



HOUSE OF LORDS

Built Environment Committee

Corrected oral evidence: The impact of environmental regulations on development

Tuesday 13 June 2023

11.30 am

[Watch the meeting](#)

Members present: Lord Moylan (The Chair); Lord Berkeley; Lord Best; Lord Carrington of Fulham; Baroness Cohen of Pimlico; Baroness Eaton; Lord Faulkner of Worcester; Baroness Thornhill; Baroness Warwick of Undercliffe.

Evidence Session No. 14

Heard in Public

Questions 142 - 151

Witness

[I](#): Professor David Hill CBE, Chair, Environment Bank.

Examination of witness

Professor David Hill.

Q142 **The Chair:** Welcome to this evidence session of the Built Environment Committee as part of our inquiry into the impact of environmental regulations on development. Our witness at this session is Professor David Hill CBE, who chairs the Environment Bank. Please could Members and witnesses keep questions and answers fairly brief? Our first question is from Lady Cohen of Pimlico, who is joining us by Zoom.

Baroness Cohen of Pimlico: Welcome, Professor Hill. I have been immensely cheered by what I have read of the account of how the Environment Bank facilitates biodiversity net gain for developers and can provide additional income for landowners. I am not quite sure I have it clear in my mind, however. Could you describe it further and possibly with a typical example?

Professor David Hill: Yes, I can. To give you a tiny bit of history, I spent probably the best part of 20 years trying to design schemes that developers could use to mitigate the impacts of biodiversity. It really got nowhere, I have to say. By 2006, I decided that it was time to try to change and probably disrupt the system. I came up with the idea of biodiversity offsets and getting gains for nature from development, which led to the biodiversity net gain concept eventually being mandated into law. That was a great relief, I have to say.

Since that mandate—it has been critical in enabling the Environment Bank to do this—we have effectively raised a large amount of money to put into landholdings and raise the value of biodiversity, taking it from fairly poor-quality land to land of high biodiversity value. That uplift is transposed into a biometric—into what is called a BNG unit or a credit. We then sell those to the development sector.

We now have a large number of staff doing this and we have an initial 26 habitat banks scattered throughout England. Only England is doing this at the moment, but we hope that Wales and Scotland will come on board with it later on. Those 26 will become 180 sites within the next two or so years. We will probably go beyond that because the mandate has given real security to the investors that we have on board to put more money into the natural environment through this process.

We pay for all the costs of the creation for the landowner, farmer or landholder and then guarantee the payment for 30 years or underwrite the payment of its management for 30 years. That is what enables us to have the ownership on that credit that we can then sell to the developer, who needs it to now comply with the new law.

The Chair: If I understand it, this is a commercial operation?

Professor David Hill: It is entirely commercial.

The Chair: It is a commercial operation, so you do not acquire land by

way of ownership—you go to a landowner, perhaps a farmer, and you agree on a particular field that will be taken out of agricultural use. You provide the management services that will increase the biodiversity on that field by a measurable amount according to a certain metric. You translate this into a biodiversity unit, which then has a value.

A developer—who might be in a different part of the country, completely separate—who has an obligation to biodiversity net gain as part of a development but cannot deliver it on site can choose either to deliver it on site or to do something else, and one of the options available to them would be to purchase one of your units. Then they need never think about it again because it is all managed by you and guaranteed for 30 years.

Professor David Hill: That is exactly right. There are probably two points of clarification.

I was passionate that we did not buy land. I started off with the Environment Bank thinking that I could buy land and then realised that that was a bad idea because land rarely comes on the market and, if it does, it is often in the wrong place. I was passionate that the landholding sector gets a benefit from the revenue that can be generated by nature and natural capital. I did not really see it as right to go in and buy land and try to do it ourselves in that way.

The second thing is that spatial literacy is important. At the moment, we certainly could not offset an impact in, say, Cumbria with something in Bishop's Stortford. It has to have some proximity to where the development is taking place.

The Chair: Who says that?

Professor David Hill: Government. That is built within the metric. You could do it, but the costs become weighted in favour of doing it closer to where the development is taking place.

Q143 **The Chair:** I have one further question. The credibility of your operation depends entirely on the validation of your own assessment of the biodiversity net gain you have achieved and whether it has the value that you are claiming it has when the developer, in perfect innocence, buys your credit from you. How is that audited and checked? Who sets the standards? What is the framework within which that is done, or is it simply you doing it?

Professor David Hill: The metric is written by Defra. We helped with that process over a period of years. We know and we have advised Natural England—I know that it is looking at this—that there needs to be an accreditation or verification methodology in place. That is coming online.

I am also chair of an organisation called Plantlife. Independently, Plantlife is looking at being one of the accreditors for the system. I finish by October this year, so there are no conflicts for me personally.

I think it is critical that there is an independent accreditation. It is also important that we have some form of due diligence around the planning authority's duty, too. We have been talking to the Office for Environmental Protection to see how it might step into that role as well.

Because it is based on the metric, anyone can transparently disaggregate that metric and see how those figures are calculated. We have found that when developers come forward to us with their requirement for BNG units, we like to always recalculate to make sure that it is correct. Sometimes we find that they have asked for too many, but generally they have asked for too little. We put that back into the public domain as well.

The Chair: I will just see if Lady Cohen has any follow-ups because it was her question.

Q144 **Baroness Cohen of Pimlico:** I do. I find the whole scheme quite riveting. I have many cousins in the farming community. I am trying to decide what would make them feel they would rather get involved with what I may describe as your scheme instead of hanging on to the land, doing nothing to it and hoping it appreciates. All farmers have some rotten or not particularly productive land lying about. Have you any idea of how that decision process works?

Professor David Hill: It is a very good challenge. The issue is that you have to actively manage the land to generate the uplift. You could not, in our words or other people's words, rewild those sites to generate those units because you will never achieve the big uplift in the shortest period that you can.

The Chair: Gardening, not rewilding.

Professor David Hill: Well, sort of. Rewilding is good in some places, but what we are trying to do is to take large-scale land and put it back into nature so that it builds resilience for environmental change. That is basically what it will do.

The average size of our parcels of land at the moment is around 40 hectares, or 100 acres. These are quite large tracts of land and, as Lady Cohen said, these are sites that are certainly grade 3 or grade 4. We do not look at grade 1 and grade 2, for obvious reasons. It is grade 3 and grade 4, and very marginal in many cases. It is quite difficult for the landholder to be able to bring forward that land in a market to a developer directly. We find that there are difficulties with the individual sale. We do not operate as brokers either because we do not like that model. We want to underpin the actual cost and pay the landowner properly for delivering biodiversity.

Lord Berkeley: You do not own land. You agree with a farmer or someone and have that bit of land. Your contribution, in my simple terms, might be the added environmental value. Is that right?

Professor David Hill: It is certainly more than that, because we underpin it with a robust contract. If we are paying the farmer in many

cases a number of millions of pounds, we definitely want to see the delivery of it. We also insure against any liability risk to the landowner, because that has been a potential barrier. If it did go wrong for some reason—an act of God or whatever you want to call it—we insure against that happening. We take all the risk, and they can take the finances from it.

The Chair: You must have a large pot of risk capital because things could go badly wrong. On particular sites, there could be landslips or floods that could wipe out a lot of your work and so forth. You would bear all that. You would have money to step back in and recreate it all.

Professor David Hill: We believe that is important because there will be lots of people out there trying to do this. We identified 48 potential barriers to delivering this on the ground through process mapping, which enables you to look at where the issues are. It is clear to us and to our investors—Gresham House, a £6 billion private equity investor—that you have to have that level of finance behind you to enable you to take ownership and also to take ownership of the risk. The initial amount we have raised is about £220 million. We have, without giving away too many secrets, the idea of launching another £500 million, I hope, within the not too distant future.

I personally think that it is probably one of the best initiatives for conservation since the Wildlife and Countryside Act 1981. It is a game-changer, and it will not only leverage private sector investment for biodiversity net gain but give the opportunity to bring in the corporate sector in the future, which is exactly where we are going now.

Q145 **Lord Best:** This question is not just about your specialist bank. You say that biodiversity net gain will not cost the developer too much. It is 0.6% of the value on average. Of course, it goes up to about 3% at the top end. Never mind your bank for the moment—is it really true that the costs in all cases, or in a very large proportion of cases, can be easily absorbed, no doubt by renegotiating the price paid for the land?

I am doing something in Devon at the moment for the Devon Housing Commission. There are a lot of rural housing exception sites there: small sites on the edge of villages for a few bungalows or half a dozen homes. This biodiversity net gain is proving quite a problem. The site is small. The margins are very narrow because the land is more or less free. It is very cheap land from the landowner because it is an exceptional site, so there is not much to negotiate. It looks as if biodiversity net gain is tipping the balance from making something that would otherwise be viable into something that cannot be done at all.

Professor David Hill: I have to say that I would be incredibly surprised if that were the case. Having spent the best part of 30 years in the development sector, in almost all cases it is not a sector that is desperately challenged, to be honest. I think we just have to step up to the fact that biodiversity loss has been horrendous; it is an existential threat to us and we have to pay for it. Effectively, it is as simple as that.

Our evidence—at the moment we seem to be the only ones who have good evidence on this—is that for the people who are coming to us, the costs are certainly less than 1%. There will be individual situations where that will be higher, as you said. For the very small sites with very minor margins, it will push up to probably 3%.

What we also have to consider is that the BNG process affords the developer the opportunity to substantially reduce the costs of design and planning consultations. I spent a lot of the early part of my career charging developers huge fees, if I am honest, to try to get them a development scheme based on fiddling around with the biodiversity within the development site boundary, all to pretty much no avail. It took them many more months and years than it would have through a BNG system.

When you look at cost, it is not just the straightforward land cost and the cost of the BNG credits. It is to do with reducing time. One of the very interesting findings and one of the interesting points that we have found is that the developers coming to us are more interested in speed than price. We almost never get challenged on price.

The final thing is, as Lord Best said, that this is factored in as a deduct from the residual land values. I think people will be made more aware of that as we approach November. In fact, the developers know that that is exactly what they can do, and there are many things that hit the deductible value sheet.

Then you have to look at the percentage variation in the costs of doing a development. We can give many examples of developments we know of such as infrastructure where the costs have gone absolutely through the roof. Basically, you can capture the cost of BNG just in a small variation in your big spreadsheet that shows what it will cost. Personally, I think it is the right thing to do to require development to improve rather than degrade biodiversity.

There are all sorts of benefits: enabling better economic growth in the process and speeding up delivery times, funding the Government's ambition on nature recovery—I have made notes here—and crowding in significant additional private finance. On balance, all of those make it a very attractive policy. Yes, there will be one or two situations where the affordable housing units might need additional blended finance to enable them to be scaled.

Baroness Eaton: Are there big differences in costs in different parts of the country and different types of sites?

Professor David Hill: There are not huge differences. Interestingly, the south-east is more expensive to deliver because land pricing is more expensive. The landowning sector is weighing up what its options might be, with a view that there may be a huge natural capital market coming down the track. That may be the case, but in our situation we try to offer a really good option. Things that impact on the cost are geography—so

land prices are certainly a factor—and hydrology. If the development is, for example, likely to have an impact on a relatively poor wetland site—but still a wetlands site—to reciprocate and to recreate that is a much more expensive option; it can be three times the cost.

We have a number of those within the 146 examples I was able to give, but what I always feel is important to bear in mind is that probably 80% to 90%—in fact, closer to 90%—of the biodiversity net gain requirement is because the development is on fairly poor-quality grassland and poor-quality arable land to start with, and the costs therefore are relatively low. We will, I hope, never get developments on semi-natural habitat and certainly not on SSSIs unless it is mandated under a CPO or it is an infrastructure project that has to go ahead for socioeconomic reasons. Then the prices would go up. So, there is that variation.

Q146 Baroness Thornhill: I am fascinated by this, but I am struggling to get my head around it because it is very innovative and different. Within your evidence you were talking about a market perhaps developing within this that was not helpful. Is there a danger that the pricing of the biodiversity net gain credits could become unrelated to the benefits that they create as the BNG market grows? Could you explain why you think that, and how it could be addressed?

Professor David Hill: I definitely think that having a market is very important because the more players that are in this, the more value comes through to the development sector in price, irrespective of what I said about price not being the key picture for them. Developers will say it is, but in practice we know it is not.

Looking at how BNG credit price might scale, I think it is pretty unlikely. In fact, like many markets, as more options become available, pricing will become more competitive and it will probably start to go down, subject to all the variations around habitat types and locations within the country. I do not think biodiversity net gain credit price will increase in a completely unrelated way to what we are trying to create.

One of the reasons why is that we know how much it costs to create species-rich grasslands, wood meadows, woodlands and wetlands per hectare. We are pretty good at that now. You may well get some providers who undercharge for that—and there is then a real risk that the biodiversity net gain delivery will not happen—or massively overcharge. That is where a market is very important to deliver. I think that is certainly the view of Natural England and Defra, for that matter.

I am not sure if that allays your fears, but I do not think there is an issue of scaling pricing that is unrelated to what you will create in the first place.

Baroness Thornhill: Is it starting to happen? What are you seeing happening with the demand, who is on the field and investment in it? From the questions Lord Moylan asked you, it seems that a lot of money is required in the pot, so how do you see this developing?

Professor David Hill: The mandate was critical in enabling Gresham House to say, "This is a very important and interesting area". It invests in solar, renewables, many sustainable industries and sectors such as vertical farming. I think that having it mandated is critical. We are seeing one or two players coming into the market, but it requires this large-scale investment to get behind it. To be honest, there will be many who do not do that, but I feel passionate that that is the best way of doing it, because with any other way you end up risking the delivery.

For example, we are seeing one or two potential landowner farms coming forwards, but they cannot guarantee that the site will stay there for 30 years because they have sold credits for three years, two years or whatever it might be, or they can start to build out that site only when they have a certain level of money by selling. That is what I see as organic growth. We have decided to leap above the organic growth to set these places up, get them going and get all the biodiversity moving in the right direction. We do lots of monitoring and reporting, using things such as environmental DNA. We are backing up what we are saying with some very good technology that can show how to do it properly. I hope we are right.

Q147 **The Chair:** This is a crude question that will probably get only a very crude estimate as an answer, but I am trying to get some sense of scale. To follow Lady Thornhill's question, price is a function of supply and demand, so how much do you supply? Given your existing capital base, assuming the business was rolled out to the extent that it could be supported by that capital base before you raise new capital—so the £220 million or whatever—and you had all these sites and they were all being managed at this higher level of biodiversity, how many houses or homes would that be supporting roughly, very crudely?

Professor David Hill: I will have to do my mental maths on that one. We think that we will deliver at least 2,000 hectares, and maybe even 4,000 hectares, by the end of this year. If I multiply that by 48 houses per hectare, that is probably 200,000 homes or something like that—just in homes; that is in houses. However, having said that, there is a big caveat. It is interesting that few people have drilled down into this, but if you imagine that around 10,000 hectares of land gets developed in the UK, when you apply the metric to the number of credits you think will be required, it is no more than 4,000 hectares or probably less—probably 3,000 hectares. So, we probably—

The Chair: A year?

Professor David Hill: Yes, a year. By the end of this year, we probably could be delivering 60% of that demand, subject to us having places exactly where people need them, and we will not have those up and running by then. We are not talking about tens of thousands of hectares every year that will be required for BNG. When you look at the—

The Chair: What are we talking about?

Professor David Hill: We are talking about an area of probably 3,000 to 4,000 hectares a year.

The Chair: The Government's target—whatever credence we give to it—is 300,000 new homes a year. Let us assume that that is a correct assessment of what the country needs: it needs 300,000 homes a year, every year, for the foreseeable future. I know this very crude, but how many hectares of land have to be available for a scheme to support that?

Professor David Hill: I need to go away and do the calculation, but the average density of housebuilding is around 48 units per hectare. So, if we divide 300,000 by 50, say, that is 6,000 hectares, if I am right. Of that, you probably want 2,000 hectares to 3,000 hectares of BNG, but it is not the panacea that farmers and landowners are thinking. That is good in one respect, coming on to the point about food security, because it is pretty minimal. What is more significant is the corporate sector, which obviously we do not have time to go into now, but the two are interlinked. The beauty of having BNG is that it has stimulated this immediate mandated market for natural capital, and we can then do that for nature.

The Chair: I understand that; you have said that. What I am trying to get a grip on is, first, how much your business contributes to meeting housing demand. Are you supporting 1% of housing demand, or 10%?

Professor David Hill: A greater and more significant number than that.

The Chair: Give me a figure.

Professor David Hill: Some 2,000 hectares of BNG probably relates to 6,000 hectares of developed land, which is 300,000 houses. That is what it looks like, but I will need to come back to you on some of the figures. I may have missed a zero off somewhere.

The Chair: It would be very helpful if you did.

Professor David Hill: I can do that, yes.

Q148 **The Chair:** The other thing I am trying to find out is not to do with your company but with the sector as a whole. If you were building 300,000 homes a year, very roughly, how much land would you need to bring it within the scope of this managed biodiversity?

Professor David Hill: If it is 300,000 homes at, say, 50 units per hectare, it is about 6,000 hectares—if I am right in my maths—which fits nicely with what we were saying about 10,000 hectares of the UK. Of course, this is all development: infrastructure, commercial warehousing, distribution sheds, airports and ports—all of that is included within those 10,000 hectares. If you said that ultimately 6,000 hectares is for housing, I think that would require something in the order of around 2,000 hectares for biodiversity net gain delivery.

The Chair: Would we need 2,000 hectares every year added to this

stock?

Professor David Hill: Yes, exactly.

Q149 **Lord Berkeley:** Following up from another question—you will come back to us on whether it is 6,000 hectares or 2,000 hectares—there is the question of food security and whether farmers would prefer to sell their land to you for BNG or continue to use it for food. We have heard evidence about some of the problems in the Wye Valley and chicken farms and everything else like that. You clearly prefer the offsite mitigation, which I can understand. I am not sure the Government prefer that. Do the Government prefer onsite mitigation? I think you have said that that is not very sensible. Where do you see this going?

Professor David Hill: That is a very good point. The food security point comes up and I think it is a very coarse-grained evaluation. People think the more land you have, the more food you can grow. I think—and it is not just me but organisations such as the Food, Farming and Countryside Commission that I sit on and the Sustainable Food Trust—that there is a huge amount of work being done on the fact that our whole food system is not working and functioning effectively.

Defra's own statistics in 2021 showed that 52% of all UK farms are failing to recover their costs. One of the reasons for that is because they are spending a fortune on agrichemicals: fertilisers, insecticides, fungicides and herbicides. What we are seeing is a decision by the sector to reduce input costs, which is where they can break into some form of profit. That is a good model. We have to see where it goes, but there is lots of advice on that at the moment. I think it is about the transition towards this regenerative agriculture or agroecological approaches to farming. At the moment we have a broad-brush, coarse approach to growing, for example, largely cereals.

Another important factor within the whole food system is that we are seeing a decline in meat consumption; we are going much more towards plant-based diets. If you imagine that 50% of the cereal acreage in this country goes towards feeding livestock that we then consume, you suddenly realise that your whole understanding of this food security story is much more complicated than is tripped out quite regularly.

Lord Berkeley: Let me come back very briefly on that. I understand where you are coming from: cut down on the fertiliser on the land and you do not pollute it so much. The answer is that that can become BNG land and we can import food that has been flooded with fertiliser from somewhere else in the world, but that is all right because we are all right. That is not—

Professor David Hill: No, I do not think that will happen. There may be some tiny sacrifice in yield, but you have to take the food security issue in terms of the balance of what food we are consuming. It is a very much more complex story than saying the more wheat we get, the happier we are because we have more food. It is not like that. We need more

horticulture and more vegetable and fruit growing. They are the things that we import from distant places. We should be doing it on our own land, in my view.

- Q150 **Lord Carrington of Fulham:** If I could take you away from your present activities at the Environment Bank and back to your time at Natural England, how good an organisation is it, in your view? Is it good at anticipating future trends and requirements for the environment, such as nutrient run-offs and biodiversity net gain? Is it an organisation focusing in the right way? We have heard some criticisms of it, I have to say. Is it anti-development, in your view, or is it pro-development—or, indeed, should it be anti-development or pro-development, or could it take a neutral stance and still be effective without upsetting everybody?

Professor David Hill: That is a very good challenge. My personal view is that it is an excellent organisation. That is not because I was part of it some years ago, but to this day. On whether it does everything correctly, no, it does not, but many of us do not anyway. When I was there, I set up the developer industry group, because years ago there definitely was—back in English Nature's day—a view of trying to prevent and stop development. That was modified a great deal through successive administrations. My view is that it has to be independent; it should be neither pro-development nor anti-development. I think that is where the organisation sits.

The one criticism I have is that it does not have the resource to enable it to get involved in a lot of the development that goes on out there if it is outside of a SSSI, a Special Area of Conservation or a Special Protection Area—those protected by the Birds and Habitats Directives. As I have said in the evidence, I think those were fundamentally important and quite straightforward to apply, but I would have liked to have seen much more involvement, as would the planning authorities. They often feel quite stranded when they are evaluating some of these development sites, where they have very little resource compared to a developer which has a lot of resource. I know because I have been on the side of looking at how to get more out of the development, which did not go down very well.

The Natural England position, I think, has always been fair, and to this day it is a very fair organisation. It is easy to criticise an organisation. It is one thing to say, "Look, we have to sort out this nutrient run-off and it might have an impact on a development or the food industry", but I think passionately that we have to address these ways of doing things, whether it is development or agriculture, which do not create such a massive impact. One of my hobby-horses, dare I say, is that agriculture creates £7 billion worth of environmental damage for the £2.5 billion or so it produces in food.

- Q151 **The Chair:** Why are the costs not being borne by the development industry—the housebuilders? Why is it people cannot—

Professor David Hill: The nutrient neutrality position—which we are thinking we will look at getting involved in with respect to biodiversity net gain—is a very good challenge. I do not know the figures on this, but if you think of a new housing scheme, what is it importing into waterways compared to a chicken farm, in that crude comparison? I would have much stronger regulation on that in the agricultural sector.

The Chair: Yes, but we do not have it now. What we have is a moratorium on development.

Professor David Hill: Agreed. I would definitely want to look at that because I think it is not fair, as it stands. We have had examples of some of the large housebuilders buying up whole farms and abandoning them so that they can claim nutrient neutrality—that has to be a short-stop position because it is not sustainable.

I think Natural England is looking at this in a lot of detail. It is not the thing I read about most every day, but I think it is one area. Generally, it does good. It could do a lot better if it had more resource, but I am not—

The Chair: Resourcing to Natural England is something that comes up all the time for us. It is principally, as I understand it, funded by the general taxpayer through the Government.

Professor David Hill: It is, yes.

The Chair: That is obviously inadequate and, because government funding is always inadequate, is likely to remain inadequate whatever regime we are under. How would you expand the revenue resources of Natural England in a way that does not conflict with its independent and authoritative position?

Professor David Hill: I absolutely think that BNG has done that because it has shown that you can leverage private sector investment into the natural environment by having a mandate, which Natural England was fully behind and supported right the way through, as did Defra, Defra officials and Ministers. They have all been very supportive about this, as far as I am concerned.

I would say we should do more of the same: look at markets that can be generated and do not believe that the Government have to do everything. I do not think that is necessarily the case. Within limits, let us see how the market can respond to challenges and put forward solutions, just in the same way as BNG. That is happening through corporate natural capital accounting, which we do not have time to go into, but my advice to Natural England is to get behind that and get a mandate on it. That would be a much bigger market than BNG.

The Chair: Thank you very much indeed for your time. We found that very valuable.