them and turned them into grazing marshes or out to agriculture. Quite a few of them have been drained and dissected by infrastructure. Some of them have had ports put on top of them. There are some quite troubling statistics about the level of salt marsh losses, particularly around the south-eastern coast of England, and that obviously brings various environmental impacts in its wake.

One of the very exciting things—and this is work we have been involved with on the ground in different parts of the country, including with the Environment Agency—is to look at the extent to which it is possible to restore salt marshes, not only as a wildlife habitat but also potentially as a carbon store and as a way of having more resilient coastal defences into the future as we face the effects of sea level rise and more extreme weather conditions.

I know in Thérèse's constituency, in one place I visited with the Suffolk Wildlife Trust recently, we saw an area where in, I think, 2014 with the very high tide the coastal defences were overwhelmed, but the decision afterwards was to leave it as it was—to leave this area of grazing marsh, which had been inundated by the sea, to return to salt marsh, which did happen. This has then proven subsequently to be a good way of keeping the sea at bay. It is a very good new habitat, bringing in many birds, but



HOUSE OF COMMONS

one of the most interesting things I heard was how that piece of new salt marsh, only a few years old, has already turned into a very significant nursery area for Dover sole and bass that are coming in to spawn there, because these shallow water habitats are very important for oceanic fish. You can foresee even an impact positively out into the near ocean where people in years to come will be catching fish that have been bred in this new area of salt marsh—another example of co-benefit.

Just to emphasise the importance of these coastal ecosystems on the carbon side, there are three marine habitats that hold 50% of the marine carbon: salt marsh, sea grass beds and mangroves. Those three habitats between them, holding 50% of the carbon, are just 2% of the coastal and marine area, so a very high concentration of carbon into these very particular habitats, of which we happen to have some in the UK, the sea grasses and salt marshes.

Q45 **Kerry McCarthy:** Does your remit go—

Tony Juniper: Twelve miles.

Kerry McCarthy: Twelve miles out, does it? Okay.

Tony Juniper: Then the JNCC take over.

Q46 **Kerry McCarthy:** I just wondered because we are still waiting for the third tranche of marine protected areas, aren't we?

Tony Juniper: Yes. That list of 41 further sites was published in May.

Q47 **Kerry McCarthy:** I do not think we have really looked at that from the point of view of carbon sequestration. There is also some really interesting stuff being done with seaweed farming, which is a good substitute for plastic packaging, and it is also a massive carbon sink.

Tony Juniper: Yes. There are huge opportunities for innovation for UK companies to be looking at this, I would say, sustainable management of the marine environment in that way as well.

Q48 **Chair:** We have a fun fact of the salt marshes being as good as the Amazon rainforest. We live for facts like that on this Committee. Thank you for that.

I am going to bring the Minister in, but this 18 million tonnes of carbon dioxide—this is going on in the North York moors, which I saw when I was visiting Brimham Rocks a couple of years ago—what is that the equivalent of in terms of industrial emissions or cars? Can anyone do the maths? Eighteen million tonnes of carbon dioxide and peatlands in poor condition.

Tony Juniper: There are different numbers. I have not heard that one before. One fun fact that I will give you on that, which I recall from a piece of research I did a few years ago—and this is UK rather than England—is the emissions of carbon dioxide from British peatlands, so this is degrading peatlands, are equivalent to the combined emissions of



HOUSE OF COMMONS

Edinburgh, Cardiff and Leeds, just to give you a sense of the scale. That is annually.

Chair: Thank you.

- Q49 **Dr Thérèse Coffey:** Thank you. It is my first time ever on this side of the table. To explain for other Committee members—I know you are not interrogating a Minister during this session—an interesting thing to me was about the IPBES report.

Chair: Sorry, could you declare your interests?

Dr Thérèse Coffey: Sorry, to declare an interest, I am the Minister for the Environment. Do I need to declare anything else?

Chair: Do you have any landholdings, properties, revenues from Government schemes?

- Q50 **Dr Thérèse Coffey:** No, apart from my ministerial salary. Thank you, Mary.

One of the things about the IPBES report is about the threat to nature in the future and habitat is the most important, climate less so. One of the challenges that people often find is that climate has often won over nature at times and stuff that has been fantastic for climate or carbon reduction has not helped nature. We have two fantastic people in front of us. Lord Deben used to be the MP for Suffolk Coastal before I was. You are a statutory adviser through the Committee on Climate Change. Natural England has two roles: you are a statutory adviser and you are a delivery organisation, so DEFRA delegates to you.

Help me understand about how you and the Committee on Climate Change can really work together more. The reason I say that is we have just had a chat about salt marshes, and one of the things that I tried to push, building on Suffolk Coastal where we do have salt marshes and so on, is that the formal calculation does not show that salt marsh is as good on carbon as many of the other matters that we do. At times it gets difficult for Government to push on things, although I have pushed salt marshes and, indeed, mangroves, when some of the official statistics do not back that up.

What I would love to hear more about in your role as statutory adviser to the Government is how you will work together to help us respond to the IPBES report with nature-based solutions. It is going to be a huge part of the climate pot next year. How could your two organisations work together more formally in making sure that carbon discussions are not solely about energy and transport?

Chair: Let us start with four parts per 1,000, which we have questioned the Minister on before.

Lord Deben: First of all, Ms McCarthy actually suggested we had not been as good on land use as we ought to have been. We produced our first report, we are producing at this moment our second report this year, and we shall be doing a third report on that. One of our problems, and it



HOUSE OF COMMONS

is a real problem about land use, is that an awful lot of the basic details, measurements, have not been there. I would start off by saying one of our problems has been that we have not had basic measurements.

DEFRA, to its credit, now has some basic measurements. I stopped some of the reporting on farming because I did not believe it stood up. I thought it was all anecdotal—what the farmers said they had done—and everything else we wrote about was based upon a baseline. You measured it and you said, “That has gone up by 2%” or 2 degrees or whatever it was, and you could not do that with agriculture. I start off with an assumption that if we have a sensible Government of any kind or party, there should be a ministry of land management or land use. That is the first thing you have to do.

DEFRA should become a ministry of land use and it should have planning powers. It is outrageous that planning should be in the hands of the Department that also is the first bit of the planning system, meaning that your appeal is to the same lot who gave the planning permission, or did not give it, in the first place. It does not happen anywhere else in Europe. Everywhere else in Europe has a different set-up; you appeal to a different set-up. Land use seems to me to be absolutely crucial to both our jobs.

Tony Juniper: It is.

Lord Deben: Secondly, because we have been doing this work we have been working more closely with Natural England and with the Environment Agency. We try to do this as much as possible, but in future, in doing the third lot, this will be, I hope, as much a joint operation as possible. So we will do that.

I come back to that use of the Better Regulation Delivery Office. It would be very helpful if a Department would say to us, “Look, we want this balance. Can you help us get the balance right?” If we were asked to do that, that would certainly be something that we would turn to and we would be working together. As you see from our testimony, we are in the same place. We both take the view that climate change—it is the Pope’s phrase—is a symptom of what we have done to the world. All these things come together; it is a symptom. Therefore, to try to deal with it we have to do it together.

Tony Juniper: On this net zero piece in particular, collaboration across the different agencies is going to be crucial to how we succeed. How we co-ordinate that and how we do the day-to-day collaboration is quite an important question. We will have a meeting, won’t we, quite soon to discuss some of these headings?

Lord Deben: Yes.

Tony Juniper: There is one case in point that does bring to the fore many of the questions we have talked about, and this is the tree-planting



HOUSE OF COMMONS

target and the extent to which we want to get 11 million trees in the ground during the course of this Parliament. That is very good from a carbon point of view, but if you put the wrong trees in the wrong place it can be disastrous from a biodiversity point of view. Answering that question through the tree-planting prism might be an interesting way to look at some of the lessons to be drawn about how you get the best possible join-up between the Committee on Climate Change, Natural England, what might be the priorities of Forestry England and the Environment Agency so there will be adaptation, public enjoyment, biodiversity and carbon all at once.

Lord Deben: It should include a mechanism that means you pay for the trees when they are growing and not just when they are planted. There are a lot of dead trees around that people planted and got paid for but did not care for. I am much more interested in what the programme should be, having got them in the right place, to make sure that people look after them so that in 10 or 20 years' time they are still looking after them.

Tony Juniper: To also come back and collect the plastic tubes that they left behind.

Lord Deben: Absolutely, instead of leaving them outside, yes.

Tony Juniper: Or better still, do not have them at all and have the natural regeneration rather than tree planting.

Chair: I am sure we can manage that.

Q51 **Jeremy Lefroy:** Just very briefly on the question of land management, which I very much take on board, in my constituency HS2 is going to go through an inland salt marsh and an ancient woodland, indeed as it is along a number of parts of the route. Is there a way in which we can plan these major infrastructure projects without putting in the kind of stipulations that in this case mean that if you travel at 400 kilometres per hour you have to build something that is very straight, and if you build it straight it takes away whatever is in its path? Is there a way of having some kind of hierarchy within Government as to what is more important? Is it more important to have a 300 kilometres per hour line as opposed to a 400 kilometres per hour line, yet then be able to make the route such that it does not cause this destruction to some of these habitats that we are talking about? Or do you think that is just something that will never happen?

Lord Deben: You are highlighting the fact that people do not take these various issues as seriously one as another. Why the public finds this so difficult is that they do not really believe that the environmental considerations or the climate change considerations are being taken as seriously as the industrial or capacity considerations. As I understand it, HS2 is a capacity issue rather than a speed issue. Indeed, it was misstated at the beginning by Government Ministers talking about speed



HOUSE OF COMMONS

to get to places. The issue is we do not have enough capacity because of the enormous success of the railways, which is something one might be cheerful about. The first thing you have to do is to convince people that these things are taken with a similar seriousness.

Interestingly, I do not think that any statutory authority has been asked to look at HS2, not to tell the Government whether they should have it or not but to look at it and say, independently, "These are the issues that you have to take seriously". Here is a challenge, to take yours: would you prefer the train to go 50 miles per hour less fast and save this? The challenge has to be made in a way that the public feels that each of the elements are being taken seriously and in their own right. It does not mean that you always say that the environmental downside is so great that you cannot build anything but, on the other hand, you must not be in the position I think we are in at the moment that people believe that once you have decided you have to build it for good reason these other things become just dressing.

Chair: I thank you both very much indeed for a very stimulating discussion. We look forward to hearing from you again in the future, either separately or together. Thank you very much indeed.