



Science and Technology Committee

Corrected oral evidence: The effects of artificial light and noise on human health

Tuesday 28 March 2023

10.15 am

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Members present: Baroness Brown of Cambridge (The Chair); Lord Borwick; Lord Holmes of Richmond; Lord Krebs; Lord Mitchell; Baroness Neville-Jones; Baroness Northover; Lord Rees of Ludlow; Lord Sharkey; Baroness Warwick of Undercliffe; Lord Wei; Lord Winston.

Evidence Session No. 5

Heard in Public

Questions 55 - 66

Witnesses

Stephen Turner, Immediate Past-President, Institute of Acoustics; Peter Rogers, Chair of the Parliamentary and Public Liaison Group, Institute of Acoustics; Paul McCullough, Member, Chartered Institute of Environmental Health; Somayya Yaqub, Member, Chartered Institute of Environmental Health.

USE OF THE TRANSCRIPT

This is a corrected transcript of evidence taken in public and webcast on www.parliamentlive.tv.

Examination of witnesses

Stephen Turner, Peter Rogers, Paul McCullough and Somayya Yaqub.

Q55 The Chair: We welcome our witnesses to the committee's fifth evidence session in its inquiry into the effects of artificial light and noise on human health. The panel today is focusing on noise. We welcome our witnesses, who are: Stephen Turner, the immediate past president of the Institute of Acoustics, who rather bizarrely is spending his birthday today giving evidence to a group of Peers; Peter Rogers, who is chair of the parliamentary and public liaison group at the Institute of Acoustics; and Paul McCullough and Somayya Yaqub, who are members of the Chartered Institute of Environmental Health.

The session is being broadcast on parliamentlive.tv, and a full transcript will be produced and made available to you shortly after the session to make any minor corrections. If you think of any evidence that would be useful to us or anything you did not get a chance to say today, we would be very happy to receive it in writing to our inquiry.

Could each of our panellists give two bullet points, first to tell us your key area of expertise and, secondly, to tell us how you have been involved in advising on designing or implementing noise policy?

Stephen Turner: Thank you. My key area of expertise is what is known as environmental noise—aircraft, transportation, construction noise and so on. I have been in this field for 45 years. I was a technical adviser for 15 years to the noise policy officials in Defra. For four years I was a civil servant. In that time, I helped to transpose the environmental noise directive and looked after the first two rounds of noise mapping and action planning. I also helped with the drafting of the Noise Policy Statement for England and the subsequent policies that have flowed from that.

Peter Rogers: Good morning. My background is in building acoustics and environmental acoustics. I have a degree in medical physics and physics. My expertise as a practitioner is in applying acoustics in all its forms, whether through the planning, licensing or regulatory regimes.

On policy, I have recently been involved with the Welsh Government guidance on the Well-being of Future Generations (Wales) Act, including soundscaping, in particular with the Environment (Air Quality and Soundscapes) (Wales) Bill currently before the Senedd. I have also given some advice on air source heat pumps and am looking into sound and well-being.

The Chair: Thank you. Hopefully we will hear a bit more on that as we go through the session today.

Paul McCullough: Good morning. I am a chartered environmental health practitioner. My specialism is in neighbourhood noise and planning. I have specialised in that field for 20 plus years. I have experience of being in the homes of people who are being actively disturbed by noise from

the environment. I have been involved in developing industry guidance along with the Chartered Institute of Environmental Health in relation to quarrying minerals noise and on the noise impacts of renewable energy, wind energy in particular. I am currently working on some guidance on dog barking and other neighbourhood noise issues.

Somayya Yaqub: Good morning. I am an environmental health practitioner with over 15 years of experience in the local authority environment. My main specialism is investigations of statutory noise nuisance. I have been involved in reviewing planning applications and attending the development consent order for the Tideway tunnel super sewer, Old Oak regeneration area, the Imperial Wharf redevelopment and Westfield London. I am also the co-author of the professional planning guidance, which sets out the principles of Good Acoustic Design. I sit on the Chartered Institute of Environmental Health's environmental protection panel. I also chair the environmental protection group for the Chartered Institute of Environmental Health, and I am a member of the Institute of Acoustics' environmental sound committee.

The Chair: Thank you. We come to perhaps more taxing questions.

Q56 **Lord Sharkey:** Some of the questions I will ask invite very short answers. If you consider the UK's policy response to the problem of noise pollution in the round, how well do you think we are currently tackling noise pollution on a scale of 0 to 10? Do you think it is being given the appropriate priority by decision-makers?

Peter Rogers: There are two sides to the coin. Keeping it very brief, I will give it a five to six. I think we have a fairly good handle on what is going on with noise pollution from transportation sources, but not so much in many of the other areas and almost none when it comes to how sound can be positive in our environment. So, that is a great opportunity.

It is absolutely not getting the appropriate priority from decision-makers. Its sister, air pollution, gets a lot of attention. Noise pollution gets almost nothing in comparison.

Paul McCullough: I also would go for a six. It is good in parts. The noise policy statements have helped to drive the issue forward. However, there could be a more strategic approach to delivering on strategy that would help to direct resources and competence in the field, which is required, particularly from a local government perspective.

Stephen Turner: I would be a bit more generous and say six or seven, mainly because in proposals that manifestly have a noise impact—say, expanding an airport or a new road—the noise issues are properly addressed. As Peter said, we have a reasonable understanding of the impacts that would cause.

There are other times, for example in the push for new housing, where consultants like us tend to get presented with a layout with no opportunity to optimise it from a noise management perspective. All we are asked is what noise insulation is needed to get it through planning. Somayya mentioned the guidance that organisations have produced,

which talks about good acoustic design and thinking about the layout—where you put houses, where you put bedrooms in the houses, and so on. To that extent, it could be much better, if only good acoustic design was applied sooner.

Somayya Yaqub: Like my colleagues, I would give it five out of 10. We have the policy, but we need a strategy and road map to move forward. As Peter said about planning, we are building properties that may not be suitably laid out. We also have the desire to have everything local, and there is a disconnect between what is desired in the area and what the individuals living there actually experience.

Enforcement action is not always a solution as it is too late in the day. Therefore, noise needs to be higher up on the agenda. As similar to air pollution as noise is, it should be materially considered for planning and licensing applications.

Q57 **Lord Sharkey:** Thank you. If it is going to be higher up on the agenda, the question arises: do decision-makers have access to the latest scientific evidence and an understanding of the impacts of artificial noise in making their decisions? Paul, would you like to take that?

Paul McCullough: I think maybe Stephen should.

Stephen Turner: I am happy to help. In theory, they do, because there is an awful lot of material out there. However, when it comes to the decision-making process, do they have time to consider it in detail separately or do they simply rely on the noise impact assessment from consultants when putting forward the proposals, and the assessment and expected impact? I suspect that in theory they have, but I do not know whether they use it much and whether we have made it as accessible as we can. The Institute of Acoustics has quite a library, which we are now trying to digitise to make it even more accessible.

Peter Rogers: I think it is important. You have heard the terms anthropophonics, biophonic and geophonic—in evidence before. This is the split into the human aspects and the natural aspects of sound and the sounds from wind, rain and thunder etc. It is very tempting to say that one is bad and the others are good, but the reality is that the knowledge base is expanding rapidly. The evidence base is very strong in some areas. It needs to improve in others.

The opportunity for decision-makers to stay abreast of that is very difficult. We would suggest that there is a forum whereby that information can be injected into decision-making more easily and rapidly as the information is emerging. To do that would result in more joined-up thinking across government.

Somayya Yaqub: Sadly, I do not think that a lot of the environmental health practitioners necessarily have access to the relevant expertise. That is not because of their lack of wanting. It goes back to local authorities, where environmental health has not been adequately resourced over a number of years. That has allowed planning colleagues to process planning applications without necessarily having comments

from environmental health practitioners who can critique it and try to prevent a development that could have a significant detrimental impact on human health.

- Q58 **Lord Krebs:** I would like to build on Lord Sharkey's question by asking about the relationship between policy and implementation. Some of the evidence we have received suggests that, although the policy statements may be adequate, they suffer from lack of implementation. Would you agree? If so, what are the barriers to implementing the policies in practice and how could they be overcome? I would like to start with our two representatives from the environmental health profession.

Paul McCullough: In terms of implementation at local government level, the pressure is on resources. There is a reliance upon staff to be trained and competent in the field to tackle noise. You will have heard evidence about the specialism associated with the subject. In local government there is intense pressure on resources. We would call for local authorities to give it the attention it deserves and to ensure that staff are competent and able to tackle these issues, as implementation comes down to local government decisions, particularly in the planning sphere. Chartered Institute of Environmental Health practitioners are always trying to solve problems before they occur, so the planning stage is critical to us. If we are to rely on that stage, the competency has to be there to assess and input.

Lord Krebs: It is both time and knowledge.

Paul McCullough: Of course.

Somayya Yaqub: As well as time and knowledge, it is about having the experience and the expertise. If environmental health practitioners are training up and a local authority does not have environmental health officers reviewing planning applications, the skills and the training they receive will be limited. Local authorities need to be adequately funded and the role of environmental health needs to be ring-fenced.

Peter Rogers: I think the overall policy is very solid. The reality is that there is currently no strategy. It is missing in action entirely. In terms of barriers to the policy, there is the siloed approach that departments are taking. This is happening as much at central government level as it is at local government level. Sound is ubiquitous; it affects all of us all of the time. You cannot turn off your ears. From that point of view, making sense of that within a planning, licensing and regulatory context requires a consistent approach even though the tests are slightly different. Finally, the wrong sound in the wrong place at the wrong time can make all the difference and has serious consequences for human health and wellbeing.

Stephen Turner: On the Noise Policy Statement for England and the equivalent in Northern Ireland, there is an awareness that it exists among policymakers and local authorities. However there has been an inconsistency between local policy and national policy. Looking at the language, it is not quite the right words and that sort of thing.

I noticed a curious thing about the Noise Policy Statement for England when I went on to the government webpage yesterday. There is a banner saying that this policy was brought in by the Labour Government of 2005 to 2010, which is absolutely true; it was published in March 2010. That immediately gives the impression that it may not apply, but we know it applies. It was referenced only yesterday by the Department for Transport in its policy on aviation noise. There is almost a presentational issue. We need to re-emphasise to people that this is the policy and it should be used to direct our noise management.

Q59 Lord Krebs: Could I ask a slightly different question? Again, I address it to Paul and Somayya. Is there a link between exposure to noise annoyance and social deprivation?

Paul McCullough: That is certainly something we observe being out in people's homes. In houses exposed to noise, those links tend to be present—for example, homes that are in densely populated areas close to major transport networks, perhaps older properties in which the sound insulation met the building requirements at the time but not the requirements of modern protective sound insulation. Those are issues that we see daily.

Certainly, the inadequacy of sound insulation in premises is a problem, particularly where noise nuisance cannot be applied, so there really is no safety net. We would ask that consideration is given to this. Local authorities should be applying further standards on housing quality in both the private rented and the public sector to improve sound insulation, particularly where there is exposure to transport noise, which tends to be in more densely populated areas. There appear to be socioeconomic links.

Somayya Yaqub: There is correlation between those who live in deprived areas and noise nuisance and annoyance, as Paul has said. I have witnessed permitted development of an office to residential conversion being allowed without due consideration of the surrounding environment and internal acoustics, which are near enough non-existent. For individuals who are impacted, the socioeconomic factors need to be taken into account. Their understanding, culture, experience and expectations all have an impact. That will change from one street to another, from one person to another.

Q60 Lord Wei: As a response to noise policy issues, the Institute of Acoustics recommended a noise management strategy consisting of three planks: a road map with targets for reducing noise exposure; the use of soundscape principles to create positive spaces that enhance well-being; and a programme of primary research to generate up-to-date evidence on noise impacts. I do not want necessarily all of you to answer all the following questions, but perhaps I can invite one of you to set out, for example, a road map for targets for reducing noise exposure might be set.

Stephen Turner: I am sure the committee is familiar with the Environmental Noise regulations, which produce noise maps and action plans. Those maps give us a lot of data. The sort of target we were

thinking of is reducing over a period of time the proportion of the population exposed to a certain level of noise. That data is available: you can find it not only in the reports produced by Defra but in the public health outcomes framework, which has some terms. I think it has also been an indicator in supporting the 25-year environmental plan.

Or we could take it one stage further and, based on the World Health Organization burden of disease report, calculate the number of disability-adjusted life years that noise impact causes, and, again, aim to reduce that over a period of time. That would address the third aim of the noise policy statement for England, which talks about improving, where impossible, health and quality of life due to noise management.

Those are just two examples in the transportation sector. There are others, but I will stop for the moment.

Peter Rogers: I would focus on the fact that we spend over 90% of our lives inside these days; you only have to remember Covid to remember that those numbers are going up. So part of this is about making sure that our internal environments are restorative—in other words, you can have quality sleep, quality rest and respite as well as the ability to access external space that has good-quality amenity, which is where soundscape quality comes in.

Of course, none of those things can happen without the basics of protection. One challenge is thinking about what a sustainable future will sound like, because we have an issue with facades needing to deal with overheating and a general push to build more houses closer to noise sources. The challenge is that if we are to achieve a sustainable development outcome, it is essential to get that right.

Lord Wei: You mentioned that you have done a lot of work on soundscape principles to enhance well-being. How would the idea of improving the soundscape get embedded in a regulatory policy framework?

Peter Rogers: We have the advantage of Wales leading the way at the moment and putting some guidance and policy together on that. I would urge the Government to consider taking a similar line, because the reality is that there is general evidence supporting the idea that where we are able to connect with natural sound we feel better and well-being improves. You can see the link between the idea of being shut away inside your home with high levels of sound insulation and potentially not being able to open your windows. That is a serious threat to our well-being. That evidence base is new and is strengthening quickly, but we could do with some assistance to accelerate that change.

Lord Wei: Could you let us know where that evidence base comes from, because, as you say, it is new and it has been hard to find that?

Peter Rogers: Yes. There is a string of papers emerging from UCL. There is a strong body of evidence there. You have heard it in some of the other evidence. I am happy to provide a list of sources for that covering this whole area, but there is a lot more work to be done in this area if it can be given the ministerial attention.

Q61 **Lord Wei:** While we are on the subject of evidence and research, we would love to find out from the rest of the panel what other research is needed to get more up-to-date evidence on noise impact, particularly in areas where it has not yet been done sufficiently.

Paul McCullough: The environmental health practitioners in local government rely upon that guidance to make consistent judgments. Certainly we have seen an increase in recent years in renewable energy development and the noise impacts associated with those. There is still more work to be done on defining what the impacts are and should be, and just exactly where the balance should lie between the benefits of renewable energy and the noise impact upon local communities. We would certainly like to see more research completed in relation to that. I am aware that some is ongoing.

We are looking at air source heat pumps and the expansion of the electrical grid to compensate for those. The Institute of Acoustics has done some fantastic work recently with the Chartered Institute of Environmental Health in relation to noise from air source heat pumps. Chartered environmental health practitioners are in a position to consider a wide range of issues, so we can understand the sustainability measures that are needed to meet climate change targets together and the need for air source heat pumps. At the same time, we can also understand what their impact on noise will be in local environments and residential situations.

Again, it is about guidance on those emerging issues. Britain needs to lead on this. There is a fantastic opportunity to lead the world in guidance associated with these technologies to allow for widespread implementation with ease and minimum fuss to meet those climate change targets, which are key.

Somayya Yaqub: I support Paul on that. I totally agree with him. It is an opportunity for us to have an innovation trial to allow for more engineered solutions. This is a great opportunity for the future as we consider the soundscape and sustainability. We need to look into the benefits of the 15-minute city, which I mentioned, and making that sustainable as a whole, not just individual buildings. We need to be thinking of the future. I have been involved in guidance on air source heat pumps. It is now, it is current, and it is happening. It is great for the environment targets but not for some of the residents who unfortunately are having to experience them¹.

The Chair: How should we approach making these compromises, if you like, between addressing noise and addressing climate change?

Somayya Yaqub: There needs to be a pragmatic solution to this and no silo working. You have planning, licensing, architects, designers all coming together and looking into the energy side of matters. It is not one or the other. It is about looking at sensitive solutions. It can be done. You can have energy efficiency, you can have wind farms, with little to no

¹ These are units which have been installed through permitted development and/or without due consideration of the impact on neighbouring/surrounding properties.

impact on the residents. It is about designing and planning. Some of my colleagues from the Institute of Acoustics might want to add to that.

Peter Rogers: It is well known that noise pollution is one of the proxies for communities to have serious concerns about development that might include a range of noise, from fracking to perhaps the more renewable end of sound sources; there is concern about air source heat pumps and wind turbines. Noise often emerges as one of the first things to be an obstacle that slows things down. That is my experience with air source heat pumps, currently. I am involved in the research currently looking at that. It illustrates the point that, if we are going to create sustainability in reality - communities that can work well together, we need to think also about things like vibrancy and the balance.

The difference with noise and sound is that, when the source is stopped, the pollutant disappears, as opposed to air pollution where there is an ongoing issue. The challenge and the opportunities are there to be able to manage diverse soundscapes that fit the intended uses within communities. As we move closer together and look at new technology, dealing with acoustics and sound will be a central part of the solution.

Q62 **Baroness Northover:** I just wanted to pick up on the point about heat pumps. You probably know that the Environment and Climate Change Committee of the House of Lords has just done a report on heat pumps. I was on that committee. We were encouraged by the fact that a lot of effort was going into reducing the noise of heat pumps. We visited one site incredibly quiet. Given that this is a public forum and the session is being broadcast, I wanted to add that it is great that they are moving in that direction.

If I can come on to the question, you will probably know that this inquiry is motivated partially by the publication of the WHO's 2018 updated guidelines on environmental noise for the European region. Are these guidelines reasonable to enforce? Are there any practical interventions employed in the UK in particular or elsewhere that can help to reduce or mitigate the impacts of noise pollution? We have been looking a little already at building standards—or the lack of standards—and you might include that in your answers.

Somayya Yaqub: As to whether the guidelines are easy to enforce—

Baroness Northover: Sorry, I do not mean easy to enforce. I mean: do they make sense, and how enforceable are they?

Somayya Yaqub: The guidelines do make sense. I think it is a matter of being able to apply them. That is important.

Baroness Northover: Okay. That is very helpful. Are there any other comments on the WHO guidelines?

Stephen Turner: I can understand why the Government did not rush to adopt them, because they are set to protect the vast majority of the population from any health effect of whatever source is being considered. However, they did not take account of the social and economic impact of achieving those guidelines with our current technology and the way

society is currently operated. It would set unreasonable expectations for what we could achieve if we just said that we were going to meet them, because it just would not happen.

They are very helpful in the exposure response functions they produce—in other words, how much noise has what effect on people. Where it is disappointing from a government perspective, as I think you may have heard before, is that the document called *WebTag*, which is where the Government monetise the impact of noise, has not been updated to reflect the new exposure response functions that appeared in the WHO guidelines. I understand that other work was done by Defra to update the data. This means that we are still making decisions about major infrastructure that are not based on the most up-to-date monetised equations. To an extent, there is a gap that could be filled quite easily.

Peter Rogers: I would like to flag up and direct you to the UN *Frontiers* report 2022, which sets out clearly opportunities that exist for moving forward. It is a great visionary approach and call from the UN to pick up on sound, particularly around soundscapes, in dealing with noise pollution. WHO is one of the foundation points.

Q63 Baroness Northover: Are there any reasonable actions that people wish to mention which can be taken to reduce or mitigate these impacts, perhaps relating in particular to building standards?

Peter Rogers: The first thing is the quick and early involvement of acoustic advice right at the beginning of planning our urban environments. That is fundamental, because then we can consider the right sound in the right place and design them for the range of day and night activities—vibrancy, respite, and all those sorts of things. Where we are is effectively a consequence of what has gone before, and we can do better than that.

Stephen Turner: Our understanding of how to mitigate noise is quite mature. We have been doing it for around 60 years, if not more. There is work all the time looking at novel methods. Over the last two or three years we have seen sonic crystals, which are a potential way of dealing with reducing the propagation of sound.

We have to accept that there are challenges and that, for houses very near busy roads, there is virtually nothing you can do other than perhaps increase the sound insulation of the building. We have had pressure for 50 years or so to reduce the noise of individual road, air and rail vehicles. That is still happening. The question is: are the standards set reflecting what can be achieved, or could they be set to push technology to achieve better? That is an interesting debate. I suspect it is the former rather than the latter, but at least we have the standards. It means that newer aircraft, for example, have to be so much quieter than they were, say, 40 years ago. That is moving in the right direction.

On the point about building standards, we have building regulations which I am sure you are familiar with. Our colleagues who spend their time dealing with this might ask are the standards better, bearing in mind that we are noisier as families than we were 40 years ago, with washing

machines, dishwashers, tumble driers, hi-fis and enormous television soundbars. They did not exist in the early 1960s and the standards we have for building regulations are not terribly different from then. That is another area that could be looked at and understood. There are bits of work going on, but maybe not as much as we could do.

Somayya Yaqub: There is a lot of push to build more homes and we are looking into fire safety and building safety following the Grenfell fire. It is an opportunity for us to look at overheating and ventilation, rather than having individuals placed in a property that is sealed, where they can be more susceptible to poor air quality and to other sounds. If you are in an environment where you could hear a pin drop, any slight scuffling or noise from the neighbours will disturb you. However, if you have a healthy surrounding sound, that helps. That is key. From an energy efficiency perspective, we are in danger of building to standards that are perfectly fine, but we may be enclosing individuals and creating a big problem in the future.

Q64 **Lord Krebs:** I have a question for Stephen. You talked about the economic cost and benefit calculations being out of date because they have not taken the WHO response functions into account. I think that is what you were saying.

Stephen Turner: That is right. They have not taken those or any other updated response function into account.

Lord Krebs: When planning authorities are considering noise mitigation—let us say, when a new housing development is sandwiched between two main roads or a new railway line is being built close to existing housing—does that mean that the calculations about the economic costs and benefits are wrong because they are using out-of-date information on the health impacts?

Stephen Turner: Our feeling is that they are underestimating the cost of the impact of noise, so it is more difficult to justify mitigation to address that noise because the cost benefit does not work out so well. That is the sort of context.

Lord Krebs: That is what I meant. So if the updated response function were being used, there would be more requirement on somebody to mitigate—either the developer of a housing estate or the builder of a piece of transport infrastructure.

Stephen Turner: Yes. It is used more in the context of the latter, new transport infrastructure. I do not think I have ever seen it used in a particular housing estate, but I do not think there is any reason why it could not be.

Lord Borwick: You mentioned sonic crystals. What are they?

Stephen Turner: I rather feared it might be a mistake to mention that. I might have to send a note in afterwards, just so that I do not have to correct myself when I go astray. Broadly speaking, they are cylinders that are spaced out, and as the sound goes through them it is mitigated relatively more than if they were not there. I think they have to be quite

carefully tuned, so there is a practical implementation issue, but you never know: they could help. There are papers on this, so perhaps I could submit references to it.

Baroness Northover: Have you been given any for your birthday?

Stephen Turner: I have not had any presents yet today, so I am waiting with bated breath. I might get a sonic crystal yet.

Lord Borwick: They are not actually crystals at all.

Stephen Turner: No. That is just the terminology. They are not crystals in the material sense.

Lord Borwick: Thank you for helping.

Q65 **Baroness Warwick of Undercliffe:** You have all mentioned the need for a strategy and joined-up thinking, and the problems of a siloed approach. That reflects a theme that has run throughout this inquiry: that there are lots of different government departments and government bodies involved. There is a policy on noise pollution from Defra through to policy from what was Public Health England, from the Department for Transport for specific installations, from local authorities on the enforcement side.

The question really is whether this range of different organisations actually hinders policy development, whether the different parts of the system communicate effectively, and whether it is clear where responsibility lies in every case.

Stephen Turner: I do not think the fact that we have these different areas is an issue, because we have to remember that different sources affect us in different ways. It is not like air pollution where, once you have nitrogen dioxide, that is it. You have heard from others how context, the types of sources, the character of sources affect us differently. So in itself it is not a problem.

The main issue is making sure that all those different areas get the appropriate expert advice; that the different departments or bodies realise that there is an issue and get the advice either from within government or from external organisations such as the Institute of Acoustics. My personal fear, which is based a little on my experience, is that for officials in those other areas noise is far from the most important thing; they have other things that they have to deal with, and noise is almost a side issue. They might not be aware of the policy or how noise could be managed effectively; hence, you do not get the optimum outcome.

When I saw that potential question about communicating effectively, I recalled that when I was involved with Defra and the environmental noise regulations came in following the environmental noise directive, we suddenly found ourselves getting more inquiries from elsewhere in Whitehall, saying, "We've got this policy area. Does the directive affect us?" All of a sudden we were able to say, "No, it doesn't, but ...", and offer some assistance. Maybe when launching a strategy the same thing

will happen: it will cause other parts of government that have a bit of noise responsibility to say, "How does that affect us", and get the dialogue going and improve communication. That might be how that happens.

My former colleagues at Defra probably ought to be the people at the centre of this. As you have heard, they have the responsibility for the Noise Policy Statement for England, but I suspect they might need a few more staff to be able to handle any inquiries that might arise from this approach.

Baroness Warwick of Undercliffe: Thank you.

Peter Rogers: In our evidence there is a very interesting diagram, which I will hold up because the colours tell the story. It is quite simple. If you were to spread this issue any thinner, it would not exist, so it is incredibly difficult to get some sort of consistency, given the way it is currently done. Defra is doing the best it can with what it has. Unfortunately, for whatever reason, noise pollution is so far down the agenda now that it is being missed out from important pieces of policy.

The only thing we really have left is the Noise Policy Statement for England, the NPSE, which sits over the overarching departments. If the departments were to implement the three aims in the strategy and be reminded that they need to consider that in all their decisions, that would be a huge step forward.

Baroness Warwick of Undercliffe: So you do not see rationalisation in some way as a way forward.

Peter Rogers: I do not think that is necessary, provided that this additional step happens. The lack of strategy has to some extent paralysed the situation. Noise pollution in particular is standing in the way of our progress on sustainability and sustainable development particularly. It is part of taking the brakes off.

I hear what you say [Baroness Northover]. I am aware in the work that I am doing on air source heat pumps of some very quiet units, but we are fairly early in the technology, so there is a range of units. Right now, that is one reason why the rollout is being slowed down to some extent, as far as I am aware.

Baroness Warwick of Undercliffe: Thank you. Paul and Somayya, you are at the sharp end of all this, so you have to deal with the different bodies. What is your take on this issue?

Paul McCullough: It is a broad issue. Noise covers everything from energy to housing and transport; by its very nature it covers a lot of those areas. It is very hard to pull it out and, separately, put it in one particular place. I endorse the comments of my colleagues at the Institute of Acoustics on the need for a strategy that can provide the method of weaving it all together.

On implementation and level of communication from a local authority perspective, local authorities rely on guidance to implement policies as they come through. More work could perhaps be done there, and we

think that a strategy would help to deliver that.

Baroness Warwick of Undercliffe: You see Defra as the focal point for that strategy.

Paul McCullough: Yes.

Somayya Yaqub: There needs to be a bit more working together. Defra is doing what it can, the Department for Transport is doing what it can, but when it comes to understanding that local authorities are there to enforce, we need to be able to educate and advise individuals; enforcement is the last resort. Applying current guidance, such as good acoustic design in developments, will go a long way to enabling individuals to see what is currently out there and to make use of that. That is key for the future.

Baroness Warwick of Undercliffe: Thank you.

Q66 **Lord Holmes of Richmond:** Good morning, and thank you for taking the time to be with us today. In your closing remarks, could I ask each of you to set out what you believe the most pressing priority is for the Government to address in relation to noise pollution in the UK? What is your key recommendation?

Somayya Yaqub: We need to bring back the specialist noise practitioners in local authorities who will critique planning applications and be able to defend their comments when it comes to an inquiry or where developers are trying to get through an application. As can be seen across the country, we end up with poor development leading to health issues, a breakdown in neighbourly relations and lack of community cohesion. Permitted development rights in particular, or if it is a residential conversion, need to be reviewed. Noise must be a material consideration of a development. These conversions must be supported, with the noise assessment to justify the conversion to protect public health.

Local authorities are now having to deal with complaints from these conversions, which are no fault of the occupants but are due to inadequate sound insulation and ventilation, creating tension among neighbours. Local authorities are in desperate need of technical in-house expertise, but that requires resource. Currently, local authorities rely too heavily on noise consultants who do not consider noise impacts sufficiently at the planning stage.

There appears to be a reactive response to resourcing officers in housing services to deal with damp, mould and air pollution. The same is required for noise specialists. Those roles need to be ring-fenced to protect the public; that is what environmental health is there for. We need sustainable communities, not just sustainable buildings.

Paul McCullough: I will comment on the impacts of neighbourhood noise and nuisance on individuals. Nuisance legislation can work very well for the protection of health. Some policy changes and legal decisions have made that a bit difficult to interpret from an environmental health practitioner perspective, but we still look to the nuisance standard. Where

planning and everything else fails and a neighbourhood noise situation needs to be addressed, nuisance legislation can be used to do that.

One of our problems is resources. I mentioned earlier, and Somayya has touched on this as well, that there need to be adequate resources for local authorities. What would help is if local authorities looked at new technologies and methods to speed up interventions and make them more quickly than a nuisance case that can drag on for many months, and indeed years, going through magistrates' courts and various statutory abatement processes.

I draw a parallel with the Noise Act, which provides an expedited procedure in a very narrow noise circumstance where local authorities can take action very quickly. I experienced that when working in night-time noise services in Belfast, when we were able to call at noisemakers' doors in the early hours of the morning and provide a quick intervention from the local authority—there were certainly some startling sights from time to time.

I would call for further investigation into any areas where narrow, quicker resolutions can be brought rather than months and months of investigation to bring a case before a magistrate, such as a greater use of civil penalties and fixed-penalty notices just to speed processes up. If local authorities are to deal with a rapidly increasing number of complaints, we perhaps need a quicker methodology to resolve them.

Stephen Turner: Over my career, the evidence on the effects of noise has increased. When I started, we had just about moved away from stopping people complaining to recognising that people could be annoyed and yet not complain, so annoyance then became the focus of attention. Since then, we have learned about the non-cognitive effects that you have heard about—the increased risk of cardiovascular disease and so on. Yet 20 or so years ago the then Secretary of State described noise as a “Cinderella pollutant”, and I think it can still be described like that.

We only need to look at the 25-year environment plan, where noise is not mentioned, although there are a couple of indicators in a secondary document. It is not one of the key areas of activity for the Office for Environmental Protection. If you go to its website to see what you can complain about, noise is not listed; nor is it mentioned in this year's environmental improvement plan. So there is a huge gap. We feel that we can raise its profile by having a sound and noise management strategy, with the targets that we discussed earlier and the other elements that we have described.

I believe it was Lord Krebs, when you had the researchers here, who mentioned not having a statutory advisory committee on noise. That is an interesting concept. Even though “noise” is a single word, it covers such a range of issues that you would not be able to have a single body of experts dealing with such a large subject unless the body was very large. I could help with aircraft noise or construction noise, for example, but you would need Peter to deal with issues of licensing. Were such a committee to be established, it would have to be quite nimble-footed.

Lastly, and I know there will be a dreadful sigh of “Oh, not another one”, but an all-party parliamentary group on sound and noise management would help us as a professional body to talk to people like you when we can see something bubbling underneath that could be an issue, because all our members are at the coalface on this and they can see things happening, even if it was just us saying, “Can we suggest that this might be looked at, because we can see it being an issue in future?” Hence our desire for such a committee. As we say in our evidence, we would be happy to act as a secretary for that, because we think it is so important.

Peter Rogers: I will not repeat what has just been said, but I remind everyone that noise and sound are ubiquitous; it affects all our lives all the time. It is the way we connect to our environment, so it is critical for us to move past the climate crisis and ultimately achieve something that is sustainable for the future. Without that, a net-zero home in the wrong place that does not work for the users is not sustainable.

It is important to understand that our environments are effectively part of our need to restore our future environment. So my number one priority would be restorative soundscapes. It is thinking about what it takes for us to be able to sleep well, to have respite and to recover, to play and have vibrancy and to enjoy that, and ultimately to engage with the world around us in a way that is restorative for us as well as our biodiversity and services. It is about recognising that the mechanism is there for us to do that. The third aim of the noise policy is to “enhance and improve”. It is really about the big push for good acoustic design from the very beginning of these processes in all departments in a joined-up way.

Lord Borwick: Am I right in thinking that of the range of complaints that come to local authorities, noise is one of the most prevalent?

Paul McCullough: Yes, councils are very busy when it comes to noise complaints. There is a generally increasing trend; the coronavirus restrictions may have caused a bit of a dip in the statistics, so to speak, but the general trend has been increasing year on year.

Lord Borwick: Residents feel that they can do something about noise, but they cannot do anything about air pollution, even though it might be causing them many more problems.

Somayya Yaqub: It is not always possible to do something about noise nuisance.

Lord Borwick: Indeed, but it sometimes is possible.

Somayya Yaqub: It is possible, but we have to look at the community impact. It is not just about an individual; it could be a whole community that is impacted due to poor design and poor initial planning.

Lord Borwick: Indeed, but am I right in thinking that people’s opinion is that it is possible to do something about noise?

Paul McCullough: Yes, people feel as if it is something that is done to them, and the local authorities are there to try to help and to resolve those situations.

Stephen Turner: We all have a view about the acoustics of this room and how well we can hear each other, but we do not have a view about whether the levels of nitrogen dioxide in here are satisfactory. That is the big difference between noise and air pollution.

The Chair: Thank you. As you see, we have all managed not to fall asleep today, so the air quality is better than it sometimes is. Thank you all for that interesting evidence. I remind you that some of you have kindly offered to send us further evidence, which we would very much like to receive.