

1. Executive summary

In 2024, the Adaptation Working Group (AWG) launched a report on [Mobilising Adaptation Finance to Build Resilience](#), making the case for scaling adaptation finance by demonstrating its relevance to financial stability, credit risk, and investment value.

This report builds on this earlier work and reflects how the AWG has transitioned from a high-level strategy to a focus on operational delivery – developing a practical toolkit for the financial services sector to integrate physical climate risks and resilience into financial decision-making across institutions, sectors, and geographies.

This report focuses on informing financial decisions by utilising high-quality data and physical risk assessments to turn risk into opportunity through the integration of data into financial decision making. It provides a cohesive framework for mainstreaming adaptation into the financial system – from granular asset-level assessments to national and institutional strategies.

The content within this report has been organised to provide a comprehensive framework for advancing the integration of climate adaptation into financial decision-making:

- **Chapter 2** sets out updates to the Aim–Build–Contingency (ABC) Framework, including its alignment with the Physical Climate Risk Appraisal Methodology (PCRAM) and a series of

case studies demonstrating practical application.

- **Chapter 3** considers the role of adaptation-inclusive transition planning, outlining approaches to embedding resilience into corporate strategies through the use of metrics, targets, and maturity assessments.
- **Chapters 4 through 6** provide practical illustrations of adaptation integration, addressing physical risk in credit modelling, sovereign credit assessments, and UK flood risk management respectively.
- **Chapter 7** then turns to systemic considerations, assessing how financial markets can more effectively price, incentivise, and scale adaptation and resilience through risk assessment, product innovation, and market mechanisms.
- **Chapter 8** highlights the importance of capacity-building by mapping training resources available to support financial institutions in strengthening their capabilities to manage physical climate risks. Collectively, these chapters provide a structured approach to embedding resilience across financial markets and ensuring adaptation is mainstreamed into supervisory and investment practices.

Key highlights include:

- **Aim–Build–Contingency (ABC) Framework Update:** The ABC Framework provides technical guidance required by the financial services sector on the ‘potential future climate states’ to be prepared for in making investment decisions

and seeking further resilience investment opportunities. This has now been refined by the AWG to strengthen how financial firms assess physical risks across time horizons. It provides clearer guidance on selecting and applying scenarios, includes practical case studies, and demonstrates linkage with the Physical Climate Risk Appraisal Methodology (PCRAM). The update stresses improving data quality, transparency, and usability, which remain barriers to robust assessments. By embedding the ABC framework into decision-making, financial institutions can better manage uncertainty, support regulatory compliance, and unlock opportunities for resilience finance.

- **Adaptation Inclusive Transition Plans:** The report sets out how firms can systematically integrate adaptation into their transition planning cycle. Building on the recommendations from the [Transition Plan Taskforce \(TPT\) Adaptation Primer](#), it recommends a four-step process (Identify risks, Set ambition, Plan actions, Implement) which aligns resilience with decarbonisation. Further guidance is provided on developing credible metrics and targets – moving beyond carbon reduction, to resilience indicators such as risk-adjusted losses, supply chain robustness, and adaptation investments. The report also includes case studies to show how firms can embed adaptation into strategies, while benchmarking initiatives highlight the maturity of current practices. This results in clearer pathways for

firms to manage climate risks holistically, while positioning adaptation as a core element of strategic planning.

- **Physical Risk & Credit Modelling:** The report demonstrates how physical climate risk assessments can be directly linked to financial outcomes such as default probabilities and loss distributions. Using a synthetic Thai asset portfolio, the analysis reflects how resilience investments reduce expected losses and lower the probability of default, thus strengthening the case that adaptation finance improves creditworthiness. By incorporating hazard data, adaptation pathways, and financial modelling, the framework reflects how climate resilience can be quantified in terms of financial risk reduction. This equips lenders, investors, and regulators with tools to recognise adaptation as both a risk mitigant and a driver of financial stability.
- **Adaptation Focused Sustainable Finance Instruments:** The AWG reviewed how adaptation and resilience can be embedded into financial products and instruments. It examined how sustainability-linked loans, blended finance, and insurance mechanisms can integrate resilience Key Performance Indicators (KPIs) and targets, linking them directly to financing costs or capital flows. The report includes case studies highlighting how support factors and incentive structures can steer investment towards resilience measures and discusses innovations such as resilience bonds and blended finance

platforms. This shows how adaptation finance can be mainstreamed by embedding resilience outcomes into the same tools which are already driving transition finance.

- **Sovereign Credit Assessments:** The growing influence of physical climate risk and adaptation efforts on sovereign creditworthiness is highlighted as empirical evidence reflects how climate-vulnerable countries face downgrades and higher borrowing costs unless adaptation measures are put in place. The report calls for credit rating agencies, investors and policymakers to systematically incorporate adaptation into sovereign risk assessments, recognising resilience investments as a factor that reduces default risk and financing costs. It also stresses the importance of policy frameworks and transparent adaptation plans in shaping investor confidence. By embedding adaptation into sovereign ratings, the financial system can create stronger incentives for governments to invest in resilience early, thus reducing systemic risks and promoting long-term stability.
- **Flood Risk Data in the UK:** Flood risk is one of the UK's largest physical climate exposures, however, there remains a significant need to enhance the quality of its data. The AWG highlights the importance of asset-level forward-looking metrics, including proposals such as Flood Performance Certificates, to capture resilience in property markets. For

flood data to be useful for decision making purposes, improved standardisation, greater transparency, and integration of forward-looking hazard modelling are essential. The report's recommendations reflect how higher-quality data could reduce systemic risk, enabling insurers to price risk more accurately, and helps investors identify adaptation needs. Improving UK flood data is regarded as a critical step to mobilise private capital towards resilience investment and strengthen insurability.

- **Climate Training Needs Assessment:** Finally, the AWG conducted a review of climate training for finance professionals, identifying significant gaps in adaptation-focused resources. A survey of practitioners found that while transition and carbon-focused training is growing, practical guidance on physical risk, hazard modelling, and adaptation finance remains limited. The report stresses the need for more hands-on, technical modules that help finance professionals apply physical risk data and resilience metrics in practice. The recommendation is for regulators, training providers, and industry bodies to expand offerings, ensuring that adaptation becomes as embedded in financial training as transition already is. This will help mainstream resilience thinking across the sector and build institutional capacity to act on climate risks. An online searchable database on relevant training can be found as part of the Session 5 guides on the CFRF section of the Bank of England website

The report addresses information gaps, training needs, and analytical frameworks required to support integration and creation of opportunities by providing modelling frameworks and financial mechanisms to incorporate climate resilience into lending, insurance, sovereign risk assessment, alongside corporate transition planning. The outputs demonstrate the financial materiality of adaptation and propose clear approaches to valuation and reward resilience in capital markets, hence addressing barriers to investment in adaptation.

Going forward, the AWG will continue to work on enhancing guidance for financial institutions, integrating the ABC framework into climate scenarios, and seek to provide recommendations to policy makers to catalyse increased flows of adaptation and resilience finance.

Acknowledgements

This paper has been developed by the Adaptation Working Group (AWG) of the Climate Financial Risk Forum (CFRF), which includes asset managers, banks, insurers, and consultants. Observers of the group included Financial Conduct Authority (FCA), Prudential Regulation Authority (PRA), and the Institutional Investors Group on Climate Change (IIGCC).

The Adaptation Working Group was chaired by Alex Kennedy, Managing Director and Head, Sustainable Finance Solutions, Adaptation and Resilience at Standard Chartered, and Cath Bremner, Partner, Partners in Performance.

We wish to thank Climate Arc for funding support for members of the technical research team – Roberto Spacey Martin and Mark Bernhofen from the University of Oxford - Environmental Change Institute (ECI).

Technical research was provided by: Peter Delaney, Tammy Tan from Standard Chartered Jason Lowe from the Met Office / University of Leeds Nicola Ranger, Roberto Spacey Martin and Mark Bernhofen, Grantham Research Institute on Climate Change and the Environment

We are incredibly grateful for the secretariat support provided by Alasdair Grainger and Alexandra Qayum at Grant Thornton

Editing and review support provided by Ingrid Holmes, Green Finance Institute and Chris Dodwell, Impax Asset Management

Please refer to individual chapters which will note its key contributors.

The Adaptation Working Group included:

Name	Organisation		
Ahmed Abdullah	Impax Asset Management	Kit Pyman	Department for Environment, Food & Rural Affairs
Alasdair Grainger	Grant Thornton UK LLP	Madeleine Rawlins	Mott MacDonald
Albertine Pegrum-Haram	Columbia Threadneedle Investments	Mark Bernhofen	Grantham Research Institute on Climate Change and the Environment
Alexander Kennedy	Standard Chartered Bank	Matthew Wright	Impax Asset Management
Alexandra CY Qayum	Grant Thornton UK LLP	Michael Harmon	Howden Group
Anne Chataigne	The Institutional Investors Group on Climate Change (IIGCC)	Michael Szczepanski	Met Office
	Morgan Stanley	Nick Molho	Aviva Investors
Ashley Edwards	UK Environmental Agency	Nicola Ranger	Grantham Research Institute on Climate Change and the Environment
Bill Donovan	Marsh		
Callum Ellis	Partners in Performance	Nigel Green	Secure Trust Bank
Cath Bremner	Impax Asset Management	Nikki Vandijk	Mott MacDonald
Chris Dodwell	Zurich Insurance	Peter Delaney	Standard Chartered Bank
Claire Parker-Harrison	Schroders	Prebhjot Kaur	City of London Corporation
Clara Mallinckrodt	Natwest	Robert Gardner	Rebalance Earth
Doug Baird	Aviva	Roberto Spacey Martin	Grantham Research Institute on Climate Change and the Environment
Elizabeth Woods	Howden Group		
Erin Owain	Howden Group	Rowan Douglas	Howden Group
Francesca Brown	Department for Environment, Food & Rural Affairs	Saru Gupta	The Institutional Investors Group on Climate Change (IIGCC)
Frankie McQueen	GIB Asset Management		
	Department for Environment, Food & Rural Affairs	Sudeshna Ray	United Nations Principles for Responsible Investment
Hamish Stewart	Howden Group		
Helen Edmundson	Schroders	Swenja Surminski	Marsh McLennan
	Green Finance Institute	Tammy Tan	Standard Chartered Bank
Holly Roberts-Harry	Met Office	Theresa Lober	Bank of England
Holly Turner	Bank of England	Tim Rowe	Financial Conduct Authority
Ingrid Holmes	Zurich Insurance	Valentina Ramirez	The Institutional Investors Group on Climate Change (IIGCC)
Jason Lowe	Zurich Insurance		
Jennifer Clark	Mott MacDonald	Vendula Dohnalova	Bank of England
Joachim Tolle	UK Environmental Agency	Veronica Valles	Morgan Stanley
John Keppel		Will Graham	Financial Conduct Authority
John Rabba		Yannick Pape	UK Environmental Agency
Katie Spooner			