



CP10/25 – Enhancing banks’ and insurers’ approaches to managing climate-related risks – Update to SS3/19

Consultation paper 10/25

[CP10/25 – Enhancing banks’ and insurers’ approaches to managing climate-related risks – Update to SS3/19 | Bank of England](#)

Consultation response provided by the **British Geological Survey**

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Responses can be sent by email to: CP10_25@bankofengland.co.uk.

The consultation paper (CP) sets out the Prudential Regulatory Authority’s (PRA) proposals on updated supervisory expectations for banks and insurers. The proposals would help banks and insurers manage the effects of climate change on their businesses and thereby maintain the essential services they provide to the economy. Climate change is causing and has the potential to cause future impacts from ground-related hazards such as subsidence, landslides and coastal erosion. The British Geological Survey (BGS) is a world-leading geological survey and global geoscience organisation, focused on public-good science for government and research to understand earth and environmental processes.

We are the UK’s premier provider of objective and authoritative geoscientific data, information and knowledge to help society to use its natural resources responsibly, manage environmental change and be resilient to environmental hazards.

BGS is committed to research that will help produce innovative solutions aimed at slowing down the effects of a rapidly changing climate, whilst helping society to become resilient and adapt to climate change.

Society needs to be prepared for the potential impacts of these climatic changes.

- Rises in sea level coupled with increased storm event intensity will affect rates of coastal erosion, which will affect asset management close to the coast.
- Change in temperature and precipitation will affect groundwater conditions, such as soil moisture deficit, which affect rates of soil moisture recharge; these can directly affect practices such as agriculture.



With changes in temperatures, rates of precipitation, rises in sea level and the increased likelihood of weather-related hazards, it is essential to consider the impacts on processes at work within the geo-environment. The changes have the potential to impact our built infrastructure, land-management practices and agricultural activities, among other areas (BGS Research Briefing: Geohazards and climate [change](#), 2024). These effects need to be considered as part of future planning and sustainable development decisions to ensure future climate resilience.

How climate-related risks affect firms

1.11 Climate-related risks arise through two primary channels – physical risks and transition risks:

“Physical risks from climate change can be related to both specific weather events (such as heat waves, floods, wildfires and storms) and risks from longer-term shifts in climate (such as changes in precipitation, extreme weather variability, sea level rise and rising mean temperatures)”.

BGS response: The CP10/25 – Enhancing banks’ and insurers’ approaches to managing climate-related risks consultation paper clearly demonstrates physical and financial risks directly related to weather events, but it does not consider the impact that the change of climate has on geological hazard occurrence in the UK.

Changes in precipitation and temperature affect occurrence of certain geological hazards such as subsidence, compression, landslides, sink holes and coastal erosion. These hazards have the potential to cause financial loss and asset depreciation. These can be large-scale catastrophic events, such as a landslide destroying a house following a heavy rainfall event, or smaller scale long term movement, such as clay shrink-swell subsidence or compression causing cracking and structural damage over several dry years ([Harrison et al., 2024](#); [Six BGS datasets for assessing shrink–swell subsidence hazards - British Geological Survey](#); [Six ways to prepare your home for climate change related subsidence - British Geological Survey](#)). The occurrence is driven by climate conditions, and the location is driven by the susceptibility of the underlying geology.

Box A: The impact of physical and transition risks for banks and insurers.

Dimensions of climate-related risk:

“Physical risk arises from the medium to long term effect of climate change on the likelihood of a range of adverse natural events, for example severe storms, coastal or river floods, heat waves or wildfires”.

BGS response: Additionally, geohazard occurrence, such as shallow landslides, can arise from short term events such as severe storms and heavy rainfall events; or because



of longer term climate shifts in rainfall and temperature, effecting soil moisture and the water table, and occurrence of related geohazards such as clay shrink-swell subsidence, compression, deeper landslides and surface waterflooding.

Box A: The impact of physical and transition risks for banks and insurers.

Impact on banks:

“Physical risk can affect banks through their lending and investment portfolios, via both credit and market risk. For example, on the lending side, rectifying flood, damage to a house might affect the borrower’s ability to repay mortgage payments (credit risk) or reduce associated home values”.

BGS response: Flood is not the only hazard impacting investment portfolio and assets, geohazards particularly ground stability hazards such as landslide, subsidence and sinkholes are additional issues that should be considered.

Box A: The impact of physical and transition risks for banks and insurers

Impact on insurers

“Some examples of physical risk crystallising include an increasing frequency and severity of extreme weather events, impacting property and casualty insurance, or increasing frequency and severity of flooding, leading to physical damage to asset values.”

BGS response: it should be noted that an increasing frequency and severity of flooding, could, in turn, have consequential impacts such as flood erosion leading to landslide or slope failure events, leading to physical damage to asset values. Conversely, long term decreases in rainfall can lead to subsidence related insurance claims (decreased rainfall impacts soil moisture deficit and leads to increased clay shrink-swell, causing ground subsidence). This is already evident, especially the heatwaves experienced in 2003, 2006 and 2018 that led to peaks in subsidence claims. In the second half of 2022, on average there was a subsidence claim made every 15minutes (ABI, 2023).

Further information:

For further information please contact BGS enquiries at enquiries@bgs.ac.uk or the BGS policy team at BGSpolicy@bgs.ac.uk