

# Environmental Audit Committee

## Oral evidence: Sustainable timber and deforestation , HC 637

Wednesday 26 October 2022

Ordered by the House of Commons to be published on 26 October 2022.

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Members present: Philip Dunne (Chair); Duncan Baker; Caroline Lucas; Jerome Mayhew; Anna McMorrin, Dr Matthew Offord; Claudia Webbe.

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### Witnesses

**I:** Andrew Carpenter, Chief Executive, Structural Timber Association; Stuart Goodall, Chief Executive, Confederation of Forest Industries UK; Nick Phillips, Forestry Policy Lead, Woodland Trust; and Ian Tubby, Head of Forest Services Policy and Advice Team, Forestry Commission.

**II:** Dr Alan Knight , Group Director of Sustainability, Drax Group; Professor Michael Norton, Environment Programme Director, European Academies Science Advisory Council; and Professor Patricia Thornley, Director of the Energy and Bioproducts Research Institute, Aston University.

Written evidence from witnesses:

[Confederation of Forest Industries UK](#)

[Woodland Trust](#)

[Drax Group](#)



## Examination of witnesses

Witnesses: Andrew Carpenter, Stuart Goodall, Nick Phillips and Ian Tubby.

**Q1 Chair:** Good afternoon and welcome to the Environmental Audit Committee where we are very pleased today to commence a new inquiry into the sustainability of UK timber supply and of biomass supplies in two separate panels.

We launched an inquiry into timber and deforestation, looking at domestic production and supply as well as the impact of the UK economy on international forestry.

We will start with our first panel, listening to representations from the forestry and timber sector here in the UK and will begin by inviting our panellists to introduce themselves very briefly and say what their roles are within the organisation they represent.

**Stuart Goodall:** I am the chief executive of Confor, the representative body for the UK forestry and timber sector encompassing everything from nurseries to sawmill and panel board businesses.

**Ian Tubby:** I am head of the policy advice team at the Forestry Commission. We provide evidence and advice to colleagues in DEFRA and other Government Departments and also work closely with the forestry sector and landowners.

**Nick Phillips:** I lead on forestry policy for the Woodland Trust, a charity working on woodland creation, protection and restoration for people and nature.

**Andrew Carpenter:** I am chief executive of the Structural Timber Association. We represent everything that is customer facing within the sector, predominantly designers, engineers, manufacturers, installers and erectors within the structural timber frame sector, which encompasses timber frame, SIPS and CLT predominantly.

**Q2 Chair:** I will start by trying to set the scene a bit and invite Ian Tubby to give us an overview of the role of the Forestry Commission, how within Forestry England you take your responsibilities for supplying timber in the UK to British timber users and where that sits in relation to other responsibilities for other objectives for the forestry estate.

**Ian Tubby:** The Forestry Commission is made up of three parts. Forestry England manages the public forest estate and supplies about 1 million tonnes to market each year, which is roughly 50% of softwood reaching the market in England.

The next part of the organisation is Forest Services. Our job is to regulate forestry in the private sector and to incentivise the planting of new woodlands and the management of existing woodlands.



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The third part of the Forestry Commission is Forest Research, which provides a lot of the evidence base on which forestry policy is based. It also produces quite important documents to the sector, such as the 25-year Softwood Availability Forecast.

**Q3 Chair:** Can you give us some historical context as to why it is that the UK has such a low proportion of our landmass covered by forest compared to other countries in Europe?

**Ian Tubby:** Forest cover extended across much of the country several centuries ago and was cleared over the centuries to make way for agriculture. Forest cover dipped to somewhere around 5% in the early 1900s. The Forestry Commission was set up after the First World War and its task was to establish a strategic timber reserve for the country after the country had almost run out of timber during the First World War. Over the following 100 years, forest cover across the country was doubled and that has enabled us to increase production at a UK level from 2 million tonnes to about 10 million tonnes of softwood today. On the back of that resource that was established over that century, we have had investment from foreign companies looking to produce either sawn timber or composite wood products. We have also seen investment from British companies on the back of that resource, looking to supply the market with timber products.

**Chair:** I have just been reminded that it might be appropriate at the beginning of my questioning to declare my interests. I have responsibility for a family farm that has woodland on it, which is managed by us. I am also the freeholder of some Forestry England acreage, which was provided to the Forestry Commission by my great-great-grandfather for the princely sum of two shillings and sixpence an acre with no inflation adjustment for 999 years. We are just about to celebrate the 100th anniversary of that contract.

If anybody else would like to declare interests, now might be a good moment.

**Jerome Mayhew:** I have two declarations of interest to make. I, too, am a director of a farming company just in forestry but more pertinently I was managing director and a significant shareholder of a company with commercial relations with the Forestry Commission, Adventure Forest Limited. Although I have no direct shareholding left, I have a financial relationship with that business.

**Q4 Chair:** Thank you, Jerome, and I'm sorry—we should have started with that.

Ian Tubby, the historic context is helpful and you have explained that you have increased the volume of supply to 10 million tonnes from 2 million tonnes over the past 100 years. What are your forecasts for what the demand is likely to be over the next decades rather than hundreds of years?



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**Ian Tubby:** I should first clarify that forestry is a devolved policy matter in the UK and that I will swap between English and UK statistics. I will try to remember to let you know when I am talking about which country.

Forest Research publishes 24-year softwood availability forecasts. Put very simply, there is not enough conifer resource in the UK to allow us to significantly reduce reliance on timber imports from today's levels. We are importing 81% of the wood that we consume.

Forest Research predicts that the availability of timber will increase from about 15 million cubic metres per annum from 2022 to 2026 to up to 18 million cubic metres in the late 2030s and early 2040s and then availability will decline in the early 2040s, back down to about 15 million cubic metres a year.

I should stress that there is a difference between what is forecast as available and what comes to market because that is price-dependent and not all wood that is forecast as available will reach the marketplace.

Q5 **Chair:** I think you said that you have been focused on softwood. Does that mean the Forestry Commission produces no hardwoods for the timber sector?

**Ian Tubby:** No. Of the woodland resource in England, 75% is broadleaf and it has all been managed to produce timber and fuel in the past. That has shaped the biodiversity that we value today but although it is the dominant resource, it only produces about 25% of the timber that reaches the market. We are very keen to find ways of increasing the production of hardwood because that will help us restore habitat and also give the owner a chance to address pest and disease problems and increase adaptation to future climate change but the hardwood market is very small compared with the conifer market. Only about 1 million tonnes is produced.

Q6 **Chair:** Are you planting broadleaf plantations with a commercial objective in mind? Or are they being planted with natural regeneration or amenity views initially?

**Ian Tubby:** At the moment, most woodland creation in England is being driven by the private sector. We offer a demand-led grant scheme, England Woodland Creation Offer. It is species agnostic. It is down to the owners to decide what they want to plant. Previous grant schemes have focused very much on biodiversity and planting to manage water and so on. The trend since the 1970s and early 1980s has been for broadleaf planting to dominate. Broadleaf has been about 80% of what has been planted in recent decades and management objectives vary. It is difficult to grow good-quality oak in the country at the moment because of squirrel damage. Squirrels are a costly pest to deal with and do limit growing hardwoods to timber-quality standards in large parts of the country, which is why most of the hardwood resource that is harvested goes to firewood and energy markets.



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**Chair:** Stuart Goodall, I think you wanted to come in on the demand question.

**Stuart Goodall:** Yes, if I could pick up on that point. Ian Tubby has set out very clearly the situation with availability on the demand side. We have looked backwards over the last 10 years to establish the average growth in consumption each year and if we take that average over the last 10 years and project it forward, the calculation comes out that by 2050, consumption will increase by 78% over where we are just now. That sounds like a huge figure and it is certainly significant growth but I think it is realistic. Looking at the international context, global studies by organisations such as the OECD and many others point to a global increase in demand for timber of anywhere between two and four times current levels of consumption by 2050. I can come on to why that is happening.

I totally support Ian Tubby's point about hardwoods. We have members who would love to grow quality hardwood. The challenges are squirrel and deer and as a result of being able to manage those pests, and also diseases, we reckon about 90%-plus of the hardwood we currently produce go to firewood, which is clearly sub-optimal compared to things such as timber construction and the kinds of markets that we would like to see hardwoods coming to.

Q7 **Chair:** I think that takes us to Andrew Carpenter's side of the business, the end users. Our Committee did an inquiry into the sustainability of the built environment and saw there was a very clear demand for an increased use of timber in construction for houses and even for commercial space. Do you recognise the kind of figures for increased demand that Stuart Goodall mentioned compared with where we have been?

**Andrew Carpenter:** Yes. As a starter for 10, we applauded the setting up of the timber and construction working group nearly 12 months ago. If we can make that follow through, we think that there will be a significant increase.

We are doing some work behind the scenes. We have only met twice as a working group so far. Our next meeting is in December and ahead of that we are moving towards trying to provide some figures. I can share some with you today. I asked my colleague who was putting them together to give me an update. These are not final figures but where we are now, about 27% of construction in housing is timber and a very small amount of that is homegrown at the moment. It equates to an overall timber-frame share in the UK of about 22%, so about one in four, one in five, homes is timber-framed and that is predominantly in Scotland. It is a lot less in England, only 12%.

There is some low-hanging fruit if we really do want to make this work and that is to move from masonry homes to timber-frame homes. If I move you on, the minimum figure we are hoping for by 2050 is 40%



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share. That would give us, moving from 27% timber in a house to 45% timber in a house. If we were to get to 50%, it would take us up to 51% timber in a house. If the timber in construction strategy works, and we are looking at all sorts of headings which I am sure we will go through later, we do see a significant increase in need.

**Chair:** I think Nick Phillips wanted to come in on the earlier part of the discussion.

**Nick Phillips:** Yes, to add a bit more UK context.

At the moment, about 13,000 hectares are created at UK level, in a rough split between conifer and broadleaf, and about 10,000 of that total is in Scotland. So although we are planting more broadleaf in England, we are not planting very much of anything and lot of not very much is still not very much so the UK picture is probably as important now.

Q8 **Chair:** Can we widen the discussion to the international picture? I think we are the second largest importer of timber of any country by proportion compared to homegrown. Can anybody comment on the international supply of timber and what the challenges are there? Are we, by virtue of the extent to which we import, contributing to deforestation inappropriately elsewhere?

**Stuart Goodall:** It is a shame that a report that is currently in development has not been published yet. It is going to be published later this week or early next week ahead of COP27.

Q9 **Chair:** Is that a UN report?

**Stuart Goodall:** It is being prepared in collaboration with FAO, which a UN department for COP27. One of its principal objectives is to look at the projected growth in demand and the projected forecast increase in availability globally. It shows very starkly that under every scenario out there or understood, the gap between the increase in demand and the supply will increase significantly at a global level.

Clearly in practice, market realities kick in, but what that will do is put significant additional pressure on where wood comes from. I think it is fair to say that anybody connected with the UK's forestry sector is trying as hard as possible to ensure that we have sustainability in our own resources but also can guarantee that the imported wood we use comes from sustainable and legal sources and that does raise concerns for us that it will put pressure on fragile forests, encourage illegal logging and have negative implications for habitat. We do want to use more wood because we will not be able to achieve net zero without it but we have this conundrum which for me is why this inquiry is extremely important.

**Chair:** It will also put prices up if demand outstrips supply.

**Stuart Goodall:** Definitely. We saw that when during the pandemic people were building, doing extensions and other things in their houses.



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We cried out for more wood and the forestry sector carried on producing wood because it was an essential product. For example, in logistics we needed wood for pallets to move food and pharmaceuticals, and for energy, for heating, for fencing for farmers and many other uses. So we kept going, as did other countries, but the supply chains were just not there and the supply was not there to keep up with demand. Prices rocketed and as a result we are in a bit of a boom and bust scenario. People brought forward their ambitions for building and now we are seeing that fall away as part of the economic decline and the industry is suffering that hangover. All we need to do is go back to same kind of scenario but played out over a longer period to see exactly the same impacts.

**Chair:** Ian Tubby, you have some responsibility for the international situation.

**Ian Tubby:** I do. I keep an eye on what is happening internationally because it has a direct impact on what happens here. Most of the timber that we import to the UK comes from the EU and the forest area of the EU is increasing and it is also increasing in Asia and is stable in north and central America. The forest area is declining in Africa and South America but we do not source much timber product directly from those parts of the world. However, within the EU it is likely that the availability of timber will go down. There is understandably an emphasis on managing forests to improve biodiversity. A recent study suggested that that could result in a 31% reduction in the availability of timber as forest management practices change. That could have an impact on the market within the EU and how we source timber from there.

I don't know if we are going to come on to it later, but pests and diseases are also beginning to have an impact on international supply chains. I think we are going to encounter that and also extreme weather more frequently in years to come. Last year Storm Arwen knocked down several million cubic metres of timber in the UK and similar storms are happening in Europe and other parts of the world. I think, therefore, that we are getting to a stage where globally we need to start making some quite difficult decisions around whether we start managing currently pristine woodlands for timber or if we start planting forests where timber production can be carried out sustainably. The World Wildlife Foundation did some very interesting work a few years ago looking at that very issue.

Q10 **Chair:** The fact that you are posing that question suggests to me that that is not part of the current objective of the Forestry Commission.

**Ian Tubby:** No, it is well outside our scope.

Q11 **Chair:** Are you suggesting that if this Committee is making recommendations to the Government, we might like to think about asking the Government what their plans are for producing timber in a commercially viable or sustainable manner from the forestry estate they



are responsible for?

**Ian Tubby:** Absolutely. We do need to look very carefully at what we are doing with our timber supply within the UK and at what job is for the Government and what job is for the private sector to take on to increase sustainable levels of supply.

Q12 **Chair:** I will bring Anna McMorrin in in a second but I have one more question, probably for Andrew Carpenter but any of you might want to respond.

Ian Tubby has helpfully indicated broadly where supply comes from. Do we tend to import any specific species that can only be sourced in some of the parts of the world that are currently subject to excessive deforestation? Are we getting hardwoods from Africa or South America because they are not available anywhere else?

**Andrew Carpenter:** My members are using softwoods, predominantly from Sweden. The vast majority of my members will be using Swedish wood. My CLT members will probably be using Austrian timber—CLT is cross laminated timber, a form of structural timber which increasingly is being considered for high-rise developments in a city to replace concrete and steel—but they are not reporting any difficulty in obtaining the timber they require.

Q13 **Anna McMorrin:** Let's move on to look at how we could increase production of timber domestically instead of importing and the need to plant the right tree in the right place and ensure sustainable management of forestry while making sure that climate commitments are met. What contribution to meeting the UK Government's own tree-planting commitments and targets of 30,000 hectares of trees a year could productive planting have? I know as a Welsh MP, by the way, that there is another target in Wales and incidentally the relationship there with the Forestry Commission is that of working with more closely through NRW so the ties between sustainable and commercial are far more entwined.

Ian Tubby, could you comment on how we can do that?

**Ian Tubby:** Yes. As Nick Phillips said, at a UK level around 55% of woodland created in the last five years has been conifer, which will have a production focus.

Most conifer supply chains are certified by FSC or PFC, which are voluntary certification schemes demanded by customers and sawmills, timber processors and retailers. Straightaway, therefore, there is a voluntary scheme that helps to ensure that we create and manage our woodlands responsibly.

On top of that, we have the UK Forestry Standard, which is based on a series of internationally agreed criteria and indicators and dates back to the Rio Earth Summit of the 1990s. That standard ensures that any woodland created, broadleaf or conifer, must deliver a range of





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environmental, social and economic benefits. We are fairly confident that any woodland planted in the UK today will deliver some kind of environmental gain. So, yes, I do think there is a very important role for commercial forestry in reaching the 30,000-hectare target.

**Q14 Anna McMorrin:** There are concerns about for example planting on peat soils or priority habitats. How can you ensure that the increase in domestic production does not have an adverse impact?

**Ian Tubby:** It is very important not to revisit the 1970s practices of ploughing and planting peat soils and clearing ancient woodlands and conifer plantations being put in because they were more productive.

**Q15 Anna McMorrin:** Is that just up to a voluntary system?

**Ian Tubby:** No, that will not happen again because of the UK Forestry Standard and the regulatory framework that surrounds forestry in each of the devolved Administrations.

**Q16 Anna McMorrin:** Yet the Committee on Climate Change has published a recommendation that the UK Government develop a policy roadmap on the use of timber, suggesting that it does not exist or is not sufficient.

**Ian Tubby:** Does that roadmap set out the end use or is it about forest management?

**Anna McMorrin:** Sustainable wood supply, including domestic use and production.

**Ian Tubby:** I would argue that the UKFS and the regulatory framework do ensure that peatland, wading birds, water quality and soils are protected whether a woodland is planted with broadleaf or conifer. We can always do better and there are certainly things to be learned from the past but I think it highly unlikely, if not impossible, for us to see a return to the bad old days of the 70s and 80s and what happened then when we were planting timber for a strategic reserve.

**Anna McMorrin:** Nick Phillips, would you like to come in on that now?

**Nick Phillips:** I am not just saying this because Ian Tubby is next to me, but I think you can have the best regulations and policies in the world but if you don't have sufficient agency resources to deliver them, you can fail. We are going to be asking for more tree-cover expansion than we have seen for decades and for me that highlights the importance of the Forestry Commission. It is a relatively small agency and we are looking for a lot more in terms of delivery so I think that handholding for people who are perhaps not used to regulations is quite important.

There is voluntary certification, which is entirely up to a forester to buy into. It is positive and there is good coverage. Then there is the Government's UK Forestry Standard, which is a very big standard and on paper it is very good and contains lots of things you should do to make your forestry sustainable. The question marks I have about the standard



is that quite a lot of it just requires you to consider doing the right thing—for example, consider restoring as habitat—but if you don't want to, you do not have to and there is very little evidence that it is being followed on the ground. Most of the focus is on how it is being implemented on paper and there is a bit of a disconnect. About 60% of England is supposedly meeting this standard. We have another study looking at what is actually going on in those woodlands and only 7% of native woodlands are in good condition. Both conifer and broadleaf woodlands are severely lacking in deadwood, open space, old trees, a variety of tree species. I think the UK Forest Standard is a positive tool but only if we have a sufficient handhold to deliver it.

Q17 **Anna McMorrin:** What needs to happen?

**Nick Phillips:** I think we need more focus on management, policy and restoration of our habitats. The standard itself could be tightened up and most importantly, we should not count success until we have monitored what is happening on the ground.

Q18 **Anna McMorrin:** Do we need specific targets for timber production for nature/climate purposes?

**Nick Phillips:** I think that is absolutely critical. Quite often the focus is on how many trees we have planted or how many hectares we have created and that can be a mask. You can do it in a way that doesn't deliver for timber, for people or for nature and I think it would be so much more powerful to have those hectare and tree numbers underpinned by how much timber production we need. We need to be planting more.

Q19 **Anna McMorrin:** Is that a specific recommendation for us?

**Nick Phillips:** It would be a gamechanger because it would totally change the policy discussion. It poses a very different question from how you deliver X thousand hectares—you target it to the cheapest land, away from people and don't worry about the size of the plantations. If you have a production target it goes to a very different policy toolkit.

Q20 **Anna McMorrin:** What areas of the UK offer the most potential? Do any specific areas offer the most potential for planting commercial timber with the proviso that it would be sustainable?

**Nick Phillips:** A lot depends on opportunity costs. For a landowner to decide to invest in plantation forestry, productive forestry, they need to make the decision on whether it will be economically viable. Some of that will be based on perceptions and some on reality. Land prices will be quite important and at the moment that would probably mean that we would be likely to see more productive plantations in the north of England rather than the south. We are already seeing a significant amount of planting in Scotland but I would like to see a broad spread.

**Anna McMorrin:** In Scotland there are questions about how well the



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planting works for nature and climate.

**Nick Phillips:** Yes, that is a critical point.

**Anna McMorrin:** There might be lots of planting but is it the right sort of planting and is it in the right places.

**Nick Phillips:** There is a horrible statistic, which has not really changed much, that 50% of woodland wildlife is in decline and that is despite our almost doubling tree cover. There is something going on under the tin there. I want to be really clear though. I think productive forests can be extremely good for biodiversity but they do not replace the need for native woods and trees. We have lots of different objectives for tree cover but unfortunately there is no one type so we will need a variety of different types of cover and that includes productive plantations, native woodlands and agriforestry. It would be a shame if we just end up pitting them against each other. We can't do that.

The point you made is so critical. Get those targets right and I think everything else will follow. If we just have a big number, I am not sure the right outputs will happen.

**Ian Tubby:** I agree with a lot of what Nick Phillips just said and the point about the proportion of woodland in good ecological condition, which is very low at the moment. But you need to remember that half of that woodland is less than 100 years old. It is very young woodland that has not had time to develop veteran trees and deadwood and there are also problems with invasive species and lots of other problems but some of these features take decades and centuries to develop and forestry—

**Anna McMorrin:** Improved management can help.

**Ian Tubby:** Absolutely. If we are talking about sustainable management and production long term, we must not neglect the existing broadleaf resources out there. There are some wins to be had around perhaps increasing the use of hardwood in composite wood products. If that market gets going we can bring habitat management back into native woodlands as well.

As for where to plant—the right tree in the right place is absolutely right—we are doing some work at the moment trying to understand the area of land out there that could be planted while avoiding wading birds, deep peat, grade I and grade II agricultural land. We think there are probably about 3 million hectares in England alone where creating woodland would not have any negative impact on those sensitive land types and would be very likely to result in environmental gain whether we plant conifer or broadleaf.

**Anna McMorrin:** Do you want to come in, Mr Goodall?

**Stuart Goodall:** Yes, on the point about biodiversity and productive forestry. You mentioned Scotland, where there has been a lot of



productive planting. It is very important to base policy decision making on evidence and a lot of the policy decisions that have been made lack supporting evidence, particularly in England. A lot of policy that is driven by whoever has the loudest voice or whichever carries more weight. I would contend that very little of the delivery of planting in the last 30 years has been based on evidence and on that point I am very supportive of Nick Phillips's point that there is a danger that we look at hectares and numbers of trees rather than what we are trying to achieve. We would say the same thing. It would make things much better if we said we needed a certain amount of wood, we want to help certain protected species and those sorts of things and make that work. As the forestry sector, we would fully sign up to that and look to play our part but for me there is a key point about the forests that we plant. There are some perceptions based on the single-species forests that were planted last century on deep peat. That was the practice then. It was driven by government incentives and drivers and a lot of it happened on the public sector estate. We have somehow interpreted that as there being a big, bad industry out there that is just knocking on the door, wanting to break its way through to go back to where we were, which was not what we were doing anyway. We signed up to the UK Forestry Standard. We signed up to our strong regulatory system. I totally agree with Nick Phillips that we want to have a strong Forestry Commission that is in a position to ensure that when we plant, it is truly sustainable. Within that, we have to say come back to the evidence. We have looked at the evidence we have—and I am happy to leave copies of this behind—which is quite limited but it is very clear that if you plant productive woodland against the UK Forestry Standard and you go through a strong regulatory process looking at environmental impacts before making any decisions, it will deliver significant biodiversity benefits, including key species and many others because we don't go and plant 100% conifer. We generally don't even plant 75%; it is usually about 50% to 60% at most of a variety of conifers and you have native woodland, open space, and areas managed for biodiversity and the rest. Those things can contribute alongside well-managed native woodland, which again we are very supportive of. There is a lot of agreement but we must make sure we pull the right threads through in the final report.

**Chair:** I am afraid we must move on. I know Andrew Carpenter wants to come in on that.

**Andrew Carpenter:** I want to make a very brief point, if I may. As end users of the timber, we would like to have an input into what trees are grown. My members would like to use more homegrown timber but at the moment it is not suitable for their needs.

**Chair:** That is an excellent lead into Jerome Mayhew's question.

Q21 **Jerome Mayhew:** First to Stuart Goodall, as the representative of the commercial forestry sector here, what do you think of the inventory action plan?



**Stuart Goodall:** First, and very quickly, we represent the forestry sector as a whole. The Woodland Trust is a member. The National Trust is a member. We are very broad in that what we want to see is well-managed forests of all types, native and foreign, and a variety of benefits.

I think what you are coming at is how strong the economic drivers, the economic component, are in the plan and the strategy. My answer is that on paper, it is better than other strategies we have had in England in the past. What I mean by that, and I will spell it out very quickly, is that over the last 30 years we have planted virtually no wood-producing forests of any type, conifer or broadleaf. In the last 10 years we have lost 30,000 hectares of our productive forest and only planted 1,000 or so hectares of new productive forest. We have a net negative situation in terms of previous strategies and delivery.

Q22 **Jerome Mayhew:** Can I bring in Mr Tubby from the Forestry Commission here?

There has been a very significant change in planting strategy by the FC over my adult lifetime. The out and out production of timber seems to have been taking more of a back seat with the Forestry Commission as a major supplier. Is that a result of government intervention or the decision of the Forestry Commission?

**Ian Tubby:** I think it is a result of several things. The bad practices we were talking about earlier, in the 70s and 80s, were probably not seen as bad practice at the time but as the evidence base has changed and more data are collected, where we should not be planting trees and also what type of trees we should be planting has become clear.

**Jerome Mayhew:** Even in say Thetford or Kielder, your replacement strategy has changed enormously. I have seen it on the ground.

**Ian Tubby:** Yes and part of that will be responding to the UKFS, the UK Forestry Standard and FSC certification. As those monocultures established in the 70s are felled and restructured, broadleaf and open-space elements will be put in and the conifer species might be diversified. Forestry England has forest design plans, quite often with very long time horizons. I live near Alice Holt where the forest design plan has a 200-year time horizon on it.

Q23 **Jerome Mayhew:** I hope the Chair will let me go slightly off topic here. A wood-like forest like Alice Holt is pretty small. You are a major producer of timber but a lot of your sites are economically pretty unviable, I would have thought, and Alice Holt would be one of those. Thetford has scale. Kielder has scale, just in England. Aren't we pretending that we are going to have all these wonderful new plantations, which are going to be productive for timber, when actually the economic reality is that if you want to create productive plantations, they have to be enormous?



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**Ian Tubby:** No, I don't think so because supply chains in the UK expect FSC certification and pretty good environmental credentials to back them up.

Q24 **Jerome Mayhew:** But you have big bits of kit that need scale. If you took a harvester to Alice Holt, it would take about five minutes, wouldn't it?

**Ian Tubby:** Blocks of fir are harvested periodically at Alice Holt and I think they are economically viable. Timber prices have doubled in the last 10 or 20 years and once the true value of timber is recognised in the prices, that makes it economically viable.

Q25 **Jerome Mayhew:** That is an interesting point. Does our strategy, our policy development, depend on the doubling of the price of timber so this is going to become a resource that becomes increasingly expensive as we build in the cost of biodiversity, small plots and shared space?

**Andrew Carpenter:** Can I come in quickly? I think we need to be careful because what we are doing at our end is trying to persuade the housebuilders to use timber frame rather than masonry. If prices double, you know what the answer is going to be.

**Jerome Mayhew:** This is exactly the issue.

**Andrew Carpenter:** We need to work as a whole supply chain here, right from government through to end users. It needs to be a complete strategy, end to end, if we want to make this increase work.

Q26 **Jerome Mayhew:** Am I the only person who sees tension here between asking our woodland plantations to do more than what they used to do? They used to be not biodiverse at all, have very poor quality land management and all sorts of bad things but they were good at producing large amounts of productive timber at a relatively low price.

**Stuart Goodall:** Can I speak on behalf of the members who are looking to deliver new planting and who want to use wood that comes from England? We are very proud of our ability to deliver both an economic and an environmental benefit from the forest that we have. We believe that through the species that we can work with, the fact that timber is being valued more and we have new means of encouraging planting, such as carbon and things like that, that it can be seen as a profitable activity that can bear the cost of delivering biodiversity benefits. It has been great in that because it is building internally the money to be able to continue management. I have talked about management a few times. If you do not have an income to pay for the management of something, it falls by the wayside.

We see that we have a very strong offer here in terms of economic, environmental and particularly biodiversity benefits. I have talked about strategy and delivery. The key thing is that planting is highly regulated, it is driven by grants—ultimately what we are doing is incentivising a



landowner not to undertake a farming activity, which is subsidised by the Government, and go into tree planting. If you offer them £500, just to quote a figure, to do one thing, and £50 to do something else, they will do the thing that gives them £500. If we offer them £500 and say we are not interested in wood production, or, "If you want to do wood production, we will give you £50", they will not do wood production. That is basically what has been happening. We have not had delivery of a policy that delivers a range of outcomes. It has been narrowly focused with a limited budget on very specific outcomes.

Q27 **Jerome Mayhew:** That brings me neatly to the England Woodland Creation grant and similar subsidies. Is that the right mechanism to support productive forestry?

**Stuart Goodall:** We think the mechanism and the finance available is good enough. I think there are two things we lack to make sure that we have expanded planting and balanced planting, because we are not looking to push out native woodlands, we want more native woodland planting, as well as mixed productive and native planting. There are two things. One is basically political leadership. North of the border we have seen an increase in planting and that is because the Government recognise that productive planting is important, and businesses have said that they see that as a signal.

Q28 **Jerome Mayhew:** But predominantly softwood?

**Stuart Goodall:** Our market is overwhelmingly based on softwood and that is where we are competitive, but the key thing is that businesses gear up to deliver it because they know the Government want it. In England that strategy has not been borne out in practice. If you are a business in England, it is interesting trying to encourage a landowner to plant. I will go to my members and say, "Can we plant a native woodland because I think I have a chance of getting that approved? If you want to plant a productive woodland, we think the chances of getting that approved are very low."

Q29 **Jerome Mayhew:** On the point of owner consent, it is a widely held view by landowners that if you allow an area of land to be passed over to forestry that is it; you can never get it back into any other form of production or use. I understand why we have reached the stage where we think every woodland is precious, and in many ways they are, but does that not hold the whole sector back, that it is a one-way street or it seems to be a one-way street? Would FC permissions or forestry management plans that allow them to come out of production at the end of a productive cycle help people to take that step?

**Stuart Goodall:** It would help in some circumstances. I would not say it was a thing that blocks planting across the board, because in Scotland there is significant planting expansion of all types of woodland. It is about 50-50 in practice between productive and native and it is happening on that same permanency basis. There is certainly a question in the minds of



some farming communities that if they have better-quality land then it is a one-way street. There is a difference between looking at a long-term forest, because that is where the biodiversity benefits come from, that is where the long-term investment benefits come from. A single rotation of planting takes you closer to farming and it is interesting from their perspective, but it then undermines the delivery of the wider benefits that I think we all buy into as quality forestry.

**Q30 Jerome Mayhew:** Would you all agree with that? You mentioned Scotland several times as a comparator to what has happened in England. They have had much higher planting rates although overwhelmingly in softwood than the rest of the UK. What do you put that down to? Are you going to quote the Mackinnon report back at me? I know the FC is devolved, but you have a very close relationship with FC Scotland.

**Ian Tubby:** Absolutely. Part of it is down to the political advocacy that we have seen for a number of years in Scotland. I really do think that has made a very big difference to rates of planting north of the border. It is certainly a lesson for us to learn in England.

**Q31 Jerome Mayhew:** Obviously Scotland has a tiny population compared to its geographical size. There is a lot of space, a lot of low-grade agricultural land. I am assuming those are the overwhelming arguments, but do you think there is a political argument?

**Ian Tubby:** I think so, yes. Land values do come into it, and population density, but as mentioned earlier on we think there are around 3 million hectares of land where tree planting is a good thing and will deliver environmental benefit. There is space for the production side of things and space for managing—

**Q32 Jerome Mayhew:** Three million hectares in England?

**Ian Tubby:** In England, yes, so the space is there. If we have clear and consistent messaging, landowners will respond to that.

**Q33 Jerome Mayhew:** Just a final follow-up and then I am done. On your 3 million hectares, we have a UK food strategy, we have huge amounts of pressure on every hectare that we have, and we want to build more houses and become more food independent. We are at 62% self-sufficient at the moment and we want to get up to about 74% or 75%. We have to do biomass. There is a ton of stuff going on on the same hectare. Do your 3 million hectares sit in within the National Food Strategy, or are you taking over land that has been counted for food production elsewhere?

**Ian Tubby:** Most of that is agricultural land at the moment, but we think the food strategy is an excellent piece of work and we think that there is also space to plant more trees without having a detrimental impact on agricultural production and calorie production.





**Stuart Goodall:** Very quickly, if you can avoid trade-offs, life becomes a lot easier. What we are starting to see north of the border where planting has taken place, in productive forestry, is farmers, marginal sheep farming, for example, seeing two benefits. One is that it is making their farm more financially viable, which keeps them on the land and keeps them farming, and the other thing is your simple benefits, such as shelter. If you are on a windy hillside, freezing cold in winter, the sheep are there, you have low quality grass that requires a lot of energy to keep going, if you create a woodland as a shelter belt, it can be productive, and the host biodiversity can be different species, ultimately it is also allowing that farmer to produce as much, if not more, food.

**Jerome Mayhew:** I think I am right in saying from memory that from Mr Dimbleby's food strategy that 25% of the farmed land produces 1% of the calories, so there may be room for two benefits.

Q34 **Duncan Baker:** I am particularly interested by this session, because I was the person who convinced the rest of the Committee to bring in the inquiry about the sustainability of the built environment—Andrew Carpenter is smiling so you will know about my ten-minute rule Bill, which was backed by most of the Committee at the time to regulate embodied carbon in the construction sector.

We know there are lots of challenges, so I am going to come to Ian from the Forestry Commission first to just set out the context of the supply of timber. Yes, my personal view is that we do want to get into a position very much where we can have far greater numbers of timber-constructed buildings for all the reasons that you know I am passionate about, but at the baseline the timber supply industry faces major challenges from pests, disease and climate change. With those three issues in mind, could you give the Committee a broad overview of how you see them as a threat to the commercial sector?

**Ian Tubby:** It is a big subject area and there are lots of different moving parts in it. The fundamentals are that we need to increase the genetic diversity in our woodlands. That is the fundamental thing that we need to do, and that means both making sure that we are using natural regeneration where that is appropriate of native woodlands, but also that we are perhaps looking to use alternative species, species and provenances of native species that are growing 2° or 3° south. We think that assisted migration of genetic material from, say, central France, could do very well in southern England and that genetic material from southern England could probably do very well in northern England and southern Scotland in years to come.

Looking at commercial forest resources, I think something like 58% is Sitka spruce, and a lot of our hardwood resource is oak. Ash is the second biggest component in England and the sad fact is we are going to lose most of that over the next few decades. We absolutely need to increase genetic diversity and the species that we rely on. We need perhaps to look at what was native here before the ice age, and we might



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need to look at more exotic species as well. That is what we are doing at the moment, working with Forest Research and investors to look at how some of the exotic species grow.

We need to be careful about where we get this genetic material from. The last thing we want to do is to import pests and diseases that compound the problems that we have, so the Government are developing the Plant Healthy Certification Scheme and all of the grants in England I think are now dependent on the requirement to get that funding.

We are also looking very carefully at what is happening in Europe. The Ips bark beetle outbreak has destroyed thousands, millions of cubic metres of timber in the Czech Republic and in Germany and we are getting incursions in southern England now as well on Norway spruce. The same pest has been seen in Sweden, where we get a lot of our wood from, and an awful lot of their forest is Norway spruce. These pests and diseases can be absolutely catastrophic to the supply chain. There are lots of moving parts but I think the take home message is more genetic variation in the forests that we have. The same fundamental applies to climate change adaptation as well, perhaps particularly with emphasis on assisted migration.

**Q35** **Duncan Baker:** Is there a public perception that climate change is the issue, but with some of the comments you have just now made pests and disease seems to be a far greater issue of immediate concern than even climate change?

**Ian Tubby:** I think the worry is the interaction of the two. The climate is changing and that stresses trees and changes the geographical distribution of the pests and diseases themselves. The interaction is more powerful than the individual parts.

**Nick Phillips:** Pests and diseases are the biggest threats for all woodland cover types. Prevention is far cheaper than a cure. When a pest or disease arrives, it is usually farmers, foresters, local authorities and landowners who have to pay for the damage. Ash dieback alone is going to cost the UK £15 billion and potentially lead to a loss of 80% of one of our most common native trees. This is why when we think about investment, we also need to invest at the front end including on skills and people to do the forestry work and also tree supply. We cannot let levels of delivery get out of track with the levels of trees we are growing. If we end up importing more trees than we are then we are going to be in a very difficult place. The current statistics are pretty scary. In England we planted about 2,200 hectares. About 1,500 hectares were felled due to disease, and that only captured a small amount that we are potentially losing. This is serious for timber production, for biodiversity and yes, we can restock some of these trees, but we are losing mature trees and that is investment for foresters, biodiversity, carbon, all the things we care about.



For me, prevention is far cheaper than a cure and that means strong biosecurity at the borders and continuing with the Government's investment and growing it in tree nurseries, more green jobs and preventing a huge disease and pest epidemic. It is a bit of a win-win.

**Q36** **Duncan Baker:** Yes, absolutely. When I was meeting constituents about this they were very interested in fast growing. Biosecurity is important but fast-growing, non-native trees could meet a demand that could very well explode if we manage to get a lot of the other issues sorted out. What are the examples of non-native species that could be safely grown here that would not be a risk to biosecurity and all the other issues you have mentioned? One that was mentioned to me quite heavily was paulownia. You are nodding, Ian.

**Ian Tubby:** We are well aware of some landowners and investors being very interested in paulownia and other exotic species. I think we need to investigate their potential in the UK. We need to monitor how they grow and what they do when they are planted at scale, and that is exactly what we are doing at the moment.

Looking ahead at what might happen with bioenergy, particularly with carbon capture and storage, could be a real gamechanger and demand lots of biomass very quickly. If that happens then I think we will need to look at some of those species, including paulownia, but we must only do that within the constraints or within a framework of research and monitoring so that we get an understanding of the impact on biodiversity, on hydrology, long-term soil fertility and so on.

A lot of the species that we use in forestry already are not native, but they perform well, and they can deliver biodiversity benefits as well, depending on their management.

**Stuart Goodall:** One very quick point: we are talking about non-natives, but we also have native trees that can be grown quickly. We refer to it as short rotation forestry, a rotation period of less than 20 years. That is the kind of thing that we could also be looking at, in particular because we are talking about reduced availability of wood in future, which will happen in about 20 to 25 years. Planting a fast-growing conifer that takes 30 to 35 years or a hardwood tree that takes 80 years to 120 years will not be the solution short term, but it gives us some ability, there is a palette that we could use; it is not just non-natives.

**Duncan Baker:** Nick, I think this had better be the last one or the Chair will start moving us along.

**Nick Phillips:** I want to quickly make the same point as Stuart. We have a broad diversity of non-native and native trees that have already been tested and there is a palette there we can use. There is a bit of a regulatory gap in terms of introducing new species. It is quite hard for the Forestry Commission to regulate that at the moment within the



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current powers they have so I do think there could be some more work done there.

We have a broad suite that we should be using and there is some evidence showing that diverse productive plantations can see productivity advantages if done in the right way so there could be a productivity advantage and a resilience advantage together.

**Duncan Baker:** Good. Well, I will finish off by saying, Ian, let us get cracking.

**Chair:** We are running a bit against the clock, so we have Caroline Lucas next and then Claudia Webbe.

Q37 **Caroline Lucas:** This is to Nick Phillips first and then Stuart Goodall, a question just to explore which commercial forestry practices offer the best potential to harness commercial opportunities and bring other environmental benefits. Where are the win-wins in all of this?

**Nick Phillips:** The system that seems to be showing evidentially as quite good for biodiversity is when you have a continuous cover of trees, which allows you to always have different age trees and open spaces rather than trees of all the same age and you just go in and clear-fell them all. There are some species that do need that habitat as well, but a larger proportion of biodiversity will benefit from moving towards what is known as continuous-cover forestry. It is something that the Government could support, forestry and the sector, to do more. Lots of people are already doing it really well and it is certainly can be beneficial.

It is one of those things, seeing the wood for the trees, but biodiversity is not against production. In a way it totally underpins it and the resilience to pests and diseases comes with diversity of species, the whole ecosystem. If we can improve both productive plantations, non-native and native in terms of their ecological condition that would be a win-win for both long-term productivity and also biodiversity. There is a bit of a sweet spot that can be supported.

**Caroline Lucas:** Stuart, do you agree with that?

**Stuart Goodall:** I am broadly in agreement. The important thing is that it is not an either/or situation. It is also very much about geographic location. Continuous cover forestry can work very well in lowland areas where you have the mixed species. If you are in an upland area, it does not work very well, because you do not have the ability to grow a wide range of species.

You must think about the species you are looking to support. I used to work for the Forestry Commission and we developed the UK Woodland Assurance Standard, the certification standard for the UK. There is a lot of pressure to say, "Let's move away from larger areas being felled to very small areas." Within 18 months I had a major NGO coming to me to say, "Can we reverse that because nightjar and woodlark require open



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spaces?” and we have birds of prey that benefit and flock to areas of larger woodland, productively managed, where there are large areas being opened, because that is where they feed and survive.

There is a danger in fashions and fads, a little bit of information or evidence presented that says, “This looks really good” and then we follow it, and what we have not done is work through to say what are the impacts and where is it appropriate and work on an evidence basis. My view is that we should be led by the evidence, but there is definitely some opportunity.

**Q38 Caroline Lucas:** Ian, how could increasing the UK’s productive forestry help to meet carbon sequestration goals?

**Ian Tubby:** Planting trees in the right place is a potentially very cost-effective way of sequestering carbon and if you take those products through to construction, then that carbon remains locked up for a very long time.

If you are displacing fossil fuel energy that is also a very good use of the biomass. I absolutely think that forestry will continue to play a role in meeting net zero. It will be very interesting to see what happens with bioenergy and carbon capture and storage. I think as we get closer to 2050 the prospect of carbon-negative energy production based on sustainable biomass growth will become increasingly attractive. Even without that speculation, simply increasing terrestrial and soil carbon stocks by planting a mix of species on the right soil types will give us good carbon reduction benefits quite quickly.

**Q39 Caroline Lucas:** On that point of mixed species, can I come back to Stuart Goodall and ask to what extent can mixed planting of broadleaf and conifer support timber production and biodiversity? Does that simply underline what you have already said?

**Stuart Goodall:** What we have is the opportunity for slower growing native trees, which may not be managed for wood production but could be, to sequester more and more carbon within that area of land itself. If you measure the carbon in the land, it becomes higher and higher for many years, hundreds of years but that can be complemented by faster growing trees that lock up carbon more quickly, especially if we can take that carbon from the harvested tree and lock it away. If we can lock it away for something like a house, if we can start to put it into products that displace steel, brick, carbon, we get a double carbon benefit. The calculations are very clear and supported by all the evidence that we have seen. We want to have both the strategies in place and we need to follow that through. My plea is that in an English context we are not delivering any of these things. We are fundamentally failing to deliver planting, native woodland, mixed productive woodland and we are going to fail on our net zero because a significant component sits with our planting. The Committee on Climate Change is talking about 50,000 hectares a year from the 2030s already. I feel we will see that figure go



higher. We must fundamentally change delivery and if we can, we can lock up carbon, we can benefit farming, we can benefit biodiversity and we can have win-wins across the board, and it is not happening.

Q40 **Caroline Lucas:** Coming back to Nick Phillips, I know we touched on the UK Forestry Standard earlier in our session but to what extent do you think it helps support the achievement specifically of these multiple benefits?

**Nick Phillips:** It is an important standard and on paper it is strong. Coming back to a point earlier, I cannot emphasise enough how important it is to have government taking the role of handholding and supporting foresters, farmers, to basically meet the standard. The UKFS is a big thing, 200-odd pages, and it is quite detailed and there is not a lot of evidence that it is necessarily being followed on the ground. The standard is good. The difficulty is in how it is adopted and for me that means more capacity in the Forestry Commission to effectively give that support and where necessary it might mean regulating where things are not compliant with it.

Q41 **Caroline Lucas:** Ian, specifically what improvements would you like to see resulting from the ongoing review of that standard?

**Ian Tubby:** I think the standard remains fundamentally sound. A few points in it need to be addressed. One of those is about the proportion of a single species that can be planted and there is a consultation going out to industry and forestry stakeholders at the moment. I am fairly confident that compliance with UKFS is high in woodland creation schemes, because part of the grant procedure means that the applicant must demonstrate that compliance while the forest is planned and while it is planted.

What I am less certain about is the level of compliance in existing woodlands, particularly when we are trying to address ash dieback and some of these other issues and where the window for forest operations is generally late winter, early spring, when the soil is wet and is vulnerable to compaction and so on. That is something we are trying to address and get a better understanding of in England at the moment. We do not want to bash contractors and foresters over the head saying, "You are not doing a good enough job." We need to get a better understanding of what the operational risks are and then ensure that we have the right guidance or levels of support to enable the contractors and the owners—

Q42 **Caroline Lucas:** Is it a resource issue?

**Ian Tubby:** From our point of view at the moment part of it is that we need this dialogue with the agents and contractors to get a more formal understanding of how current practice is impacting forestry and how that fits with UKFS compliance. We carried out a similar exercise several years ago and found that compliance was generally high, but it is time to do it again, because market conditions have changed, pest and disease pressures have changed and working practice may also have changed.



**Stuart Goodall:** A quick point to build on what Nick was saying. The UK Forestry Standard has elements that are required and elements that are voluntary. There should be strong regulation for the required elements against that and we would not disagree with that at all. We would support that.

But what Nick is saying is important. What more could we be getting that could be seen as a societal benefit? If you look at other land-use sectors, Government rewards them through financial payments or we have a market mechanism to do that. That is the key thing. We are asking somebody who owns land who may be making a living from that land, to give up more and more of the income that they receive from that land and increase their costs through taking on voluntary mechanisms. If we construct as we have elsewhere market mechanisms or Government incentives, then more of that voluntary element will happen and we would be very supportive of that.

Q43 **Caroline Lucas:** Can you not just regulate them?

**Stuart Goodall:** To be very blunt, if you push up more and more cost and reduce the income, you will then make it uncommercial and the whole thing will fall over. This is about how hard you can squeeze the pips, to be honest and I would argue that the danger there is you start squeezing the pips so hard that you lose everything—unintended consequences.

Q44 **Claudia Webbe:** I want to ask a few more questions about timber in construction. Can you tell us a bit more about what progress is being made in the cross-government, cross-industry Timber in Construction working group and what progress it has made on the roadmap? Maybe I can start with Andrew Carpenter. What is progress has been made what action would you as a sector like government to take to increase the use of timber in construction?

**Andrew Carpenter:** We have met twice as a full working group. We started back in December. We had another meeting in June and we are due to meet again in December this year. Behind the scenes I have been working with my colleagues within the timber sector, with Dave Hopkins from TDUK, with your colleague, Stuart, Andy Leitch from Confor and also Helen Hewitt from the British Woodworking Federation. We are very aware that we need to provide a lot of evidence for the Committee to work on.

You will probably be aware that we are concentrating on six headings. We have talked a lot about timber and supply, so I will not talk too much about that. We are looking at the issue of carbon and the benefits that using more timber in construction will offer the net zero agenda. Importantly, we are looking at the building safety agenda. I have been saying for two years that we cannot have a net zero solution that is not safe, and we cannot have a building safety solution that is not net zero. These are the two biggest issues of our time. They need to be considered



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hand in hand and I am pleased to say that the Timber in Construction working group has acknowledged that and the objective is to safely use more timber in construction.

What we are doing behind the scenes now is looking at gaps in knowledge, particularly around fire safety, but also around water ingress and durability and we are getting ready as an inner group to present to the main group in December our findings on that.

We are looking at timber demand. I am pleased to say that more and more housebuilders are now turning their attention to timber frame. A lot of people like Barratts, for example, have bought one of my members, Countryside has bought one of my members. Others in Scotland and so on. Others have strategic relationships. There is a movement towards the major housebuilders using more and more timber frames, so there is no doubt that the demand is growing.

If I was a cynic, I would say it is not just going to net zero. It is also down to skills shortages and so on, but nevertheless that is the direction in travel.

There is one area that is often considered to be a challenge or a barrier, and that is around insurance and warranty providers and funders. There is a lot of emphasis being put into that area.

In terms of your bog-standard, two up, two down, there is no problem with insurance. The main areas of concern come around the mass timber, the CLT, Chair, that we were talking about earlier. That is where insurers are a little bit more nervous so we are aware that there needs to be more work done to bring the insurers with us to show them and give them the confidence that they can build 10, 12 stories in Hackney using CLT and so on.

The sixth area, which is a key area, is skills. If we are going to change the construction industry from predominantly brick and block to timber, there needs to be a transfer of skills. This is necessary right across the supply chain. I know we have touched on skills in the forestry side, but if you take it into my arena, you will have a range of professionals, architects, engineers, surveyors, who are not used to working in timber frame. You will have a range of erectors, installers and follow-on trades who are not used to working in timber. What we are doing behind the scenes as the STA at the moment as part of the working group, is talking to people such as RIBA and IStructE and we are going to offer them education, awareness and upskilling possibilities to smooth the path as we move from what is predominantly in England masonry construction to what we hope we are moving towards, which is timber frame.

Those are the six headings. In terms of what government can do, it is about leadership. As we increase the amount of timber in construction my members are going to have to invest significantly in their plant,





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machinery and so on. There needs to be consistent leadership to say that this is the direction of travel that we are moving in.

It is a shame that your colleague from Wales has gone because we are seeing an example of this in Wales. The Welsh Government have stated that they want from next year to use timber frame only in their social housing programme and that is an example of leadership and that has had a positive effect. I am working with them on that.

We have talked about incentives but my experience of 45 years in the construction industry is that it only changes, first if it is regulated or, secondly, if the client thinks it is a good idea. It is the carrot and stick. Again, it is a shame that Duncan is not here, but things like part Z, for example, on embodied carbon—that is the sort of regulation that will change the course of action. Things such as EPDs and—

**Q45 Chair:** I am going to interrupt you for a second, to pick up on that for a moment. You have not mentioned Grenfell, and it is obviously having a significant impact on both the potential for insurance challenge and the whole issue of how we build tall with timber. Can you comment on what you expect to come out of that and what can we do to encourage the Government to resolve the whole Grenfell challenge?

**Andrew Carpenter:** I did touch on it briefly, Chair, when I mentioned about the safety and net zero in the same breath. We were very pleased that the Building Safety Act did not say that you could not use structural timber up to 18 metres. What it does say is that you can use it up to 11 metres and between 11 and 18 you have to make the case. We were pleased that was the case.

We are continuing to work with the insurance industry, with the funders, with the warranty providers and part of the work that we are doing here is to acknowledge, do a matrix, of what we think is still needed. We have a gentleman by the name of Dominic Lion from Gallagher who is heading that little working group to acknowledge what gaps there still are in knowledge, where they need further testing. For example, we as a trade association and our members have spent about £500,000 in fire safety testing this year for CLT alone. It is ongoing.

**Chair:** Last question from you, Claudia.

**Q46 Claudia Webbe:** Okay. I have a few questions, but I want to bring Stuart Goodall in if I might on the roadmap and the strategy. Clearly in the previous report, Chair, we were recommending the strategy by the end of 2022, but it does not sound as if that is on track.

**Andrew Carpenter:** The new deadline is now spring 2023.

**Stuart Goodall:** There is definitely an issue of urgency, but also relevance to the domestic timber resource. We are very supportive of the timber in construction strategy and looking to create greater opportunities for the use of timber. What is key for us, and there is one



thing I would hope that you could take away, is that within the UK we produce a lot of timber that could go in to house building, especially timber-frame housing, but part of the challenge we have is overspecification. There is an overspecification on the structural grades, without getting into too much technical detail, which excludes domestically grown timber. If that overspecification was not there, there would be greater opportunity for the use of homegrown timber within that market. The ability to challenge that could be revolutionary.

**Q47 Claudia Webbe:** So we understand the scale of the challenge, what level of timber is currently produced in the UK and how much is produced from abroad and from where?

**Stuart Goodall:** There are different markets. You have sawn timber, panel board and engineered timber such as CLT and so on. We import about 65% to 70% of the sawn timber we consume. Not all of that goes into the construction market, but a higher percentage of that imported timber will go into the construction sector than the domestic product/

If we want to see more homegrown wood being used, the construction sector is where that can be achieved. We are reaching saturation points for other markets for sawn timber. That is where we can achieve the greatest benefit. We will never displace imports because of the scale of the challenge that we face, but we can make a difference.

**Q48 Claudia Webbe:** Is it right that the imports are something like 83%? Is that the scale that we are talking about?

**Stuart Goodall:** I do not have a figure for you which says how much hectareage we would need across the UK to meet all our domestic demands, never mind being able to produce all the right species, but it would basically completely undermine the food strategy before it got going. The key thing is that we are able to make significant inroads. One thing that we are doing, and this is maybe something that we can provide in the future, is looking at scenarios for if we increase planting by a certain amount. What will that provide in terms of wood supply which will enable us to match and displace imported timber? That starts to put some numbers on it. At the moment we know it would happen but we do not know if we did X it would deliver a Y outcome and that is something we are very keen to get a handle on.

**Chair:** I am afraid we are going to have to move on to the next panel. Thank you very much. Thank you to our panellists, Stuart Goodall, Andrew Carpenter, Nick Phillips and Ian Tubby. You are very welcome to stay on as now we now move directly to our second panel to talk about the sustainable biomass supply for the UK.

Witnesses: Dr Alan Knight, Professor Michael Norton and Professor Patricia Thornley.

Q49 **Chair:** We are now joined for our second panel. Perhaps as I introduce you, you could say what your interest is in the subject. Professor Patricia Thornley?

**Professor Thornley:** I am the Director of the Energy and Bioproducts Research Institute at Aston University, and I do a lot of life cycle assessment of the carbon foot printing and sustainability of international supply chains.

**Chair:** Dr Knight?

**Dr Knight:** I am the Group Director of Sustainability at Drax Group, which is a big user of biomass, but I have spent my entire career working on the interface between commerce and forestry. It was interesting to hear FSC being talked about. I was one of about 10 people who set up FSC from scratch back in the 1990s when I was at B&Q.

**Chair:** Professor Norton?

**Professor Norton:** Thank you very much for your kind invitation. I am the Environment Programme Director for EASAC. EASAC is a consortium of all 28 European science academies, which includes the Royal Society from the UK, and our role for 25 years has been to try to inform policymakers, particularly in Europe but also member states and former member states, of key scientific knowledge and insights that are relevant to policy issues. We have over the last six years done quite a lot of studies related to the use of bioenergy from forest-based feedstocks.

Q50 **Chair:** Thank you. This panel is focused on the existing demand for bioenergy products, in particular from wood and wood residues. I should declare that I have a biomass boiler, which heats my home, and I am a recipient of the Domestic Renewable Heat Incentive as a result.

As a Committee we have touched on one of the biggest consumers of biomass being Drax, here represented. One of your colleagues gave evidence to a previous inquiry on the potential for BECCS, which is where the biomass in Drax is used. I would like us to start by asking the academics here for your views on what you are looking for from the biomass strategy from the Government when this is eventually produced.

**Professor Thornley:** What I am looking for from the biomass strategy is some common sense.

We know where we need to get to in terms of net zero and we see a lot of modelling that claims that if we do the 30,000 hectares per annum and stuff like that we will get there. What I do not see a lot of is a reality check on who is going to plant this stuff, what is going to motivate them to do it, and what policy triggers we can use to encourage some of what



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you talked about in the last session, the right sort of planting in the right place.

For me, one of the big gaps is recognition of the carbon that is embodied in the feedstock but is being sequestered. You talked in the last session about the England Tree Action Plan. It barely mentions carbon. It is not a key criterion when we look at what we are asking people to plant.

I would like us to focus on what is important with realistic measures and I think that could move us forward significantly.

**Professor Norton:** I agree. Reality is the key word here and there is too much discussion in the policy field of BECCS in terms of generalities and oversimplifications that can lead policymakers to exactly the wrong conclusion.

There is no such thing as a biomass. Biomass is a generic term that can range from annual crops such as miscanthus through medium-term crops such as coppicing, to harvesting whole trees whose lifetime is measured in decades or in some forests even centuries. To label all these things into a biomass category and to say that if you burn these you can extract the carbon dioxide and put it into the North Sea and save the carbon or remove carbon from the atmosphere is a gross oversimplification. You need to focus on each individual case of feedstock, biomass feedstock, where it is harvested, how much emission you leak into the atmosphere on the way to getting it to the power station, the efficiency with which that CO<sub>2</sub> is captured and stored underground, and only when you examine the whole carbon balance across that whole lifecycle can you even say that there will be a negative emission, let alone when.

I see far too much simplification and generalisation involved in this debate and the bottom line is what will that investment in public money pay back in terms of climate deliverables? The climate deliverable in this is how much net CO<sub>2</sub> is going to be removed as a result of that investment, and when is that removal going to be achieved.

We may well be locking money into long-term feedstock such as forestry biomass which may not deliver any climate benefit for 50 or 60 years. If we are trying to count those against a 2050 target, there is quite clearly an incompatibility of timescales. We need to have what I would regard as due diligence before we invest public money in this technology.

The broad reports that we have written and others have written suggest that there needs to be a building up of experience. We cannot leap straight into the water on the basis of oversimplified assumptions. We need to build up some experience at small to medium scale, for instance using miscanthus in a local power station, and when we have learned from that we can scale up and try to deliver some net climate benefits.

Q51 **Chair:** At the moment the government schemes try to divide sources of feedstock into woody and non-woody. Are you calling for a separate



designation for each type of feedstock, and much broader?

**Professor Norton:** A lot of regulators have been trying to find out those guidelines with limited success over the last 15 years, since it became quite obvious that the original concept of bioenergy had drifted quite substantially to a totally different practice.

Yes, in terms of regulation you either have to require what I regard as due diligence in terms of validated carbon analysis that tells you the overall effect of the system, or that can get you into a lot of thorny technical issues because lifecycle analysis is still something that can be done by different people and come out with different results. There is often a lot of discussion about the boundaries that you need, so a lot in industry have been reluctant to sign on to that and some of the sustainability criteria development groups, such as the Roundtable on Sustainable Biomaterials, have also decided they cannot go for case-specific lifecycle analysis requirements. That has led them to generic classifications.

The ones that are emerging now in the European Parliament to say that we should not be burning primary woody biomass and the one that has come out of the Roundtable on Sustainable Biomaterials is to basically say that we should not be using round wood for bioenergy. By all means use genuine waste, genuine residues, sawmill residues, and they have a much different carbon footprint. There is a need for this differentiation between what the science says should be assumed to be non-beneficial or possibly even perverse, and those where there is a reasonable case they could be beneficial. Then there needs to be some due diligence on specific cases, specific proposals.

Q52 **Chair:** It seems quite difficult to define. Even if you use round logs as a definition, when thinning a plantation there may be very little value to round logs for other purposes than to become firewood or wood pellets. I like your expression "due diligence", provided it is detailed and is not subject to people like us trying to come up with a definition that does not fit what is happening on the ground.

**Professor Norton:** That is absolutely correct. The devil is always in the detail and for someone who owns a forest or a woodland, as I see round this table, you will know that every forest is different, and every distribution of tree sizes is different. To try to help that, there has been this concept of cascading. I am sure members have heard of the cascade principle, which basically says that we should give priority to the high value and high climate impact applications and we heard a lot of discussion about that in the previous section, trying to encourage more structural timber where the carbon is locked away for decades and possibly even centuries. I live in a house that was built in 1666 and the oak timber is still reasonably attractive. It still manages to fend off the deathwatch beetle every year. That is the image you are trying to get with the first stage in the cascade.



Then you go down to trying to make the most of what you have, through reuse and recycle. In this cascade that the Commission have been advocating, bioenergy comes just as the next<sup>1</sup> step, apart from discarding or landfill. The motive behind that is to try and lock as much carbon into the useful applications, rather than emit it straight to the atmosphere by trying to get some energy out of it.

**Q53 Chair:** I am going to bring in Dr Knight briefly because I think other colleagues will be talking more about Drax, but in relation to certification schemes for acceptable biomass supplies, do you think that the scheme that applies in the UK at the moment is fit for purpose?

**Dr Knight:** Yes, so if you think about what we have to do, there is a lot of alignment, as both my colleagues here were saying, because our current model is based on using the by-products of the timber industry. We are only going to forests that are being harvested for timber, and we have seen all the conversations about the value for that. With that alone you have the forest regulations in those regions. The UK has very tough regulations, but so does the USA and Canada, where we buy from. As you say with the cascade principle, we then take the sawdust, from 80% in Canada—it is just the sawdust from the sawmills, so we are true to the principle—we take the slash that nobody else can use and, yes, we use round wood, but it is the diseased, twisted wood and all that sort of stuff, which again nobody else can use. There is a lot of alignment between what you are saying and what we are doing and the scenario we currently create is one of the scenarios that I think you favour. We do not use whole trees to make it.

Your question was about certification. Because of that we have the regulations in the countries who control how their forests are harvested for timber. We then have the FSC model, we have PFC, so we have the voluntary certification schemes, which will be talked about. We then have our own scheme for the sector, which is the Sustainable Biomass Programme, and everything we buy comes under that scheme. Then the products arrive here and we have the requirements we need to do for Ofgem to show that we are using the right sort of material.

Of course over all of that we have our own sourcing policy, which says we only go into timber forests and we only use the material that the sawmillers cannot use, so multiple layers of certification and a lot of alignment between not clearing forests for biomass, but go into forests being harvested for timber and support that economy by taking materials nobody else can use.

**Chair:** I have just been informed we are expecting votes in the next 10 to 15 minutes, and they will go on for possibly up to three-quarters of an hour, so I am afraid we may have to suspend completely once the votes begin. I will ask Caroline Lucas to be as concise as possible with her questions.

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<sup>1</sup> Professor Norton has since clarified to the Committee that he meant to say 'last step'.



Q54 **Caroline Lucas:** To Dr Knight, in previous evidence to this Committee your colleague, Jason Shipstone, said that it was important that pellets sourced from primary forests are not used, but it has since been claimed that Drax has purchased logging licences for primary Canadian forest and used at least some round wood of sawmill quality from those areas to produce wood pellets for burning. How consistent is that with the evidence that Drax gave to this Committee last year?

**Dr Knight:** Very consistent. The issue with primary forests in British Columbia is they do not use that terminology. What they do is because they have vast forest estates the British Columbian Government have created their own classifications of forests, and those classifications are linked to First Nation requirements, environmental requirements, carbon stock requirements, biodiversity requirements, where the best timber lies. They have a very robust system of classifying which forests need to be protected, which is the vast majority of their forest estates and which bits they can offer for licences for timber.

We have acquired licences, but the policies I have talked about, about only using the materials that nobody else can use, has always been true. The reason why we have those licences is to do with the commercial aspects of how we secure that sawdust and that slash from those particular companies. It is a commercial process to help facilitate us to get access to the material that we use, but the good quality timber in those licences still ends up as building timber and furniture. That policy has not been compromised by that licence issue.

Q55 **Caroline Lucas:** It feels very confusing, because there seem to have been so many different narratives around what exactly Drax is doing out there. It feels now as if you are challenging the definition of what primary forests are. You will know that in the "Panorama" programme first it appeared that you said that Drax did not use logs from primary forest and then you later admitted that logs from the forest were used to make pellets, albeit you said that they would be burned anyway. It does feel as if each time we try to pin you down as to whether Drax is linked to pellets from primary forests, there seems to be a different answer and a different reason for what one might say looks like avoiding responsibility.

**Dr Knight:** The tension is the language of primary forests, which is not being used in British Columbia. British Columbia has very clear rules as to what forests are harvested, and they use all the criteria you would expect, the importance of biodiversity, First Nations, and they then decide which areas they are going to offer out for licences. Then we go in and we take the material, which nobody else wants.

Yes, we do use logs but as you acknowledge these are not logs suitable for timber. These are logs that are twisted and bent and hollow.

Q56 **Caroline Lucas:** I am quoting you. I am not acknowledging that. I am quoting what you have said. The trouble is there are so many different things on the record. In that "Panorama" programme, which you will be



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all too familiar with, first we had Drax telling the BBC it had not cut down the forests, having transferred logging licences to other companies. "Panorama" checked and the other authorities in British Columbia confirmed that Drax does still hold licences. Drax initially said it did not use the logs from the two sites "Panorama" identified, but later admitted that it did. Drax claimed it only uses logs that are small, twisted or rotten but the BBC found that only 11% of the logs delivered to the two Drax plants in the past year were classified as the lowest quality that cannot be used for wood products. That forest included primary forest, which has never previously been logged, and that is what most people would understand by the term "primary forest". Drax claims the forest was not primary forest because they were near roads. That was something I heard the Drax people say on the "Panorama" programme, but as you know the UN definition of primary forest does not mention proximity to roads and, indeed one of the sites is six miles from the nearest paved road. I put it to you again that it looks as if things are not quite as you are suggesting that they are.

**Chair:** Just before you answer, I am afraid a Division has been called.

**Caroline Lucas:** Can we just get that answer?

**Chair:** I am going to ask Dr Knight to give that answer, but we will then have to suspend, I am afraid.

**Dr Knight:** There were a lot of errors in that programme, like the 11% on round wood. We have openly said we use what is known as grade 4 which is timber which is not bought for timber and that 11% from the BBC did not acknowledge that. There were a lot of errors, and do not forget we also use 80% sawdust and in what they were talking about and the definition of primary forests, there were a lot of areas of misinterpretation, and we probably need to have a longer conversation but it is not as black and white as, "'Panorama' proved that you were wrong." We have very clear rebuttals against all of that and there were a lot of unfortunate errors in that programme.

**Chair:** I am terribly sorry to have to do this because I know this is something that we could talk about for some time. What I would like to do is to send you the questions that we were intending to ask to each of you. We have four or five votes to come so I would particularly like Professor Thornley to respond to this point, but I must ask you to do it in writing because we are not going to be able to resume within the next hour. If you are happy with that, we will send you some more questions and ask for your responses.