



Environmental Audit Committee

Oral evidence: Climate change adaption, HC 453 Wednesday 10 December 2014

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Written evidence from witnesses:

- [Town and Country Planning Association](#)
- [Sustainable Development Unit for NHS England And Public Health England](#)

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Members present: Joan Walley (Chair), Peter Aldous, Zac Goldsmith, Mark Lazarowicz, Caroline Lucas, Dr Matthew Offord, Mrs Caroline Spelman, Dr Alan Whitehead

Questions 138–188

Witnesses: **John Slaughter**, Director of External Affairs, Home Builders Federation, **Professor Paul Cosford**, Director for Health Protection and Medical Director, Public Health England, **Dr Hugh Ellis**, Head of Policy, Town and Country Planning Association, and **Paul Everall**, Chief Executive and Company Secretary, Local Authority Building Control gave evidence.

Q138 Chair: I apologise for keeping you waiting; we just had some urgent business to attend to.

I thank each of our witnesses for coming along this afternoon on what we think is going to be a very detailed look at adaptation issues. I appreciate that as there are four witnesses, it might not be that easy to make sure that everyone who wants to come in on certain issues can do so, so try to catch my eye, or that of whoever is asking individual questions, if you wish to pursue specific points.

In welcoming you to our session, I would like to ask if you would perhaps start off by highlighting the adaptation challenges in the areas that are of particular concern to you. I appreciate we have a far-ranging set of interests around the table. From my own point of view, when I read the report, I was very struck by the comments in it about the risks of building glasshouses, and that while we might concentrating on the cold at the moment, but we have to look at the implications of building design and so on for the summer. I would be grateful if you could just frame what issues of concern in the report, from your professional or organisational approach, we should be flagging up in terms of our scrutiny of this issue.

I do not know if you have a spokesperson among you, but why don't we start with the industry? Mr Slaughter.

John Slaughter: Thank you very much. Yes, I think the issue you just touched on, Chair, is quite a key one from our point of view. Personally I have been working, ever since the start of the policy, on the zero-carbon homes policy. I think everyone who has been involved in that is very aware that as we improve the standards of fabric efficiency for new buildings, we need to not lose sight of other aspects of building performance and living conditions within new buildings. Specifically, there is a potential concern about both overheating and air quality in terms of getting the standards right and balancing those elements in terms of design, so that is certainly one area.

The other area that the Committee has looked at from its past sessions, and from the report of the Climate Change Adaptation Sub-Committee, that is relevant is on flood risk, higher intensity rainfall events and other aspects of climate change, and how they may affect, over time, the requirements for build standards. Those are probably the two broad areas for us that we would focus on for today's purposes.

Q139 Chair: Further to what you have just said, yesterday or the day before the House discussed the Second Reading of the Infrastructure Bill, during which the issue of zero-carbon homes came up. There was a little bit of debate about the exemptions from the new standards for developments with fewer than 10 properties. Is that something that your organisation has lobbied for?

John Slaughter: Not specifically. To be honest, we did not specifically lobby for that. I think we have raised concerns about the impact of the policy on smaller companies, and that is for a particular practical reason: in practice, smaller companies live much more hand to mouth in terms of their supply of development land. They move on from one project to another, and they do not have a pipeline of forward land for development like large companies do. In practice, small companies are probably going to be hit first in terms of implementing higher standards.

Q140 Chair: But why should the future occupants of those properties be denied the opportunities to have the energy efficiency savings or whatever else it might be that would have been there?

John Slaughter: That is not necessarily what is being proposed. The consultation is still open at the moment. The Government launched that only fairly recently. They have put forward various options, and their preferred option is not to have variations in the energy efficiency standard, but—

Chair: Okay, we will leave out energy efficiency, but what about the other standards?

John Slaughter: The offsite mitigation is more where they are proposing there might be some flexibility. In that sense, if you went with the Government's preference, you would not be offering public homes of different standards of energy efficiency and fuel economy as such; it would be more about other aspects of the policy. I would stress it is a consultation and we have not responded yet. We are still seeking views from our members, so I do not yet have a firm position. It certainly was not a specific proposal in

which we said to the Government, “Why don’t you look at doing this?” It was something that came out of a wider discussion about the challenges for the industry.

Q141 Chair: Okay, I will move on to the Town and Country Planning Association.

Dr Ellis: Yes, thank you. I think the brief summary would be that the TCPA has spent about 20 years thinking about spatial planning, so that is what our expertise and evidence is focused on. We spent quite a lot of time through European projects trying to understand best practice across Europe and also trying to absorb the latest climate science. I think our evidence is quite strong. In some sense, I wish it had now been stronger. There is enormous dysfunction at every spatial scale in our response to adaptation, and we are absolutely clear that the nation is critically unprepared to deliver the kind of change that it needs going forward. The unpreparedness is certainly here now, but over the medium and long term, that is when it really does become critical, especially in terms of long-term spatial approaches and the idea that we are quite evidence-rich on climate change, but what we are not getting through planning is the actions that you would expect to see, particularly in the most vulnerable communities, to begin to think about critical factors on temperature going forward.

Finally, there are steps forward and steps backwards. Across north-west Europe, there is very progressive change happening in relation to adaptation, building standards and technology. There are certainly actions that have been taken in the past three years—permitted development is one of them—that have set us back on the journey of being able to deal with climate change. The strategic approaches to planning certainly set us back as well.

Q142 Chair: Just in terms of developments that you talk elsewhere in mainland Europe, what is the gap between where they are and where we are?

Dr Ellis: Stark. In terms of technology on building performance, for example, in Germany there is an embracement of new technology on building performance and energy input. In relation to adaptation, there is a much greater understanding in European cities about temperature and health, and extreme temperature events, perhaps because of the 2003 temperature event, and therefore they are implementing measures on green infrastructure in a much more forceful manner. Here the building standards review, for example, and measures through planning and the NPPF do not emphasise anything like enough the importance of green infrastructure and potential temperature change.

Q143 Chair: So in terms of that stark gap, is it something that is easily going to be breached? Are we going to overcome it, or are we just set on a different trajectory that is going to leave us miles behind?

Dr Ellis: We are certainly set on a trajectory at the moment that is going to leave us behind. It is certainly a gap that could easily be bridged, but we would need to set ourselves now on a very different trajectory, especially in relation to the governance and the strategy, as well as the culture and technology of how deal with climate change. My point, I suppose, is that there is no technological barrier out there to the kind of adaptation solutions that we need, and that then raises the question about why we are not implementing as fully as other European nations.

Q144 Chair: Thank you.

Mr Everall, building controls were mentioned just now. Where do these fit into all this?

Paul Everall: Perhaps the first point to make is that building regulations apply only when someone is carrying out building work, so they cannot be used in general to improve the existing building stock. They cover new buildings, or if people are voluntarily extending, building regulations will apply. Of the areas that building regulations currently address that are relevant to climate change, a part deals with structural stability, and there are requirements in that for wind loading and snow loading. If the evidence from climate change is that this country is going to get windier and there will be heavier depths of snow, the regulations can be changed to adjust for that. Flooding looks as if it is going to be a more prevalent issue in areas that have not been used to it in the past. Again, you can do things through the building regulations to require greater resistance to flooding.

Then there are other issues about heating and ventilation that need to be looked at together. There are growing fears, as I think you mentioned, of overheating in the summer, and that can be addressed through proper ventilation provisions. So that is another area where more work needs to be done to ensure that our houses do not overheat in summer and that there is proper ventilation. I think those are the principal areas of the regulations that are relevant to this debate.

Q145 Chair: Who should do that work? You said that is an area in which more work should be done. Who should be doing that work?

Paul Everall: The Government are responsible for what goes into the building regulations and are lobbied at all times by green bodies and the industry about what the regulations should be. The challenge for the Government—and as some of you know, I used to be a civil servant—is that before any new regulation can be introduced, there needs to be an impact assessment, so although a good case could be made on policy and social grounds for improving or strengthening the regulations, sometimes it is difficult to get the cost information to show that the benefits currently outweigh the disbenefits.

Q146 Chair: Perhaps I can move finally to public health. Presumably you are very much concerned with the precautionary principle and how that fits into how this agenda has been taken forward in terms of the resourcing for your agency.

Professor Cosford: There is certainly no shortage of evidence on the health impacts of climate change and the likely effects there. I think that the challenge for us is ensuring an adequate focus on the risks that are there from the health impacts in terms of extreme events—flooding, heat waves and so on—while at the same time not forgetting that cold weather kills far more people than heat waves do at the moment, and still will for some years to come. There is the impact of air pollution—on which you published some fabulous data, which I believe we provided for you earlier this week and we were delighted with your publication of—and also, of course, the potential changes in infectious diseases, although for this country those are probably less significant.

I think the real challenge for us is to have a public sense—

Chair: A policy framework.

Professor Cosford: A framework, perhaps, but a sense in which the way we design and build urban, and look after our rural communities and environments, is done in such a way that gains benefit to climate change and benefits to health. With things like active transport and how we put green space into our own environments, which has a benefit on mental health and physical activity, and reduces the urban heat island effect, for instance, there is plenty of evidence around them. It should be so core, but it just is not everywhere all the time.

Q147 Chair: Before we move on, may I just ask: are all these issues being flagged up? Are they being taken more seriously as a result of the Adaptation Sub-Committee's report, or are we a million miles away from giving them the priority that we should be giving?

Professor Cosford: I would say it is variable, if you want my straightforward opinion. I think we do pretty well in preparing for floods and in having flood plans, heat wave plans and cold weather plans. They are there; we have dealt with them; we can respond. They can be very difficult, as we saw last year, but in the end, we are used to it, and we sort of know what to do. I do not see the same focus on active transport, active travel, or how we design our built environment. So I think we are good at reacting to things that are urgent and happen very suddenly and quickly, but we are less good at getting that proactive planning in advance for the future.

John Slaughter: I wanted to mention during the course of today the work that has been done by the Zero Carbon Hub, which is an independent body bringing the industry and various other parties together. The Zero Carbon Hub is very seriously looking at issues on overheating and ventilation, for example. From the industry point of view, if you see such issues that are going to impinge on how we build in the future and the consumer experience of the future, you want to address them because we want to make sure that the industry is providing products that people will like and that will give a good quality of life. It is not in our long-term interests to ignore those factors, so we do take that seriously, and we are proactively working channels such as the Zero Carbon Hub to address them.

Paul Everall: The Government see the Zero Carbon Hub as being its principal adviser, not just on getting lower carbon, but on related issues such as ventilation and overheating. As John just said, at the present time the hub is investigating issues relating to overheating and ventilation, and if that work leads to recommendations that the building regulations need to be changed, that is one of the good things that will come out of the hub's work. It is a group that brings together house builders, product manufacturers and building control. All sectors of the industry sit around a table and try and get evidence.

There has been a recent study about the performance gap—why are our buildings not performing in practice as the architects and designers want them to do? That has revealed quite a big gap in performance. For the last 18 months, we have been looking at the reasons for that, and there are a whole host of reasons that are detailed in the report. The point I am making is that is a centre of expertise, if you like, that advises the Government on what changes might be made to the building regulations.

Q148 Chair: My colleague, Mark Lazarowicz, will come on to building regulations in a minute, but you mentioned performance and monitoring that when there are building standards, they are being applied satisfactorily for installations. That is an issue, is it?

Paul Everall: It is, yes. There are all sorts of reasons why buildings are not delivering. It may be that the calculations originally were inadequate, it may be that the builders have not built it in line with the design, it may be that insulation products that were recommended by the architect were not available when the builder needed them so he substituted materials—there is a whole host of reasons why.

John Slaughter: The hub produced a very useful summary in July that addresses this set of issues. That is publicly available, so the Committee will be able to study that if it is of interest.

Professor Cosford: I was just going to mention a slightly separate issue, which of course is to remember that the impacts of climate change, including the health impacts, are much greater on the most vulnerable people. For us as a public health agency, that is a particularly important issue. You see it, for instance, with vulnerable people who live in poorer housing and are more likely to be in urban heat islands—this is sort of three things coming together—and that makes them much more vulnerable than the general population. So there is, again, that issue of inequality here for us.

Q149 Mark Lazarowicz: On the work being done by the Zero Carbon Hub on possible changes to building regulations to deal with overheating and ventilation issues, is there a reasonable prospect—it may well be it is too early for you to say this—that you would expect some changes in regulations to come out of this work, or to be recommended as a result of it?

Paul Everall: I would indeed. The Government have already said that there will be more regulations by 2016 in order to get to their goals of near zero-carbon. I think a number of the political parties are subscribing to that. We are nowhere near near zero-carbon in the building regulations at the present time. There were changes made in 2013. I would expect that before the changes in 2015, which will come into force in 2016, to get to near zero-carbon homes. If this work on overheating and ventilation has thrown up things by then, that would be the time to make those changes as well—if more provision needs to be included for ventilation, for example.

John Slaughter: If I can just add briefly, we do not yet know the answers to exactly what those changes might be. Further research work and monitoring of new-build homes to the latest standards is probably required properly to understand the relationships. As I touched on earlier, this is a question of an integrated design approach, because the danger that we have potentially fallen into is that by focusing on thermal efficiency and driving those standards, we have not necessarily given the same focus to the relationship with other aspects of building performance and control. What we are trying to do is effectively to bring everything together in a sensible way, based on a proper evidence base, and we will see what that looks like.

Q150 Mark Lazarowicz: Well, that brings me to my next question. Clearly issues such as overheating and ventilation can be resolved by having more windows or whatever. Clearly, that would be a very incorrect or unfortunate way of approaching the issue, whereas the whole zero-carbon approach is obviously one that offers more prospects of wider progress. Those types of regulations will have to be more comprehensive and probably more extensive. Is the appetite in the industry, in public health and building control, and in government to bring forward those kinds of changes in the regulations? If the answer is yes, obviously I am delighted to hear that.

Paul Everall: Certainly the regulations have got much more complicated over the years. I can remember the days when the energy efficiency requirements just told builders how many inches of insulation to put in the walls. Now it is all very much reliant on calculations to know whether your building meets the requirements or not. That is one of the concerns of my members who are the building control teams in local authorities. As the regulations become more complicated, it becomes more challenging to ensure that there is compliance. What we always say when we are consulted by the Government on potential changes is that the regulations must be enforceable. People must know how to comply and we must have ways of checking it. That is my fear about regulations getting more and more complicated.

John Slaughter: There are potential ways of balancing that. One of the other things that we will be looking at is a better set of what we call construction details for the future—basically guidance to builders of all sizes that if you follow these construction details, you are likely to get pretty much the right results. That would certainly be very helpful from the industry's point of view, but I think it would also facilitate issues for building control. We want to come to intelligent solutions on this, and it is very much in our interests that we do. Yes, if we need to change the regulations, that is absolutely the right way to do it.

Paul Everall: That has given me a very good cue to say that in the past month we have put on our LABC website a whole host—250—of registered construction details, which are designed to allow particularly small and medium builders who do not have their own experts to get the thermal detailing right when walls and windows meet each other, and things of that sort. They can now be found free of charge on our website; apologies for the advertising plug.

Q151 Mark Lazarowicz: We have been talking about overheating and that was clearly a risk identified by the Adaptation Sub-Committee's recent report. It also identified in that report that we still do have a high level of cold-related mortality compared with other north-western European countries. Probably the further north you go in a country, to some extent, the more that problem can be seen. How can the different concerns of both cold and heat stresses be taken into account in the regulations and in developing the approach more generally on the issue of zero-carbon homes?

Paul Everall: They are conflicting requirements, but by increasing the fabric insulation and ensuring that the ventilation is right, you can do something with the building. You can also do things with planning in terms of trying to increase shade, and with how buildings are designed and located. I think that more can be done. There are inherent conflicts, but we have to work around them.

Q152 Mark Lazarowicz: Okay. My final question is specifically on the issue of the overheating of hospital wards, so it is probably more for Professor Cosford. I think that the report stated that 90% of hospital wards are vulnerable to overheating, so how could that be improved? Is it just a question of training for the design of new-build hospitals? How far can things be done in existing wards?

Professor Cosford: I cannot answer on behalf of the NHS or the Department of Health, so you may need more detail from elsewhere. I am aware of the 90% figure. I am also well aware that the majority of those wards will still be with us in many years' time, so the answer has to be through retrofitting. Interestingly, some of the evidence suggests that new

design of hospital wards can be more vulnerable to overheating than some of the old ones. We do not want to go back to the Nightingale wards, but they do appear to be slightly less vulnerable to overheating than the new ones. There is a building note that the Department of Health has put out through the NHS to support a better design and the way in which both existing and new build should be procured with a very strong focus on protecting against the impact of climate change and heating. There are a number of actions there, but we would have to ask the NHS and the Department to give you a more detailed note on that if you are after more detail.

Q153 Mark Lazarowicz: Very briefly, although it is not within your field, is that note applicable to existing wards in existing hospitals, or is it just for new-build ones?

Professor Cosford: My understanding is it is about planning for a resilient health care estate, so that would include the whole hospital site, but it also identifies the fact that a hospital does not exist in isolation from the rest of the health and social care facilities around it. It also alludes to how you plan not just on a hospital site, but more widely as well.

Q154 Chair: You said at the outset that you could not speak for NHS England.

Professor Cosford: Yes.

Chair: I am just wondering what the collaboration is in terms of who has responsibility for what NHS England does if there are messages here about specifications for construction and design of new hospitals, and there is not this engagement with Public Health England.

Professor Cosford: That is a direct relationship between the Department of Health and NHS England in terms of exactly the requirements there but, of course, we will give advice and support to—

Q155 Chair: Do they take any notice of that?

Professor Cosford: Yes. There is a very strong history in the NHS, I think, of moving towards a more sustainable approach. Of course, you have had a submission from the sustainable development unit, which we put in place some six or seven years ago within the NHS to start off with. I was instrumental as we set it up. Our vision at the time was to try to create the NHS as the most sustainable public body that you could imagine and that it would somehow then help to lead the way in the national culture around sustainability. I do not think we have quite got there yet, but we do have a sustainable development strategy that is signed up to both by Public Health England and NHS England. It was launched nine months or so ago. It has a number of different modules and looks at a whole range of things from how you design buildings and sort out waste problems, and what energy you use; to leadership for sustainability and how you create models of care that are more sustainable and lower carbon, and help to create a system that is more sustainable for the future. There is a lot of cross-collaboration between the NHS and Public Health England at that level. This morning we had a meeting of our sustainable development programme board, which is chaired by the person who chairs the NHS's sustainable development unit, and that is a joint body. There is a lot of joint work there and a lot of commitment, but it is not always easy, as you will know.

Q156 Caroline Lucas: I wanted to invite Dr Ellis to hazard an answer to his own question because he said very powerfully a few moments ago that there is an enormous dysfunction and that the nation is critically unprepared, and then made a comparison with other countries that are moving forward more quickly and purposefully. I wonder if you could reflect in particular on the role of public awareness in terms of whether that is missing—do you think that is missing?—and how big a role that plays in the fact that we are not sufficiently prepared.

Dr Ellis: I think it plays an enormous role because there is plainly a strong link between public awareness and political leadership. One of the characteristics of many other European nations is that action on climate change is seen as essentially a consensual activity, broadly speaking. It is seen as a strategic objective—one that is dealt with, if you like, non-ideologically and more scientifically. That is a marked feature and a difference between many of the European debates and what happens in this country. It is absolutely true that there has not been a consistent public message about climate change. We find that very puzzling because if this is the greatest threat we face as a society, when confronted by public health threats of other kinds and other public policy threats, we have been used to receiving very strong information about what they will mean. For example, there are messages that come out of climate change, particularly in relation to severe weather and to temperature, and also, for some places, in relation to a rise in sea levels, which we can now have some high confidence about. There are uncertainties, but we know where the trend is going. It seems, certainly for some particular communities, that we should be sending a strong message. What that then does, presumably, is to galvanise consensual political support for action. The cities that have done best in Europe have had a broad—not perfect but broad—consensus about a direction of travel both on carbon and mitigation, and critically on adaptation, and they are now reaping the rewards of that. That is partly because they can quantify very effectively what these measures do, for example in terms of cooling—we have that information—and, critically, in terms of economics. They understand that investment now is a critical way of saving money; indeed, for some parts of the east coast, saving communities, because we are at that level of threat. It is very curious, given that threat, that we are not involved in a more robust conversation with the public about the future.

Q157 Caroline Lucas: If we were to draw a conclusion from that in terms of what recommendation this Committee will be making to the Government, is it about the levels of finance that are going into communication strategies around this, or is it to do with consistency of message or issues of wider political leadership? Where do you think we should focus more of our attention?

Dr Ellis: It is a very hard question, isn't it? The issue, I suppose, is that before an external message can be given, there has to be an internally settled view about what the pathway is to deal with climate adaptation. That view—that pathway—will require changes around governance, resources and culture of all kinds, but there has to be a settled view internally before, I guess, you have a story to tell. The interesting thing about it is that at the local level communities really suffering the impacts of climate change are beginning to be extremely sophisticated in their views about what needs to happen, but that is not joined up. There is rather an enormous gap between those local problems and any sense of there being a national imperative to deal with them. I would say there simply are not the structures anymore to have that conversation in any kind of meaningful way because we

may have a national concern but the defining feature of the rest of north-west Europe is that they have a way of translating national actions through regional and subregional mechanisms into local actions. We do not have that framework.

Q158 Caroline Lucas: Are you thinking of a royal commission? Could you give us a sense of what you are thinking about in particular?

Dr Ellis: Absolutely. The Royal Commission on Environmental Pollution was a critical body that had a national view and an independent stance. The Committee on Climate Change is a fantastic organisation that needs more resources and, ultimately, is a scrutiny body. What we are interested in here is drawing together the very best evidence at the right geographic scale for the nation and then being able to identify the actions that flow from that. Extraordinarily for England, that is not happening. A royal commission would certainly be one way of doing it, but then you need changes, I think, to departmental relationships very strongly, and then you need changes to the political priority around that.

I have to say that in all my time I have never seen a public policy problem in need of such systemic transformation as the adaptation agenda. It was quite extraordinary to have the privilege of being for two days in Jersey—a small island with an economy dependent on certain financial arrangements. It recognises that its entire economic future is now dependent on being able to tell a story about economic resilience. Our nation is equally dependent on that, so the economic case for resilience is overwhelming. Those places that can make themselves resilient will prosper. Those places—and we have many—that cannot, unless we do something about it, are in a cycle of decline.

Q159 Caroline Lucas: Would you go as far as to say that the lack of a settled view is putting lives at risk?

Dr Ellis: There is no doubt about that. There is no scientific doubt about that, whether you would care to see that as being the immediate impacts of flooding, temperature and heat probably ultimately, and public health impacts of climate change. We have already seen those excess deaths in Europe and globally we can see them as well. The Royal Society report estimating economic costs of severe weather is compelling; it was published two weeks ago. It is very difficult to see why we are not setting ourselves on a pathway that is not about saying we know the answer to the question, but where the pathway and the narrative are taking us to 2100? Critically, it has to be 2100. No one is planning for anything beyond 15 years in their local plans, for example, which is all we have left spatially to deal with this issue. Any adaptation strategy that plans for less than 50 years is pointless; ideally it is 50 to 100. That is where the Dutch, for example, are in terms of their planning for flood risk.

Q160 Peter Aldous: You have me thinking, Dr Ellis. I come from and represent a constituency right on the east coast. If you live in Suffolk or Norfolk, right on the coast, boy are you aware of it. I do just wonder whether the awareness issue is something that is better done locally rather than nationally.

Dr Ellis: I think it is being done locally. That is the only awareness that there is at the moment. It is difficult. In some sense, there is an issue, I suppose, about some solidarity between communities because on the east coast—on your coast—you have tremendous vulnerabilities. If we cast our minds forward to a predicted sea level rise as a minimum of

80 to 90 cm by 2090, and probably one to two metres, standing on your coastline, as I often do, I reflect personally about exactly where that leaves us. This is not just in terms of flood risk and defence; the option is do we defend it, in which case we need to have started 10 years ago. That is the kind of infrastructure we need—Dutch-style infrastructure—but it seems to me that people think of national strategies as somehow being very Stalinist. In my mind—the Germans have a similar approach—it is about pragmatism. What we are doing is enabling communities to make effective responses by giving them effective national and subregional support. That does not imply an imposition; it implies a more intelligent and sophisticated conversation about the future. An individual district authority cannot possibly be expected to manage its future on the east coast alone, especially when the datasets and the geography work in different ways.

Q161 Mrs Spelman: I just wanted to come in on that. Obviously, I have an interest from the time that the Adaptation Sub-Committee report was published. In response to that, DEFRA set about developing the national adaptation plan, but a decision was made by the Government at the time to co-create that plan with other stakeholders rather than having a top-down approach of telling the other stakeholders what they needed to do in response to the evidence that the Sub-Committee report contained. What is your experience of the outworking of this national adaptation plan? Are you indicating that it has not got very far?

Dr Ellis: I would say this because I am a planner, so beware: the national adaptation programme is simply non-spatial. In other words, very simply, it does not tell us what goes where. Without that kind of prescription, local authorities find it very difficult for it to be helpful. It sets out very helpfully a programme of vulnerabilities and actions, and sectoral kinds of positions. What we really need on the Suffolk coast is a clear sense of what our overall national spatial approach would be. I will be specific about that. It is absolutely critical that we think about demographic change and housing in relation to long-term coastal change, and that process is not happening. I have yet to see a planning application for development be referenced against the national adaptation programme, and the reason for that is because its usefulness is strictly limited by its high level of generality. I am not saying as a document it is wrong, but there is a missing document that comes under it and the missing document has a map in it. The map says, “This is what England looks like by 2050 in relation to economic development, infrastructure, climate change and housing, and this is how the nation will develop.” That seems to me to be an absolutely baseline piece of pragmatic policymaking that the nation needs.

Q162 Chair: That is quite a damning statement, really, isn’t it?

Dr Ellis: It certainly is from a planning point of view, and I wish it was other, but I suppose in some sense the logic is that if you produce a strategy that does not tell people about, or give people an indication of, vulnerability at a specific level, how are policy makers at a local level expected to use it? What a district council on the Suffolk coast needs to know is how long it has, whether its coastline will be strategically defended, which is a national issue, and then what demographic change will take place.

Q163 Mrs Spelman: Just coming back on that, the Adaptation Sub-Committee report chose a matrix rather than a spatial formula. I am sympathetic to you; I am a geographer as well and I am fully versed in Christaller’s theory of spatial organisation. In this case, it was a decision by a group of scientists not to take the spatial approach but to use a matrix in order to try to stimulate the stakeholders into, I suppose, a cross-checking process of whether they would be

affected by any aspect of that matrix. It was rated high, medium, low, so you might be sitting in your district authority and you are cross-checking against a matrix the likelihood of these events occurring according to the scientific evidence that the Committee has laid before you. I agree that maps can be useful, but I think there is some case, is there not, also for a matrix approach to this?

Dr Ellis: There absolutely is. It is not so much that the document is in some sense wrong; I am not suggesting that. It is just simply not enough, and the problem with that is that maps, of course, are very controversial. I think that that is what really lies behind our inertia.

Mrs Spelman: I think that is probably right.

Dr Ellis: I can say this because the TCPA is completely independent—

Chair: Yes, please, do say it.

Dr Ellis: —but if you draw a map, who loses? Who wins? Where do you withdraw from? The moment you begin to start indicating broadly, of course what people feel is that you are signing the death warrant for X or Y community which, of course, is not the intention, but could be the effect. The problem of not having that spatial bite is that very hard decisions—building scale upwards; district/neighbourhood decisions—then do not have a framework to inform them.

The surprising conclusion is that England has no plan. The NPPF is not a spatial document either. Where would you go to find a plan of what England will look like in 2050? It is very difficult to say, yet that is a crucial resource for all the local action that we need to take.

Chair: We will go back to Caroline Lucas.

Q164 Caroline Lucas: I am just absorbing all that. My next question was about what measures could get home owners to take either the risk of flooding or, indeed, the risk of hotter summers more seriously. In a sense, you have explained that there is a lack of a national context within which to try to answer that question, but I do not know if any of your colleagues might have some thoughts about what we could do to get home owners to understand those risks better and, therefore, hopefully put their own pressure on to get things changed.

John Slaughter: It is really difficult with existing home owners because you have the issues that you have with existing programmes—Green Deal is, I suppose, the obvious example. It is not necessarily easy to reach people and to influence their behaviour, which is why we often end up talking about new build and new development because it is an easier thing to engage with in a general way. It is really, really difficult. I totally agree with the points Hugh was making about public leadership. We absolutely need public political leadership on an issue like this. The industry probably could not do this without it in some ways, because then the industry is potentially having to take on a lot of risk in an uncertain environment and having the same kinds of issues as local authorities in a sense: where do you pitch yourself in relation to this if there is no overall plan and strategy?

We can certainly do what we can in terms of new build, and part of that is educating purchasers about the performance of their buildings and how to get the best results. We already faced that with high levels of fabric efficiency and the same issues will arise on the other issues we are talking about. You have to be quite careful not to induce any sense of public panic about issues. There is a tricky balance between raising awareness and showing leadership, and being able to broker solutions rather than just worry.

Q165 Caroline Lucas: What we have just been hearing about, to my mind at least, sounds so urgent that a bit of public panic might not go amiss.

John Slaughter: Of course, you need to engage people, but I think it is nevertheless a tricky balance because you do not want to overdo that. Then people would say, “Oh, it is just too difficult,” or, “We might as well not bother because it is all too scary and we just do not want to know about it.” Part of the trick with any of these issues perhaps comes back to what Hugh says about having a proper internal vision, first, of what you want to try to do, and then you can go out and communicate that you have both an awareness of the problem, and an understanding of how you can try to find solutions. It is probably problematic if you do not have that lined up.

Paul Everall: Local authorities could and should do more because I think that local authorities are still seen by many as a reputable source of information. There are two reasons. One is that the seriousness of this issue has not necessarily filtered down to local authorities, I guess for some of the reasons that Hugh has outlined. Secondly, the financial pressures on local authorities are such at the present time that even delivering their statutory services is proving challenging enough. I chair the community planning committee down in West Dorset where I live, and the real pressures on that authority are immense. The focus of the chief executive and the officers—and, indeed, the councillors—is how we can survive for the next few years delivering the statutory services, rather than worrying what might happen in 50 years’ time. I think a more coherent message from the Government, or preferably from the political parties collectively, might start to have more of an impact. One of the problems—I think Hugh alluded to this—is there is now quite a gap between what is decided at national level and the way to deliver it in local authorities. The days of regional councils and regional authorities have disappeared, and there is something of a vacuum.

Q166 Mrs Spelman: A decision was made by the present Government to release to local authorities the flood risk maps prepared by the Environment Agency so that they could see quite clearly, based on the best evidence available to Government agencies, how the local authority area was likely to be affected by flooding. Flooding, of course, is only one aspect of the risks that climate change poses, but none the less in this country, surrounded by sea and with many rivers, it is a very significant risk, as we have seen in the all-too-recent past. The decision to make those maps transparent was designed to prompt local authorities at least to factor into their local plans for housing, over a 30 to 40-year period, where to build and where not to build. Do you not see that happening?

Paul Everall: I may not be in the right place to see it, but personally I have not seen much of that happening. The whole process of preparing local plans is quite a long, drawn-out one, and I suspect that many of them have not yet got round to that. Even with things like the delivery of SuDS, there have been delays in DEFRA to help local authorities with that.

Mrs Spelman: We will come on to that, yes.

Professor Cosford: I was going to make two points. One is that I think there is a difference between raising public panic and raising a consistent sense of urgency about a situation. If you look at the evidence around large-scale change, which is what we are talking about here, there are a number of different frameworks for achieving large-scale change. The one that I often use in the health care setting is Kotter's eight steps to change, of which the first is raising a consistent sense of urgency that something must be done. Then there are a number of steps after that that you can look at around that. That was one point I wanted to make.

The second is about raising awareness. It is just reflecting on the fact that this comes down at one level to a very personal, local set of issues. I am thinking of an elderly lady in Jaywick on the Essex coast who I visited some years ago. Her accommodation was very poor and susceptible to flooding due to a lack of coastal defences, but there were some basic problems with the accommodation that could be ameliorated through local authority services. The person who noticed it was the diabetes specialist nurse who was visiting her, and I think one of the tricks that we try to work through the health and social care system is that vulnerable people are visited by a whole range of different people. If you can get it through your local service delivery—people thinking of the breadth of needs, not just the one thing that they are going to visit the individual for—you can begin to raise awareness. I am very keen on the idea that health visitors, specialist nurses and others will be able to flag people with accommodation problems or various other social issues that other services can help to meet. That I think can help here. Health and wellbeing boards and directors of public health in local government are ideally situated to do that. I am sure you will want to explore whether they are working or not, but they are ideally in the place to help to stimulate some of that joint work between health and social care public services.

Q167 Peter Aldous: My questions are very much focused on the national planning policy framework and the planning system. In the first instance, I am focusing on Dr Ellis, but we have covered one or two of these issues. In the TCPA submission, you identified I think five weaknesses in how the current planning system is set up to deal with adaptation. What key changes would you like to see from the Government to improve the system?

Dr Ellis: There are changes of different orders. We identified as the agenda, I think, the wrong geography over the wrong time scale with the wrong evidence with a lack of resources. Clearly, in reverse order, there is a very major problem in local government with planning resources and skills. We have lost a lot of expertise and the planning service has had its cuts. We do not represent planners, so that is not my issue; my issue is whether we have an effective service on the ground, and I think in relation to the climate change challenge, that is a problem. The time scale issue is a critical one.

Q168 Peter Aldous: Just on the skills, obviously the planning departments in local planning authorities are not what they used to be as far as the amount of resources. Did it used to have the skills? Were there actually the skills there to deal with climate change? Were they there historically, or is this—

Dr Ellis: The skills were largely located on climate change, with the new agenda at regional level and the datasets mostly at regional level. Of course, those datasets have been archived and the people obviously have gone. At the local level, the difficulty is that

certainly in one case, in what was the East Midlands region, one district rural authority has got down to one development planner—one qualified development planner—working on their spatial approach. When you reach that level of resource, there is no way you can have an effective strategy. I am not suggesting that we should have hordes of planners, but there are solutions. For example, and this is a radical one, the east coast has a commonality—Hull to the Thames. The Thames 2100 strategy plans for London quite effectively, but it is unique as a strategy. From Hull down to the Thames, that should be a single, specialised regional planning unit. Both the Scots and the Welsh in their new legislation can designate particular subject-specific areas to deal with specific regional problems. Think of the opportunity of being able to pool resources and expertise around particular coastal vulnerability by having a shared plan for that area. I think there are six or seven shoreline catchment management plans for the whole of that coastline, so the datasets will be more closely aligned with an effectively subregional approach. If we could find a new word for “region”, this would all seem like a very acceptable proposal.

Chair: A non-toxic word.

Dr Ellis: This follows a very European model, so things like the German Ruhr Valley Planning Association—all sorts of others. Again, it is seen as a very pragmatic idea. Of course, it would be democratically accountable through the authorities involved, which is critical, but that would be for the east coast.

The difficulty about climate change is we are now seeing severe weather and surface water flooding being much more unpredictable and west coast flooding problems, but there is absolutely no doubt that for the east coast it makes a lot of spatial sense to deal with it in that way. My question is: why do we not have a thought process about that designation? It seems almost impossible to have that conversation.

So, resources are critical, as are the right spatial scale and time scale. At the moment, the NPPF says some interesting things about climate change, and it does say that there is a need to plan over the long term. We cannot find a local plan planning for more than 15 years on the east coast at the moment. They will say they are thinking about climate change over a longer period of time, but the critical issue for planning is that they have a lot of data on impacts, and you cannot see any significant adaptation change happening. By that I mean significant changes in where housing is allocated in particular. That is the critical issue about resilience.

Q169 Chair: Can I, if I may, Peter, just butt in there? You talked about a different approach looking at perhaps river catchment areas or regional issues. Is that something that is going to be taken up, do you think, through the opportunity of looking at what has happened post the Scottish referendum debate?

Dr Ellis: Well, it is a big question, but federalism, I suppose, and this debate about how we govern, is an important one. Critically, it provides an opportunity to deal with climate change in a different way. Certainly, cities like Hull, which I know you have taken evidence from, would I am sure welcome an opportunity to make stronger and faster progress on dealing with adaptation. The answer, I think, is yes, but the difficulty at the moment is that climate change has not featured in that debate, so we need to make sure that there is a grown-up conversation about that.

Chair: Sorry, Peter, back to you.

Q170 Peter Aldous: One of the other issues you picked out was I think that you looked at risk methodologies and described them as being complex and inadequate. It has certainly been put to me by the risk management industry that you can achieve an awful lot by long-term planning and that as soon as you have the politicians wading about in their boots and the Army in there is when you have failed, as you should never be getting to that stage. Would you agree that risk management can help?

Dr Ellis: It certainly can and I agree entirely that when we see those emergency planning responses, that is clearly a distinctive sign of failure. The evidence suggested this. Small district councils are confronted with the 2002 climate impact assessment data, the 2009 assessment data and international data on climate change, and they are expected to do this job, which is quite extraordinary: first, pick your emission scenario—low, medium or high; then pick your vulnerability factors; and then pick your probability of a certain weather event happening. This is all in the context of a district authority with one development planner.

One outcome that we are so worried about, for example, is that districts on the east coast can pick different emission scenarios. How is that logical going forward? In fact, scientifically, we are going to be on or above the high emission scenario from the IPCC. We should simply be telling district authorities that that is what they should be planning for because that has a direct impact on the scale perhaps of sea level rise going forward based on the IPCC's latest data. Things like that to us seem so basic. Let us take some of the uncertainty out of the system by providing more prescription about how data and risk are managed.

The long-term issue is also that given all that data, it must make sense to build more resilient places and to move demographic distribution away from vulnerable coastlines. If the built environment has a duration of 100 to 200 to 250 years, beginning that process needs to start now.

Q171 Peter Aldous: If we look at the national planning policy framework, it has a chapter on climate change. Do you think in its existing form it is adequate and, if not, how would you like to improve it?

Dr Ellis: As we said, the NPPF is not a spatial document so it does not fully account for the fact that the coast of Suffolk and Norfolk is rather different from the Peak District. That is quite important in relation to climate change. You need more spatial-specific guidance. The issue in the NPPF is that flood risk is quite strongly dealt with, and then in the national planning guidance document you have quite a raft of guidance about flood risk.

There are two major problems that we see. The first is that many of the other impacts of climate change are dealt with extremely briefly: green infrastructure gets a sentence; temperature and how we respond to that—cooling, for example—really does not feature at all. There is a whole range of issues that the national framework is not picking up. The second issue is one of priorities, isn't it? It is clearly a priority—the TCPA would support this entirely—that we deliver the housing that this nation needs. That is a clear political priority and the signals for it could not be clearer, but there are parts of the NPPF that are

problematic and this is the difficulty about who is going to have to pay for these adaptation measures. In the NPPF, which at the moment is being used to strike down policy on some of these issues, at the moment we expect the private sector basically to fund our adaptation measures and new development. Ultimately, if the private sector cannot, we need to find another source of funding. What we cannot afford to do is not to take the adaptation measures in the built environment.

Q172 Peter Aldous: Finally, do any of the other witnesses have anything to add on those issues?

John Slaughter: Yes, if I may. I have listened with great interest to what Hugh has said and I think there is a lot of that with which I would personally agree. There is undoubtedly a big resource problem in the planning system at the moment, and frankly that concerns the industry in terms of just the delivery of everyday planning applications, quite apart from the question of the issues we are talking about today. I think it is a big challenge.

Again, it comes back in part to what we were discussing a few minutes ago: if the big picture vision and the strategic aspects of that, spatially and otherwise, are being properly communicated and made the centre of national policy direction, that will help local authorities. It certainly seems to me sensible that we have subregional approaches to solving these issues. We have made these points tangentially in relation to the housing standards review, where we talked about water stress and whether it is appropriate to have different levels of standard in different areas. Our view was, frankly, that that is not necessarily the best approach because if there are subregional issues, you ought to be looking at what the action is on a subregional basis, rather than on an individual district basis.

There is an awful lot that I would agree with there and the challenge for the private sector, as Hugh says, is that if you load too many things on to the private sector upfront at this stage, effectively expecting the private sector to deliver it, that will be a problem. It will affect housing delivery. It may mean that other priorities have to be cut back on. We have to be quite conscious of those interactions. My personal feeling is that in an area like this, it should be a consensual approach. We talked about that earlier as well. What the industry would want to do is to work with policy makers and planners to see what the best, practical, long-term approaches might be.

Professor Cosford: The only point I would add is that I would not consider planning for climate change separate from planning to improve health. The green spaces, the greening of the urban environment, the water spaces, the active transport and so on have an impact, and the more we think of them together, the better.

Q173 Peter Aldous: May I ask Mr Everall a question? In your knowledge of local authorities, have you seen any examples of local authorities breaking out of their individual silos and working with their neighbours following the sort of approach that Dr Ellis is recommending?

Paul Everall: Very much so, certainly in the building control field. It is something we actively encourage. For the same reason that some local authorities are down to one planner, some of them are down to one building control officer, and given the scope of the building regulations, it is very difficult for one person to have total expertise. Earlier this

year, we did publish a document on shared service working and one of the main drivers for LABC is to try to get local authorities to work together collectively so that you have a bigger pool of expertise. If a particularly large job comes into one authority, you can then borrow resources through that.

We have also introduced arrangements whereby many years ago we introduced requirements so that one authority could check the plans for others, and the authority where the building was being constructed would accept there was another authority to check the plans. This year we have introduced improvements for cross-boundary working so that if one local authority does not have the expertise to do the inspections, the neighbouring authority can do so. So I wholeheartedly agree with the thrust of your question.

Q174 Chair: I wanted to ask a very quick question arising out of what was said about planning officers. Do you think that institutional knowledge and memory is important? Given the number of redundancies that there are and the implications for the public service, are we losing a whole aspect of local knowledge that might well key into this debate that we cannot really replace? Is that an issue that is relevant to this?

Paul Everall: Do you want to deal with planning and I will deal with building control?

Dr Ellis: It is a very important question because it certainly strikes us that at a national level—this is the issue about whether geography is still important—we have not been good at geography for 30 to 40 years in this country in policy terms. With many of the solutions that you require for climate change and spatial planning, you have to look back at wartime experience and the aftermath of those issues and different arrangements and organisations of government. Almost all that institutional knowledge has been lost, so it does not exist at a local government level. You will find that, again, an awful lot of local knowledge has disappeared about individual places with smaller planning teams, and there are often younger planning teams, which is great, but there is the issue about experience. I think as a nation we have become less sentient, if you like. The collective understanding of solutions to the challenges that we face are simply not there.

Q175 Chair: I certainly find that as an MP of 28 years' standing there just is not that local knowledge in the way that there was. It is not handed on and handed on. Where is that stored and where is it kept, because it obviously has relevance. Can I ask one quick question also of Mr Slaughter? You mentioned this issue about zero-carbon homes and the exemptions. Is it really down to a question that you would not have the objections if the Government were finding the finance so that it was not going to be put to the doors of the individual builders who are building those homes? Is it simply a matter of finance, or is it a matter of principle and policy?

John Slaughter: Sorry, I am not quite sure I understand your question. Do you mean specifically in relation to the exemption or more generally on the policy? I can answer both. Finance is an issue classically because even now after a good period of time, innovation and experience, the cost of building to a zero-carbon standard is higher than not building to a zero-carbon standard. Classically, purchasers do not attach sufficient value to that to mean that you can recoup the additional cost in the marketplace. That has a viability impact and it is potentially more of a challenge to small companies for the reasons I was touching on earlier. Yes, if there was a way of subsidising that, it would

definitely help, but I should say it is not just about that. Important to today's discussion is the fact that, from the industry point of view, we also need to be delivering a product that works for the consumer. The reason we are interested in these issues about overheating, ventilation and so on is because we understand that if we do not get those right, we will not be providing a product for the future consumers that will meet their requirements, and it could lead to not only health problems but, potentially, dissatisfaction. I would not want to say it is just a cost issue. Even though that is significant, it is not the only consideration.

Q176 Mrs Spelman: You have already given us an indication of your views about the inadequacy of the national adaptation plan, but I think there are two things emerging from the evidence you are giving. One is about scale—the difficulty that smaller local authorities have in securing the expertise necessary to give expression to the adaptation plan at local level. Mr Everall indicated that one way round that is to share services, and I think we are beginning to see a bit of this happening from local economic partnerships dealing with it in a shared-service way. The other one is spatial and obviously there has been a decision not to enforce spatial configurations on local authorities. They are free to choose who they work with. Do you see there is a danger that some of the local authorities might combine well, secure the expertise and work spatially, in a way, supported by the evidence that they will face common threats from climate change, but that we might leave some behind? What do you think we should do about that?

Dr Ellis: I do think there is a danger and, for me and the TCPI, we are still asking this question. Why can we not approach it in what appears to be the logical spatial way? You identify the geography—in other words the east coast, very crudely—and you then begin to identify mechanisms that are essentially a stick-and-carrot event, which is to say from Government that they declare this is the right spatial area and then they ask local government to co-operate inside that area. It is very different to the regional planning approach, or at least substantially different.

There is a danger of places being left behind, particularly on expertise, and it is particularly and classically the small rural district that is being left behind in terms of resources. There is a lot of resource sharing going on in planning, but what is required is something more than that. It is not just about resource sharing; it is about planning at the right spatial scale, and I do not mean for everything. I am just talking about these issues most appropriate to climate change.

Now, to give you one dramatic example of that—at least I think it is a dramatic example—we are basically asking all districts on the east coast to consume their own housing need. We are saying, “Well, there is a housing need. There is a growth need. You need to then allocate enough housing to do that.” Quite right too, except that some of those places plainly need to think about districts inland to deal more effectively with that need; in other words, spatial change across borders.

A statistic that has troubled me is that one district was told by its 2010 coastal study that it should allocate only 900 houses, but by this year it had already allocated 1,356, and we are still seeing local authorities allocating housing in floodplains. That is an ongoing problem. The point is that the housing is needed. That is not the question. The issue is that you need the right spatial scale to say, “My neighbour now needs to accommodate my housing growth more resiliently.”

Paul Everall: The alternative danger to the one that you outline is that if we do not have shared-service working, nobody is going to be doing it. If shared-service working at least encourages some authorities to work together and tackle this issue, we are better off, in my view, than if no one does it.

Q177 Mrs Spelman: Yes, I follow that. Of course, the question about prevailing on your neighbour to build the houses, evidence-wise, is a vexed one, but there is a duty to co-operate without which your local plan is unlikely to be approved. So something is supposed to be in place to deal with that situation where you cannot accommodate the housing for very good reason, scientifically based, and you need to negotiate with your neighbours. To get sign-off on your local plan, you need the duty to co-operate, but it is not failsafe. I wonder if we could focus on one specific thing that Mr Everall has raised, which is about sustainable urban drainage systems. You made a rather tantalising, glancing reference to this not working very well. I wonder if you would like to take this opportunity to expand a bit on that.

Paul Everall: It is a challenging concept and one that most people would think is sensible. If you can do the drainage through soft means and the water drains away in a manageable way, that must be better than it bouncing off hard surfaces and flooding other people, but it does require certain things to happen. You need a certain amount of space to be able to do sustainable urban drainage. It might affect the number of houses you can put on a site. It might affect the building footprint and such things, so there are practical issues. I am not an expert on SuDS by any means, but I think DEFRA and local authorities have taken longer to implement this policy than was originally intended.

Q178 Mrs Spelman: Why do you think that is the case?

Paul Everall: Failure to reach agreement between the various parties as to what should be done; differences perhaps even between Government Departments.

Q179 Mrs Spelman: Because of the cost?

Paul Everall: That could be a factor, yes.

Q180 Mrs Spelman: Thank you for that. Just one other thing: do you have a view about the capacity of local authorities to enforce the climate adaptation measures we are talking about? Let us assume we have a local authority that has the expertise in the planning department to make the right requirement on the house builder to build in a certain way. What is your view about its ability to enforce those adaptation measures? Is the national policy planning framework a strong enough framework for them to insist?

Paul Everall: Yes. The planning system and the building control system, as I am sure you know, are entirely separate, and enforcement of the two sets of regulations is different. I do have concerns about whether enough resource is being devoted into ensuring compliance with the building regulations. I will leave you to deal with the planning issues. It comes back to what I was saying earlier about the squeeze on resources generally in the local authorities and whether it is in the public interest to start taking people to the magistrates court to be able to do this.

The other thing is that, as I said earlier, the parts of the regulation that deal with climate change—like Part L, Energy Efficiency—are much more complicated and it is quite difficult to produce, as I understand it, a case that will stand up in the courts when

someone has blatantly failed to deliver the requirements. If a building falls down, or if fire breaks out and it is clear there were not adequate fire protection measures, it is rather easier to take those issues to court than someone saying, “Well, my building only delivers 50% of the energy efficiency that was promised.” It would be very challenging for a local authority to win a case in the magistrates court in that regard.

Q181 Mrs Spelman: But what about, theoretically, a home that was built on a floodplain that the planning authority deemed, with adaptations, could be made sustainable, but is then flooded out?

Paul Everall: If there was more in the building regulations than there is at present to require buildings to be flood resistant, so that the water does not go through the brickwork or through the masonry, then if there was—

Q182 Chair: Are you saying that the building regulations should be amended?

Mrs Spelman: Could be amended.

Paul Everall: Could be amended, yes. Then enforcement could take place in the normal way. If it was not in the building regulations, there is nothing that building control could do to enforce it. It is possible that someone could take action against the planning authority for ever having allowed housing there in the first place but, again, I am certainly not an expert on planning law.

John Slaughter: I think the way the general planning policy works at the moment is you have to do a flood risk assessment and, for the most part, I think the Adaptation Sub-Committee’s report said that, for large-scale applications, which I think is anything above 10 units for planning purposes, that system is working pretty well. We certainly do not have any practical evidence of there being a lot of problems with new development in recent years in terms of flood risk.

There is the dilemma, which we have touched on, that there are some parts of the country where, if you are going meet future housing and other development requirements, you may have to do that in the context of a degree of flood risk that is not ideal, and then the question of resilience and potential changes in standards could come in. In principle, we would not be averse to looking at optional standards for resilience for areas where, to balance things out, that is where you had to go. We have sort of opened the door on optional standards in building regulations as a result of the housing standards review. We would probably be quite pragmatic in circumstances where you had to take on a degree of risk. If there something more you could do for resilience that was sensible, why not look at those options?

Q183 Peter Aldous: Just very quickly—I am looking at Mr Slaughter and Dr Ellis—the planning profession is very much focused on the challenges that climate change adaptation provides. If we look at the architectural profession and the engineering profession—and generalisations are dangerous—do they regard this as an opportunity and a challenge where they can come up with some innovative solutions to your members’ challenges, Mr Slaughter, or do they regard this as, “This is something we do not want to be involved in and we do not want to hear at all”?

John Slaughter: I think they do see it as an opportunity in a positive way, but that is not to say there are not issues. If you were to read the report I held up earlier from Zero Carbon Hub, it would say that the professions have issues to deal with in terms of their understanding and skills in relation to design in this field, and the interactions between different aspects of design. I think the willingness and spirit is definitely there, but there are some issues about knowledge and skills that we probably have to tackle.

Q184 Dr Whitehead: We have heard some evidence and some discussion this afternoon about the whole question of how health and social care policy would generally be affected by the need to consider adaptations, but overall we might say that the spending on health and social care is lower in the UK than some other north-western European countries. Is there a resource issue as far as health and social care spending is concerned, in terms of coming to grips with any of these adaptation issues, or is it a question of perhaps realigning what we do?

Professor Cosford: That is a tricky one in the whole context of health and social care spending, isn't it? As a public health service, and as colleagues in the NHS, we are used to having to cut our cloth some way or another to meet spending restrictions and still deliver the services that we have to deliver. I think the latter is the only way we can think about it. I cannot get my head into thinking, "If only I had x millions more money, I could do x, y and z." Well, I can think that, but that is not the framework we are in. It is about getting people thinking in the right way about prioritising adaptation.

Q185 Dr Whitehead: With that in mind, what areas might you think would need extra resources and, conversely, what areas might need least?

Professor Cosford: I think the critical issue is not to think of the separate parts of the health and social care system in isolation. There is some important work to do on hospital buildings, transport to hospitals and so on. However, the real gains will be made not only in doing that, but in thinking about the whole pathway of care, people being supported at home, people being supported in different settings, the mix of health and social care, and the work across those two, to get those ways of caring for people. Particularly as we are moving to more and more frail older people, we have to think differently about how health care is provided, and I think the five-year forward view gives an opportunity for that. Again, I cannot speak on behalf of the NHS and I cannot speak on behalf of local government, but I can give my view and that would be my view. There is a lot that we can do on an infrastructure side, but we have to think more broadly than just carrying on doing what we are doing more sustainably and think about different ways of delivering care.

Q186 Dr Whitehead: In that context, you have suggested in your submission that you doubt that health and wellbeing boards understand the implications of climate change. Is that because, in your view, they do not think it is anything to do with them, or they do think it is something to do with them but they have not thought through the implications or indeed the changes in practice that might be necessary?

Professor Cosford: Health and wellbeing boards are variable bodies, aren't they? They take different approaches and we have given examples of some in the submission where they do work on this issue and they understand this issue, but my broad, high-level concept is: how do you create a healthy, sustainable community? What does a healthy, sustainable community look like? What does it mean? What are the geographical elements of it? What are the social elements of it? How do people fit together in that? That is where

I think a health and wellbeing board should have a strong focus. We are doing some work to try to support that through the sustainable development programme in one way, but we also have programmes of work on healthy sustainable places and healthy people living in healthy places.

We are developing those programmes of work and they go back to the sorts of things we have talked about in terms of physical activity, active transport, opportunities for social mixing and control of traffic, because people living on busy streets have less social interaction, more exposure to air pollution and less physical activity, so all those things fit together in the creation of healthy, sustainable communities. That would be my broad concept.

You then have to get into the specifics, and the specifics have to be developed locally. We can give some frameworks and the evidence behind that, but health and wellbeing boards need to bring that together. There is obviously a strong role for local government in bringing together that spatial planning, and thinking about how you develop the social cohesion of communities and resilient communities, as well as how you provide health and social care jointly within them. It is very broad, isn't it?

Q187 Dr Whitehead: I was about to say that. That appears to encompass what you might say is improvement in understanding.

Professor Cosford: I thought you were going to say motherhood and apple pie. Thank you that you didn't.

Dr Whitehead: Yes, motherhood and improvements in the understanding of apple pies, I guess. On the one hand you could say it is about understanding and getting better ways of working. You could say we need to have rather better guidance, clearer separation of responsibilities and better interaction between authorities on a pretty defined basis. I assume what you have just said encompasses both of those, but where would you put your emphasis?

Professor Cosford: If it is about local authorities working together across large geographical patches, I think it depends on the community and on the setting. Obviously across London we see a lot of working across local government. Certainly from where I sit, with directors of public health in London, they do a lot of work together on how they might take things through, and similarly in other large cities. We see it in the north-west as well, in the 10 authorities in Manchester. It tends to happen less in rural communities where the benefits might still be just as great, and I think the example of the east coast and climate change and flood risk is one, but there are other examples where rural communities working together across local authority boundaries could well learn together and do things jointly, too. I think it depends on the local geography and the local demography, but it has to be locally led. We need to provide evidence and frameworks, but I do think local leadership is critical in making that happen.

Q188 Dr Offord: The adaptation report notes a significant percentage of both emergency services and indeed care providers that are within the floodplain and, as such, would be susceptible to flooding at some point. How do you feel those impacts should be guarded against? Could those properties be flood-proofed, or would it be more likely in the event of

some kind of action that people, services and indeed equipment could be moved from those locations?

Chair: Who would like to answer this one?

Paul Everall: I think I mentioned in my written submission that there was a report produced seven years ago now, I think, for DCLG and DEFRA that looked at improving the flood performance of new buildings. That makes a comparison, or lists both what you might do to avoid buildings getting flooded in the first place, and then how to make them more easily repairable or recoverable if they do flood. I think there are some issues there that could usefully be looked at again. A number of the recommendations have not, as yet, been acted upon, so it may well be worth you as a Committee having a look at that report again.

Professor Cosford: There is a framework that I have in mind about flooding and it is the same framework in my mind about heat waves, cold weather effects and so on. It is the actions that you need to take to prevent it in the longer term, and preparation throughout the year—the adaptations you might need to make in the summer for cold weather, or in the winter for heat waves and so on. There are things that you need to do at a local level to be prepared and that we can do at a national level to be prepared, making sure that when something is predicted, we have the right guidance for people. If there are people whose homes it is known will be flooded in the next week, we can get guidance and support to them. We did a fair bit of that in the early part of last year, but our plans for cold weather and heat wave are the same. Then, of course, there is guidance on how you stay safe if your home is flooded and how you recover safely, such as by not using generators indoors because you will get the risk of carbon monoxide poisoning. We have all those bits of guidance. The bit about avoiding it has to be better, but that would be for others who could speak better about the building standards there.

Chair: I think we have come to the end of our questions. Unless anybody has anything else they wish to raise, may I thank each of you for coming along? I am sure we will take note of what you have said. Perhaps you will look at our final report and feel that you made some contribution to it, so thank you all very much indeed.