Resilience of housing and infrastructure to climate impacts – inquiry session one

13 April 2026

- Panel in attendance: Fleur Anderson MP (chair), Adrian Ramsay MP (vice chair), Wera Hobhouse MP (vice chair), Lord Harlech, and Baroness Willis of Summertown
- Witnesses in attendance: Heather Shepherd (Flooded People), Louis Ramirez (Flooded People), Megan Dunford (Zurich), Katherine Waters (WSP), Lucas Everitt (AtkinsRéalis), Sarah Mukherjee (ISEP), Elisabeth Sullivan (techUK), and David Steen (UKGBC)

Panel one: Living through flooding and priorities for community support

Have you had any personal experience of flooding and if so, can you describe it?

- Flooded People: Yes, it is much of what you see on TV. It is a lifechanging experience, there are so many parts of it that aren't seen or known that people must deal with. It is physically and mentally exhausting and it goes on to the period of recovery. For some people it has taken up to five years to get back into their homes which takes a toll. People who experience repeat flooding may feel that they can't go on holiday at certain times. The ability to cope as you get older and less physically able is overlooked and needs more research. The preparation work is also hard for those who are living with disability.

What is your assessment of emergency responses of public services to flooding?

- Flooded People: Broadly, immediate contingency plans work well, and people are happy with the immediate blue light response. Though in rural areas, at times people do feel frustrated. The fire brigade are not statutory responders to flooding but they should be. They are being pulled in different directions and can say that they don't have the duty to respond. Some have called them and gotten the response that there is no threat to life.

How robust are action plans for local authorities?

- Flooded People: The National Emergency Trust has done research on the long period of recovery, and this has shown to not be in a good state. There is a long way to go in the recovery part. It is also hard to respond on a national level as it is specific to the area. Often there is an empathy gap from the local authority's response team, who often don't have a community liaison officer. The impact goes beyond the physical stuff and about how cared for and supported you feel as it is a traumatic experience.
- Flooded People: There also could be a better understanding of insurance as none of that is thought about beforehand to make sure people are better prepared for it. We need to see more integration and savings can be made if everyone is working together to create a project.
- Flooded People: There is also a lack of communication between local and national authorities which can make recovery harder. This process needs to become clearer to effectively help the lives of those impacted.

What further support is needed for people who experience repeat flooding?

- Flooded People: Repeat flooders suffer the most. There needs to be more of a focus on it as it destroys lives completely. People have taken their own lives due to repeat flooding, and it is an unacceptable way to live. From October to January, there were six storms.

- Flooded People: There is an emerging consensus that we need to focus on recovering in a cheaper and faster way than to tackle the causes and stop flooding. There is no easy answer but there are benefit cost positive policies that are not covered in the current budget.

Which specific policies are needed?

- Flooded People: There are granularities that can trim the suffering as we have a system of responsibilities that is very complicated. It is very common for the water and environment agency to blame each other for instance and we need institutional clarification.

Do you have examples of places that are doing this well?

- Flooded People: The Netherlands has a strategy, long term funding and then delivers it back from the outcome. The land there is also much more homogenous which makes it easier. The Severn valley water management scheme is a good example, though it is unfunded but is delivering a set out outcomes along a catchment. An issue that borders don't map onto hydrology which makes local authorities' separation on this issue hard. Catchment based approaches are not the norm and a barrier is the historic make up of responsibilities.

Panel 2: Resilience of housing and infrastructure to extreme weather continued

Are you able to quantify for us the impact flooding is having on UK housing currently? How is this changing insurance practices? If you are a homeowner, what can you do to mitigate so your premiums?

- Zurich: Flooding is the most significant climate risk. The typical cost to households is £57,211 and there are around 15% of hidden costs such as relocation costs like childcare, days off work, health costs, work commute, repairing external things like fences. These costs impact those in social housing more.

If you live in a flood plain, what can you do and how do insurance companies deal with this?

- Zurich: We send out risk solutions to provide suggestions on how to build back better that are focused on improving resilience. These are customised plans based on the individual which helps to better deal those living on a floodplain. Zurich is more of a commercial insurer though and there is the government Flood Re scheme.

How well is the impact of flooding expected to change over time with climate change? How well do you think government departments understand these risks?

- WSP: We don't have a significant warning system for local authorities. Developers say that surface water flooding is just a puddle. For surface water, the system only looks to 2060 but for ground water it is even worse, with even less knowledge. Planning officers are under resourced and refusing planning permission is costly. There is the right to appeal, and local planning authorities (LPAs) are deciding not to defend as it is cheaper, but this means that projects will get planning permission. In National Policy Planning Framework (NPPF), you don't need to look at flood risk. We try to improve surface water draining and ensure there are separate flow paths. They put schools in flow paths which is scary as these are not shallow bits of water. You can also use a sustainable drainage system (SuDs) and can improve it in planning. However, nobody checks once it is built and we rely on builders and

developers to do what they say they can and there is no recourse if it doesn't do the things listed to get planning permission.

- AtkinsRealis: Yes, the risk will increase with climate change. SuDs is also often only implemented after the fact.
- Zurich: According to the environment agency, 6.3 million properties are at risk from flooding, and this will only rise.

How well does the current policy framework, including National Adaptation Plans (NAPs) and planning policy, address the risk of flooding to housing and infrastructure?

- WSP: Planning policy is generally not statutory, but areas are weighted against each other. A planning officer may reject an application, but the inspector may approve it as home building is more important. Local authorities don't always have a five-year housing supply; some only have one. If you can't retrofit into a new development, there is an issue.
- AtkinsRealis: The last update to NAP has ended up with more properties being built in high flood risk areas which is a significant red flag.

What needs to change in water management more broadly to tackle flooding?

- WSP: There needs to be better water reuse. Drought increases flood risk too. Implementing SuDs helps and means biodiversity is sustained, reduces heat island effect and subsidence. Archaeological sites in this country also depend on damp surfaces. We need to be thinking about where we should be using water more and where can we put it back into the system and into chalk streams and look at it more holistically.
- AtkinsRealis: We need to look more into efficiency measures.
- Zurich: Houses that have never flooded before are experiencing this because water from new builds is being diverted.
- WSP: It is not always about the planning but rather the inspection. There is no inspection after the planning, and it relies on the developers and planners building what they have said they will.

How does the separation of sewage and rainwater impact this?

- WSP: At the moment we are retrofitting SuDs and looking at separate surface water sewers. We currently do not design to the standard that is needed but we need to have combined sewer overflows as otherwise we would be flooding homes internally. We need to hold the water where it falls and release pressure on the combines system and stop rainwater going into it.

How much responsibility should insurers like Zurich have in this?

- Zurich: Insurers can't control where properties are built.

Should insurers be incentivising action?

- WSP: Some of this is about getting land agents to understand the limitations and constraints of land before it is purchased. Education is key as industry is trying to educate as we go.

Should this not be in a local plan?

- WSP: The local authority may not have a five-year housing supply in the local plan.

- AtkinsRealis: Empowered local governance is key as they know best what happens in their areas. The economic case is really there. Every £1 pound invested in flood prevention prevents £8 in flood damages. We do need to have targets for this though. this
- Zurich: Property resilience certificates need to be the norm at property level, similar to EPC system.

Panel 3: Resilience of housing and infrastructure to extreme weather continued

How do other climate risks, such as extreme heat, interact with housing and infrastructure? What parts of UK infrastructure are most at risk from climate impacts?

- ISEP: It is doubly difficult where even in one council area, certainly within one water company area, you can have people underwater and people without enough water simultaneously and that is only going to get worse. There is then the compounding factor of too much heat. We don't talk a lot about emotion in policy because it is difficult to legislate for. Flooding is like bereavement. The heat and it tends to be the lower quartile or decile in terms of income are less resilient to heat. Those that are more resilient, need to use more energy with air conditioning. Doctors will need to be dealing with illnesses that we simply have not seen in this country who are probably not being trained for this. We have first responders who will need to adapt to situations and there will need to be a whole new set of procedures and regulations as to how you manage that. It is going to impact the poorest and most vulnerable.
- UKGBC: We looked at flood risk, drought, overheating, wildfires and found that you can't treat the hazards individually because it is a complex system that affects each other. It is imperative that our response is not siloed and there is a risk in government that the risk might sit between departments or between agencies that a response is created in silo and doesn't seem right for the problem. There is cascading risk if we think about social infrastructure and the buildings that provide first time response to anyone who is dealing with climate risk like schools or civic buildings. If those buildings themselves are exposed to climate risk, then we have a cascading risk of that climate event where people can't access what they need.

Other than housing and commercial property, what other infrastructure is at risk?

- TechUK: You need to look at the whole built environment holistically. Transport is probably one of the most high-risk areas for instance if you have a telephone line down, if the road is washed out, it will be incredibly difficult for the repair people to get out and repair that infrastructure. The cascading risks and the interdependencies have an impact. Energy as well is one of the key dependencies and we should learn from other countries as heat has not impacted us in the same way as other countries yet. Telecomms and datacentres are only built on flood plains if housing and businesses are there so generally, they are not built on flood risk areas. Changing planning policy to make sure that housing isn't build there will have a positive impact.

Calculation of where to place infrastructure

- TechUK: It does depend on land use, and the government is making attempts to take steps forward in this area. Industry is pushing for the use of digital technology to make proper and better assessments, and this is where these is a gap in government thinking. Infrastructure

sectors are inherently tech sectors in a way. There is a lot of use and interaction with sectors to use things like satellite data and then to use AI to interpret that data to assess where the areas are with the highest risk and how can that be mitigated. For example, putting a censor on a fibre cable to assess leakage in the water system which as potential impacts such as improving biodiversity.

Are solar farms built on flood plains?

- TechUK: That would be a question for our providers. I can put this into my submission.
- ISEP: The way that we look when we are planning policy is that we look backwards, not forwards. So much of regulation is built assuming that you can use the past to measure the future, but this is simply not the case anymore. We have produced some environmental impact assessment information for our members which gives a checklist to follow through on climate change resilience and adaptation. There are things that you cannot change, if you built a tunnel you are going to have to have to build it for 25 years. You aren't going to be able to make the tunnel bigger, but you may be able to make the surfaces bigger or improve the monitoring. It is that combination of making sure that the things you can't change are resilient but also monitoring and adaptation to ensure you are bringing the best and updating as you go.

What can be done to fix and futureproof both old and new housing stock? How can we ensure that the houses being built now are resilient?

- UKGBC: There are important things that you can do at the building level like adding solar shading onto windows. The key point is to view individual buildings as a part of a system and what is going on around a building so that you can make something work for the place itself. Planning authorities have been asked to do quite a lot recently and the Future Homes Standard is occupying a lot of space and therefore maybe climate resilience is not considered as strongly as it should be. One of our key asks of government is to align incentives throughout the process to make climate resilience a higher priority in the thinking of what gets built and where. A house in isolation might be viewed as perfectly good and meeting the standard, but when you look at the context of where it is built, it might not be responsive. We found that over 50% of the existing housing stock in the UK is exposed to overheating risk.

Could use of maps help?

- UKGBC: In a sense yes, we have started building out a GIS map of local climate hazards but that does need to be read in conjunction.

Final comments:

- ISEP: We have already spoken about catchment management approaches and community or regional flooding initiatives but as far as I know, there aren't any looking at heat and the implications that too much heat will have. It could be set up at a regional level, in the same way as catchment and the other things is that we need to get over ourselves. There are all these pots of money that could be put together for a shared outcome. Most of us share the

same outcomes so why not pool the money and look at the three outcomes (home flooding, business flooding and heat).

- TechUK: Thinking about us using nature instead of being against it. Thinking about all these climate hazards together, they all compound each other. How can we change our mindset and stop competing against nature and start using it better? We should also look at multifunctional land and the built environment too. How can we use parts to decrease heat, which will then decrease the impact on people and decrease our use of energy and the grid. Where there is more heat, not only is there more energy use but also the energy system is under stress, so all these things compound each other. So, if we use a different approach, perhaps the solution will compound itself. Additional technology is huge to enable us to think long term and plan for the future.