SfH Insights:

Climate Adaptation in the Social Housing Sector

October 2025

Sustainability *for* Housing

Introduction

The UK is already feeling the effects of climate change.

In February 2024, the Environment Agency reported that England had just experienced the wettest 18 months on record. A few months later, in November 2024, Storm Bert brought extreme rain and winds across many parts of the nation, causing widespread damage and taking the lives of at least 5 people. Around 1,375 homes were flooded.

Storm Bert wreaked havoc across Wales too, with Bannau Brycheiniog (Brecon Beacons) receiving nearly a month's worth of rain in one night. Wales faces the unique threat of deluges causing old coal spoils to slip, which happened in Cwmtillery during the storm.

Scotland has suffered from torrential rains in recent years as well. In 2020, much of central and eastern Scotland experienced extreme flooding that led to the deaths of three people, devastated homes and caused mass power blackouts[1].

The Association of British Insurers revealed that insurers paid out a record £585m for weather-related damages to homes and possessions in Britain in 2024, which surpassed the previous record in 2022 by £77m[2].

In total, it is believed that around 6.3 million properties in England alone are at risk of flooding from one or a combination of sources: rivers, the sea and surface water[3]. The Government has recognised the high risk of flooding to households across the country, with surface water flooding being the most widespread form[4].

Heatwaves also represent an increasing threat to life, particularly in the South. The Met Office confirmed that summer 2025 was the UK's warmest on record[5]. Research estimates there were 263 excess deaths in London due to the heatwave from 23rd June to 2nd July 2025 and that 173 of these fatalities were directly attributed to climate change[6].

It is estimated that one third of all homes in the UK are susceptible to overheating, with renters, people with young children and people from ethnic minorities facing the greatest risk[7]. Cities are particularly susceptible due to the urban heat island effect, and studies show that flats (particularly upper storey flats) and homes in multiple occupation (HMOs) are the types of homes that are most vulnerable[8].

According to the Climate Change Committee (CCC), the UK is expected to experience consistently warmer and wetter winters, hotter and drier summers and continued sea level rise in the coming decades - regardless of global emissions targets and trajectories. These changes in climate will lead to an increasing number of extreme weather events[9].

It is critical for the UK to prepare for the changes in climate that are coming and adapt to the changes that are already here. This applies on both the national scale and on a sector-by-sector basis.

While there is no definitive cost estimate for climate adaptation at the national or sector level[10], it is generally accepted that the cost of inaction down the road will be greater than the cost of investing in climate resilience today

1 BBC
2 The Guardian
3 The Environment Agency
4 UK Climate Change Risk Assessment 2022
5 Met Office
6 The Independent
7 The Guardian
8 Properties vulnerable to heat impacts in London
9 Green Alliance
10 The Climate Change Committee

Climate change and housing

The housing sector is at the frontlines of the battle with climate change. This is true on both a practical and human level.

As physical structures with direct exposure to the elements, houses and apartment blocks are at the mercy of whatever the weather doles out. They must withstand chronic weather conditions like sustained high temperatures, sea level rise and changing precipitation patterns, in addition to acute weather events such as extreme flooding, heatwaves and storms – all while providing safe, dry and comfortable living conditions for the residents within.

As well as providing physical shelter, housing represents safety, security and stability on a mental and emotional level. When extreme weather events decimate homes, they batter the spirits of entire communities, often leaving lasting and widespread damage to individuals, families and infrastructure. Severe weather events, which can cause damage—or even the complete loss of social housing—make it even harder to address the UK's housing crisis, as providers must delay development plans to repair and rebuild.

Long-term weather conditions like droughts, changing temperature averages and evolving precipitation patterns may be less headline-worthy than catastrophic weather events, but their long-term effects on homes and communities should not be underestimated.

Take the coastal village of Happisburgh in Norfolk, for example. Over the last two decades, more than 30 homes have crumbled into the sea due to coastal erosion caused by climate change. The aftermath has been devastating for the affected households, and those whose homes are still standing live in fear of when they might share the same fate[11].

As for the effects of warming temperatures, a quick Google search on overheating in flats generates countless articles about UK households living in unbearable temperatures during heatwaves, particularly in London.

As a sector that is already working diligently to build low carbon new homes and retrofit its existing stock, the UK's social housing sector is better prepared than others to weather the storms of climate change. However, in order to achieve genuine resilience against a changing climate, social housing providers must view their sustainability, asset management and development strategies through the lens of climate adaptation.

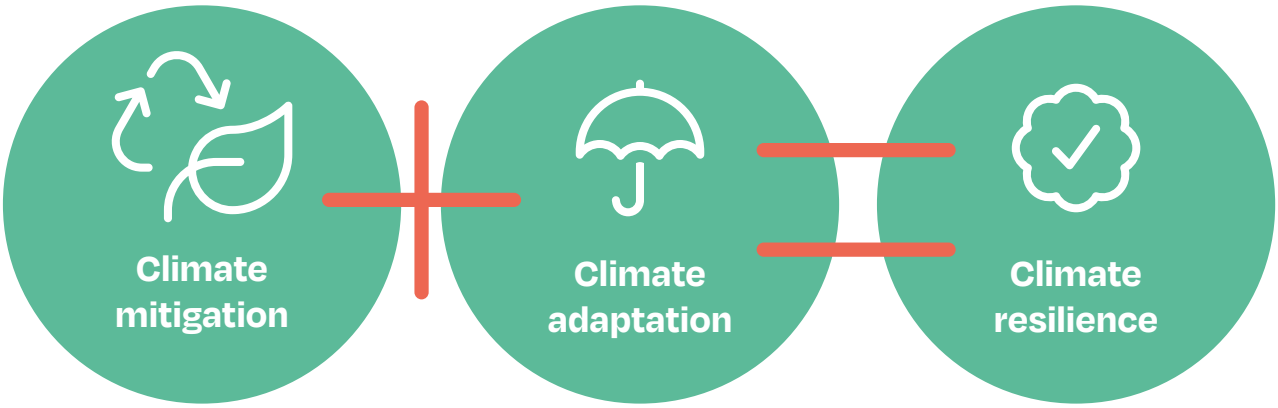
11 BBC

What is climate adaptation?

Climate adaptation refers to any actions taken to reduce vulnerability to the current and projected impacts of climate change. Examples of climate adaptation could include planting drought-resistant crop varieties, building seawalls to combat rising sea levels, installing green spaces in cities to keep them cooler, passing Government policies to enhance nation-wide climate resilience, setting up early warning systems for severe storms and installing air conditioning systems to combat hotter summers.

Adaptation differs from **climate mitigation**, which refers to actions taken to reduce or prevent human-induced greenhouse gas emissions. Climate mitigation measures can include transitioning to renewable energy sources, enhancing energy efficiency in buildings and protecting forests and other ecosystems. Climate mitigation and adaptation measures are intrinsically related – the more we do to mitigate greenhouse gases from being emitted in the first place, the easier it will be to adapt to the unavoidable effects of climate change.

Climate resilience refers to a state of preparedness and fortitude in the face of a changing climate. Climate resilience can be achieved through implementing a combination of climate mitigation and adaptation measures.



How can social housing providers achieve climate resilience?

In a 2024 survey of scientists from the Intergovernmental Panel on Climate Change (IPCC), it was revealed that the majority of respondents expect global temperatures to rise at least 2.5C above preindustrial levels this century – far exceeding the international Paris Agreement's target of 1.5C[12].

In light of this, it is crucial for social landlords to adopt a pragmatic approach to climate adaptation. By putting robust measures in place to adapt to the effects of climate change, housing associations can protect their current and future residents from harm, as well as future-proof their businesses and mitigate financial shocks.

Ideally, providers should adopt integrative approaches to their corporate sustainability, retrofit and asset management strategies that incorporate climate adaptation. Alongside damp and mould and fire safety works, housing associations should view climate adaptation as part and parcel of their asset management strategies. When developing their retrofit strategies, housing associations should consider how they can implement whole-house approaches that factor in the unavoidable effects of climate change – now and in decades to come.

When social landlords enter a home for a retrofit project, they should ask themselves - *"Does it make sense to implement any climate adaptation measures while we are here?"* and *"is the work we're doing now future-proofed for more extreme weather events and changing weather patterns?"*

Risk mapping on a portfolio level is essential. In order to implement climate adaptation measures where they are most needed, social landlords must know which homes in their portfolios are most susceptible to various climate risks. This requires housing providers to have a deep knowledge of their housing stock, something which can only be achieved with robust internal data systems in place.

Housing associations should also consider climate risk factors when developing and acquiring stock, going above and beyond existing planning requirements where possible. When developing new homes or acquiring existing units, providers should consider obvious factors such as flood risk, proximity to the coast, storm risk and overheating risk, as well as factors like soil quality, wildfire risk, water efficiency, landslide risk and proximity to green spaces.

Establishing effective communication and feedback loops with residents will also play a critical role in climate adaptation strategies in the years to come. To maximise resident safety and preparedness, housing associations should communicate key climate change risks to their customers, as well as letting them know what they can do to safeguard themselves against these dangers. Just as importantly, providers should listen to their tenants about their lived experiences with the effects of climate change, establish proper data collection processes and learn from real-world experiences.

12 The Guardian

Resident communication will also play a critical role in climate adaptation strategies in the years to come. To maximise resident safety and preparedness, housing associations should invest in educating their customers about the risks associated with flooding, overheating, landslides and other climate change effects – as well as communicating what residents can do to safeguard themselves against these dangers.

Helping residents engage with local bodies such as local authorities and the Environment Agency will also be increasingly important when it comes to dealing with localised climate-related issues.

Utilising green spaces for climate adaptation

One area that housing providers can make a significant impact in climate preparedness involves green space management. By making good use of green spaces and implementing nature-based solutions, housing associations can make progress toward climate adaptation and support biodiversity at the same time.

Tree planting, green roofs, community gardens, vegetation planting, rain gardens and swales are a few examples of natural solutions that can help cool an area during heatwaves and support water drainage during storms. These types of measures also have positive knock-on effects for community-building and health outcomes[13].

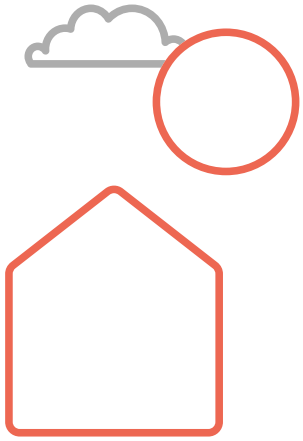
ORBIT, AN ADOPTER OF THE SUSTAINABILITY REPORTING STANDARD FOR SOCIAL HOUSING (SRS), HAS SET A TARGET TO DEDICATE 30% OF ITS OUTDOOR SPACE TO NATURE BY 2030. SO FAR, THE LANDLORD HAS PLANTED 24 UK NATIVE TREES, OVER 10,800 HEDGE PLANTS AND OVER 16,000 SQUARE METRES OF WILDFLOWER MEADOWS, ALL OF WHICH IS TACKLING THE URBAN HEAT ISLAND EFFECT AND SUPPORTING SUSTAINABLE DRAINAGE.

Adaptation measures

There are various adaptation measures that social landlords can implement to improve climate resilience. Below is a non-exhaustive list of adaptation measures that can be taken to enhance climate resilience. Not every adaptation measure will be suitable or relevant for every home.

Providers should assess which measures can be retrofitted at low cost to existing units, which measures will require additional funding for existing units and which measures can be implemented in new build projects without affecting viability. It is important to note that in practice, climate adaptation for existing homes will be done gradually as funding becomes available and it will likely take many years for housing associations to fully adapt their housing stocks.

In addition to the measures listed below, effective engagement with residents about the risks associated with climate change – and what they can do at no or little cost to protect themselves - should form a key part of any climate adaptation strategy.



13 The Health Foundation

Key climate risks	Adaptation measures
Overheating	Low-cost cooling retrofit measures: • Shutters • External shading • Ventilation • Ceiling fans • Insulation measures • Reflective paint externally Technological cooling measures (e.g. air to air heat pumps, air conditioning units) Nature-based solutions: • Tree-planting species that are resilient to changing climate (which cool down the area)
Wildfires	Replace any flammable cladding/building materials in line with fire safety measures
Flooding	• Refer to most recent national flood risk maps (NaFRA2) • Impermeable surfaces directed away from homes • Green roofs and walls (to help with water runoff and carbon sequestration) • Floodgates for homes • Flood-resistant front doors • Raised plug sockets in vulnerable homes • Water resistant render • Non-return valves to stop water entering home through drains • Tiled floors over carpets • Raised plinths underneath white goods
Sea level rise	• Refer to most recent national flood risk maps (NaFRA2) to understand coastal erosion risk • Modular buildings (although community level action is necessary)
Structural challenges to soil (such as subsidence)	• Ensure type and number of surrounding trees do not cause subsidence risk • Shield against burst pipes, leaking drains, gutters • Clear debris from gutters
Water scarcity (risk will increase as summers become drier)	Install water efficient fittings such as: • Kitchen tap aerators • Universal plug in kitchen sinks • Cistern displacement devices on toilets • Eco showerheads
Landslides	• Conduct landslide risk assessments before developing • Install effective drainage systems and avoid blocking, especially on homes located on hills • Retaining walls on steep land • Plant vegetation

The UK Green Building Council's Climate Resilience Roadmap provides a more in-depth view of how the built environment and its subsectors can achieve climate resilience, serving as a powerful resource for sustainability leaders in the social housing sector.

Climate change adaptation is a monumental, but necessary, task with which all social landlords will need to contend. It should be noted that sustainability leaders cannot do it on their own. Real climate resilience will require whole-hearted support from all areas of the business, with development teams, maintenance teams, boards, audit and risk committes and finance teams all playing their part to adapt to a changing climate.

Abri case study

Abri is one of the largest not-for-profit housing providers in the South of England, managing over 58,000 homes and community assets and serving over 113,000 customers. The Group was awarded over £23m through Wave 3 of the Warm Homes: Social Housing Fund to retrofit 2,800 homes over the next three years and has a target to develop at least 10,000 new homes by 2030.

Climate risk mapping

As part of its sustainability strategy, Abri has taken the first steps to ensure it can adapt to a changing climate. The Group is in its third consecutive year of reporting against the Task Force on Climate-Related Financial Disclosures (TCFD) framework, which has helped Abri assess its climate-related risks and opportunities.

TCFD buckets climate risk into two categories: physical risks, which are risks associated with the physical impacts of climate change, and transition risks, which relate to the societal transition to a low-carbon economy. This case study focuses on Abri's assessment of its physical risks, which is informing the Group's work on climate adaptation.

The physical risks included on Abri's TCFD register are:

1. Overheating in homes
2. Flood risk
3. Unpredictable weather
4. Supply chain constraints

Abri classifies overheating risk as the most severe, with short- to medium-term impacts expected. The rest are considered as "medium" risks, with materialisation expected over the medium- to long-term.

Ben Earl, Head of Partnerships and Sustainability at Abri, is leading the charge on climate adaptation at Abri.

Speaking about the Group's most recent TCFD assessment, he said: "This is our most up-to-date piece of work that summarises where we think we are in terms of climate risk. Abri is developing a new corporate strategy, so the key will be to align our commercial needs and our climate objectives in a way that makes sense for the business and our customers."

Abri is undertaking a range of work, sometimes involving external consultants, to deepen its understanding of the Group's climate risks and guide its next steps to avoid the worst effects of climate change. Parity software is being used to analyse retrofit costs and measures, and work is due to be ramped up on flood risk for both new and existing homes. Further analysis on overheating risk is also in the pipeline. Abri is also working on resilience upskilling and emergency planning to prepare for severe weather events.

Additionally, the Group is working with its supply chain to lower its Scope 3 emissions and encourage climate resilience. Abri held its first Sustainability Supply Chain Summit this year, which brought together dozens of its suppliers under the same roof to collaborate on key sustainability issues.

Importantly, Ben notes, energy efficiency upgrades and climate adaptation are separate areas of work – although inherently related. The former comprises a key part of any climate adaptation strategy, but climate adaptation covers a much broader range of measures than energy efficiency and net-zero heating alone.

"Retrofit is primarily focussed on carbon

reduction and the reduction of energy demand", Ben explains. "Climate adaptation goes much further, factoring in things like flood risk, overheating in summer, storm preparedness, water efficiency and more."

When done right, climate adaptation measures should complement existing retrofit strategies. By integrating energy efficiency and adaptation strategies, housing providers can enhance their resilience and safeguard residents more holistically from the financial and physical repercussions of climate change.

Ben is open about the fact that Abri is at the beginning of its climate adaptation journey.

"Initially," he says, "it's important to map out the risks and challenges, which we've done. But at some point, you have to move on to the next stage, which is: what are we going to do about it? I think Abri is at the cusp of that second point."

Looking ahead

As for Abri's next steps, a careful balance of immediate customer needs and long-term risk management will be required.

"Whether it's fire safety, damp and mould or standard retrofit works, we have customers dealing with issues today. They, quite understandably, don't want to think about 15 years down the road," says Ben.
Constrained balance sheets are also a limiting factor. Ben notes that external shutters should be a standard installation on new builds, for instance, but with so many immediate and competing priorities, it isn't always feasible to do everything at once.

A combination of strong governance, joined-up thinking and customer education can go a long way toward preparing for a warmer and more volatile climate. It is also crucial to have the right tools in place to help adapt to climate change in a way that is both data-informed and cost-efficient.

To achieve the best results, Ben believes it is crucial to have a sustainability expert represented on the board who can ask the right questions and ensure climate adaptation is a regular discussion at board meetings. He also believes that climate adaptation should be considered within board and risk committees of each housing association.

Resident education is also critical. Even when budgets do not allow for external shutter installation in the short-term, for example, housing associations can help their customers beat the summer heat by educating them about the benefits of keeping their curtains shut during the day and opening their windows at night.

Joined-up thinking is another important piece to the climate adaptation puzzle. Organisations should educate their staff on climate adaptation issues so they can collaborate effectively. Sustainability teams and finance teams, for instance, should ideally be able to speak the same language so they can account for climate adaptation in financial planning.

Despite the roadblocks, Ben remains optimistic about facing the challenges ahead.

He concludes: "We certainly don't want to claim that we have all the answers. But it's about trying to make a start, isn't it?"

Conclusion

With climate change already at the UK's doorstep, it is vital for providers of social housing to incorporate climate adaptation into their business strategies. In doing so, social landlords can ensure they are prepared to look after their tenants in a warmer world with more frequent and severe weather events. Investing in robust climate adaptation measures will also strengthen housing associations' businesses in the long term by future-proofing their asset bases.

As part of their overall climate adaptation initiatives, social landlords should also work to align their sustainability, retrofit, damp and mould, fire safety and development strategies. Doing so will enhance social landlords' climate resilience, ensuring they are poised for success amidst the backdrop of climate change.

Note: Sustainability for Housing is keen to showcase best practice on climate adaptation and share learnings with the sector. If you would like to engage with SfH on this subject, please contact us at **srs.contact@thegoodeconomy.co.uk**.