

Royal Institute of British Architects

House of Commons Public Accounts Committee:
Flood defences
November 2023

The Royal Institute of British Architects is a global professional membership body driving excellence in architecture. We serve our members and society in order to deliver better buildings and places, stronger communities and a sustainable environment. Being inclusive, ethical, environmentally aware and collaborative underpins all that we do.

The Royal Institute of British Architects (RIBA) welcomes the opportunity to respond to this inquiry. Architecture plays a critical role in mitigating flood risk and improving communities' health and wellbeing during flooding. Good design can help reduce the vulnerability of the built environment to flooding – both by protecting against the risk of flooding and ensuring that buildings are better able to deal with water if flooding cannot be prevented.

Climate extremes are becoming more frequent and intense in every region across the globe. The climate emergency demands urgent action and leadership from the Government, the built environment sector and the wider construction industry.

RIBA recommends that the Government:

- Amend the Building Regulations to require buildings being rebuilt or renovated to incorporate climate resilience improvements.
- Examine the potential for regulations on flood resilience and resistance to be linked to Flood Zone (FZ) Designations through Building Regulations and planning policy.
- Support the wider adoption of nature-based solutions through the planning system.
- Consult relevant stakeholders on setting a national target for increasing the availability of urban green space, building on the progress of the Green Infrastructure Framework.

Government's preparedness to manage and reduce flood risk in the future

Flood resistance is about preventing the entry of flood water into buildings and homes, whilst flood resilience is about limiting the damage in cases where water enters a building or property. While the Government is making some progress to improve flood resistance, through been some sizeable investment in flood defences, more needs to be done to protect our homes, buildings and infrastructure.

We suggest that the Government explore and take forward recommendations in the following areas to reduce flood risk in the future:

Amending the Building Regulations

Building Regulations that adequately address flood resilience would help to stimulate an effective market for flood resilient property. The Government should amend the Building Regulations to require buildings being rebuilt or renovated to incorporate necessary climate resilience improvements.¹

In addition, to encourage market-driven innovations that can reduce the vulnerability of new development to flooding, and ensure all new buildings incorporate appropriate measures, the Department of Levelling Up, Housing and Communities should work with built environment experts, the Environment Agency and the Department for Environment, Food & Rural Affairs to examine the potential for introducing regulations on flood resilience and resistance to be linked to Flood Zone (FZ) Designations through Building Regulations and planning policy.

Flood resilience measures should be advisory but not mandatory in FZ1. As flood risk increases in FZ2 and 3 or where surface water flooding could be an issue, such as in some urban areas, the resilience measures required should increase.

Raising awareness of flood resilience

Flood-resilient architectural design is already helping communities across the world to reduce the risk to their lives and livelihoods during flooding events.

Although there has been some successful adoption in the UK of creative flood-resilient design, there remains a lack of public awareness of what resilient design means and can achieve. The Government must help to raise awareness and change public ideas of what resilient design means, to encourage the adoption of flood resilience measures.

It is important that government policy bolsters its support for communities and property owners to manage risks through property level flood resilience and adaptation measures. These should better equip people and business to live with the threat of water and stop water entering properties or facilitating quick recovery at times when it does.

Embedding nature-based solutions in the planning system

In urban areas, there is the growing challenge of surface water flooding. One way that this problem can be tackled is through the wider implementation of nature-based solutions (NbS). NbS can bring social, economic and environmental benefits at low cost, through the power of nature itself. Embedding NbS within the planning system will help to limit the negative impact of increasingly intense and frequent flooding events, and other climate hazards, on people and their communities.

Sustainable drainage systems (SuDS) are a type of NbS that can be helpful to reduce flooding impacts. It is welcome that from 2024 SuDS will be mandatory on all new housing developments. The Government should support the wider adoption of nature-based solutions through the planning system.

SuDS can also help to create green space and support wildlife. Green space offers a wide array of benefits including promoting good physical health and wellbeing for those living nearby.

Natural England's Green Infrastructure Framework is a welcome step forward in increasing the availability of green space, and as a tool to reduce flood risk.ⁱⁱ However, the Government should go further by consulting relevant stakeholders on setting a national target for increasing the availability of urban green space, building on the progress of the Framework.

ⁱ RIBA, New report calls on the Government to build flood resilient homes, <https://www.architecture.com/knowledge-and-resources/knowledge-landing-page/news-uk-must-build-flood-resilient-homes-says-riba>, May 2018.

ⁱⁱ Natural England, Green Infrastructure, <https://designatedsites.naturalengland.org.uk/GreenInfrastructure/Home.aspx>, January 2023.