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Investor Stewardship for Climate Resilience Sourcebook

A practical resource for investors to align stewardship practices with climate resilience goals

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About Cadlas

Cadlas is a technical advisory firm specialising in climate resilience financing. Its mission is to improve the quantity and quality of financing for climate-resilient economic activity and development. Cadlas works to support the allocation of capital to initiatives that reduce climate vulnerabilities and build the resilience of economies, societies and the natural world.

We are a trusted advisor to the leading global institutions shaping this agenda, including MDBs, commercial banks, investors and leading international financial sector associations. Cadlas acts as a connector of key stakeholder groups advancing the field - from governments to DFIs to investors to standard-setters.

Cadlas works with a wide range of clients and partners in the financial sector and beyond to achieve its mission through four key pillars:

- Developing clear definitions of climate resilience financing, investments and activities.
- Providing analytics and metrics to inform the improved allocation of capital for climate resilience.
- Supporting the development and uptake of innovative instruments and modalities for financing adaptation.
- Promoting effective strategy and governance for climate resilience financing within financial institutions and across the financial system.

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Executive Summary

Physical climate change impacts present growing risks and opportunities for the investment industry.

As the frequency and severity of climate hazards escalate, there is a need for investors to go beyond physical climate risk assessment and disclosure to proactively promote climate resilience through their stewardship and engagement.

This sourcebook outlines a framework for investors to diagnose their exposure to physical climate risks, prioritize engagement with the most vulnerable companies and assets, and deliver stewardship that drives the adoption of best practices in physical climate risk management and climate resilience. It sets out a logical structure that explores the following elements:

- **Physical climate change impacts as a mega-trend for the investment industry**, calling for more systemic and strategic approaches to integrating physical climate risks and climate resilience opportunities into investment stewardship approaches.
- **The relevance of climate resilience to investors' fiduciary duties and responsible investment mandates**, recognising the need for investors to stay engaged in vulnerable assets and support them in building climate resilience.
- **How investor stewardship approaches can be deployed to promote climate resilience**, both through **structured engagement** covering screening and diagnostics, tailored engagement strategies, capacity building, systemic change, and monitoring and accountability, and through **wider stewardship actions**.
- Customized **approaches for different kinds of investors** to address physical risks and opportunities across asset classes and geographies.
- **A progressive approach to implementation,** through which investors may progress from establishing foundations, to building capacity, to mainstreaming climate resilience.
- **An outline investor toolkit** mapping key resources needed for climate resilience stewardship, from risk assessment methodologies to resilience metrics to policy engagement.

This framework can help investors to fulfil their fiduciary duties to manage climate risks, capture climate resilience opportunities, and contribute to a more resilient and sustainable economy.

This sourcebook recognises and builds upon existing guidance and frameworks on physical climate risk assessment and climate resilience that has been provided by a number of investment

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industry bodies over recent years, many of which are cited in this sourcebook. It aims to advance understanding and action in this area by focusing on the crucial role of investor stewardship in not only managing physical climate risks but enhancing long-term value by contributing towards systemic climate resilience across the real economy. Collaboration across the investment industry will be critical to mobilizing the capital and influencing the corporate and policy changes required to build systemic climate resilience in the face of accelerating climate impacts.

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Physical Climate Change Impacts: A Mega-Trend for the Investment Industry

There is growing investment industry awareness of physical climate change impacts, which are increasingly shaping the global investment landscape. In 2025, the World Economic Forum reported that extreme weather events are perceived as a leading risk to the global economy, while S&P Global assessed that the world's largest companies may face annual costs of up to USD 1.2 trillion by 2050 due to physical climate risks.

As physical climate hazards intensify, investors must go beyond the assessment and disclosure of risks. This calls for the integration of proactive climate resilience considerations into their stewardship and engagement strategies. By embedding physical climate risk assessment into operations, planning, capital allocation, and strategic responses, investors can promote sustainable, long-term value creation and provide necessary capital for building climate resilience in vulnerable sectors and companies.

However, many investors currently lack guidance and tools to support stewardship for climate resilience. Collaboration among investors and stakeholders is needed to drive systemic changes in market practices, policies, and norms. Tailored stewardship approaches may be required for different types of investors, considering factors such as investor type, asset class, sector, and geography.

This sourcebook, which has been developed in consultation with leading investment firms and investment industry associations, provides a blueprint for investors on integrating physical climate risks and climate resilience opportunities into their stewardship strategies, building on existing investor stewardship resources[1].

Mindful of challenges and constraints currently faced by climate-focused initiatives, it takes a pragmatic approach that outlines practical approaches and tools that investors may deploy within existing stewardship activities, without proposing new initiatives.

Specifically, it presents:

- An outline of key responsibilities and action areas for investors to drive progress on climate resilience.
- A structured approach to diagnose exposure, prioritize engagement, and drive best practices in physical climate risk assessment, disclosure, and management.
- A proposed framework for different kinds of investors to address physical climate risks and capitalize on climate resilience opportunities across their portfolios.
- Avenues for demonstrating leadership in embedding climate resilience into investment strategies and wider ecosystems.

[1] e.g. UN PRI's Active Ownership 2.0 and Assessing Physical Climate Risk in Private Markets: A Technical Guide, UNEP-FI's Guidance on Client Engagement, and IIGCC's Climate Resilience Investment Framework

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Climate Resilience, Fiduciary Duty and Responsible Investment

Given the reality of a changing climate, climate resilience is increasingly relevant to investors' fiduciary duties. Investors must act with prudence, loyalty, and care in managing assets, which involves understanding, assessing, and mitigating physical climate risks to portfolios, as well as seeking opportunities to build resilience and align capital with a climate-adapted economy. This requires reconciling duties to manage financial risks (private goods) and systemic risks (public goods/externalities) that may affect investees and portfolios.

Responsible investment in the context of widespread physical climate change impacts requires investors to stay engaged in climate-vulnerable assets and provide stewardship towards more climate-resilient pathways. This presents a parallel with responsible investment for decarbonizing hard-to-abate sectors. Divestment from climate-vulnerable assets may exacerbate systemic vulnerabilities by denying firms and assets the capital needed to build resilience.[2]

While fiduciary duties are common to all investors, specific climate resilience strategies may differ based on risk appetite, investment mandate, time horizons, and capacity. A "common but differentiated" approach tailored to each investor's unique fiduciary context is necessary:

- *Risk appetite:* Investors with higher risk tolerance may invest in early-stage climate resilience solutions or companies in geographies with greater physical risk exposure, while those with lower risk appetite may focus on established, proven climate resilience strategies.

- *Market of operation*: Investors in markets particularly vulnerable to physical climate risks may emphasize engaging with portfolio companies to build adaptive capacity, while those in markets with advanced climate resilience policies may rely more on market-level solutions.

- *Size and capacity:* Larger investors may conduct in-depth risk assessments, develop sophisticated resilience strategies, and engage in active stewardship, while smaller investors may prioritize based on material risks and collaborate with peers or service providers to build capabilities. For instance, pension funds' long-term perspectives may be constrained by asset managers' practices.

Investor stewardship for climate resilience should be guided by common principles grounded in fiduciary duty, while recognizing that specific approaches may vary based on how investors:

[2] As detailed in IGCC's 2024 report Activating Private Investment in Adaptation

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- Integrate physical climate risk into policies, processes, and decision-making.

- Understand and mitigate material physical climate risks using robust data and scenario analysis.

- Engage with portfolio companies and managers to promote climate resilience through their governance, strategy, risk management, and disclosure.

- Identify and pursue opportunities for investments that contribute towards climate resilience.

- Monitor and report on resilience performance and stewardship outcomes.

Investor stewardship refers to the broad set of actions that investors take to protect and enhance the long-term value of the assets they manage on behalf of clients and beneficiaries.

This includes using ownership rights and influence to promote sustainable business practices that support the overall health and resilience of the financial system. Stewardship activities span the full investment chain, from asset allocation and manager selection to monitoring and engagement with portfolio companies. It may also include market-level efforts to promote sustainable practices and system resilience and may utilise tools such as proxy voting and shareholder action. Prioritising climate resilience can make climate stewardship practices more effective in general, especially in the challenging political environment currently experienced in some markets.

Defining Investor Stewardship: Example from the UK

The UK Stewardship Code defined stewardship as "*the responsible allocation, management and oversight of capital to create long-term value for clients and beneficiaries leading to sustainable benefits for the economy, the environment and society*".

This definition covers investment decision-making, monitoring assets and service providers, engaging with issuers and holding them to account on material issues, collaborating with others, and exercising rights and responsibilities.

Defining Investor Stewardship: Example from Japan

In Japan, the Government Investment Pension Fund (GPIF) has stated in its Direction and Medium-Term Initiatives of GPIF's Stewardship Activities that it promotes '*stewardship activities with consideration to sustainability such as ESG from the perspective of increasing long-term investment return*'.

It also emphasises the importance of external asset managers encouraging '*investee companies' pursuit of opportunities, risk reduction (including enhancing resilience), and information disclosure related to sustainability*'.

Within the broader umbrella of investor stewardship, investor engagement refers specifically to interactions between investors and investee companies aimed at improving corporate performance and sustainability outcomes. Engagement may take the form of dialogue and information sharing with investees, either independently or in collaboration with other institutions. Investor stewardship can play an important role in investor action on managing climate risk, as outlined in the recent Asset Owner Statement on Climate Stewardship. This sourcebook builds on those expectations to drive greater alignment between asset owners and managers in the face of accelerating physical climate risks.

Investor stewardship and engagement can both play critical roles in driving the integration of climate resilience considerations into investment practices and real-economy outcomes. Understanding

the differences between these concepts, and how they fit together in a holistic approach to active ownership, is essential for investors seeking to fulfil their fiduciary duties in the face of accelerating physical climate risks. At the portfolio level, investors can use tools like scenario analysis and physical climate risk assessment to understand their exposure to physical climate hazards and prioritize investments in companies and assets that are well-positioned to weather those impacts. They can also work to shape market norms and policy frameworks to better account for climate risk and incentivize resilience-building measures.

Investor engagement can be critical for driving company-level action on climate resilience. By using their influence as shareholders and creditors, investors can push portfolio companies to enhance their assessment, disclosure, and management of physical climate risks. These can provide mutually reinforcing levers for climate resilience integration, by supporting companies in identifying and investing in opportunities to build adaptive capacity and contribute to wider systemic resilience. This may cover portfolio alignment to mitigate systemic risks and capture opportunities, and asset-level engagement to strengthen adaptive capacity and risk management.

Asset Owner Statement on Climate Stewardship (February 2025)

The recent Asset Owner Statement on Climate Stewardship, issued by a coalition of more than 20 asset managers led by the People's Pension, Brunel Pension Partnership and Scottish Widows, underscores the pressing need for asset managers to enhance their stewardship activities and align with asset owners' long-term interests in the face of systemic climate risks. The statement notes that "given the compelling evidence of the materiality of climate change as a financial risk, managing the impacts and due consideration of related risks and opportunities becomes an essential component of investors' fiduciary duty."

The statement outlines five key principles that should guide asset managers' climate stewardship approaches:

1. Prioritizing industry/market and policy engagement
2. Leveraging collaborative initiatives for greater impact and efficiency
3. Employing a robust theory of change focused on high-impact sectors and transition plan robustness
4. Implementing a systematic approach to voting and escalation
5. Ensuring appropriate resourcing of the stewardship function

The lack of established norms for investor engagement on climate resilience, as compared to other topics such as climate mitigation or human rights, calls for a common climate resilience engagement framework that sets out clear asks and expectations for investee companies[3]. Investor engagement on climate tends to be driven by climate mitigation considerations, with climate resilience treated as a secondary add-on rather than a central focus. A key challenge for investment engagement on climate resilience is defining the problem and what "good" looks like. Benchmarking needs to be more contextualized and process-based, rather than relying solely on global or sector-wide standards.

Optimising the role of investor engagement for building climate resilience calls for a systematic approach that deploys the full range of available engagement tools and levers. No single engagement activity will be sufficient to drive the pace and scale of corporate and systemic resilience-building that is needed. Rather, investors may require a mutually reinforcing set of stewardship tools and to work collaboratively with their peers to send clear and consistent resilience signals to the market. In addition, effective engagement on climate resilience may involve engaging with different teams within investee companies – for instance, risk or insurance teams as opposed to investor relations or ESG teams.

A holistic and systematic approach that recognizes stewardship and engagement as two sides of the same active ownership coin can enable investors to seize the opportunities and tackle the challenges presented by the physical impacts of climate change. In doing so, they can fulfil their fiduciary obligations to clients and beneficiaries while catalysing the transition to a more resilient and sustainable global economy. Both individual investor action and collective initiatives are necessary to advance climate resilience, with collective efforts (e.g. NGFS initiatives, investor-led sector roadmaps) having greater influence on policy and market norms. The framework proposed in this sourcebook provides a roadmap for investors to develop and implement such an approach, organized around five key pillars as set out below.

[3] Building as appropriate on existing guidance such as IGCC's Investor Expectations of Companies' Physical Climate Risk Management and Resilience (2024)

Evolving Sustainability Disclosure Requirements: Implications for Climate Resilience

The global regulatory environment for climate risk disclosure is rapidly evolving, placing asset owners and managers in a pivotal position to ensure investee companies are prepared for emerging requirements around physical climate risks and resilience strategies. Regulatory initiatives are proliferating worldwide, with the International Sustainability Standards Board (ISSB) developing comprehensive baseline standards endorsed by the G20 that address governance, strategy, risk management, and metrics for physical climate risks, while regional frameworks like the European Union's Corporate Sustainability Reporting Directive (CSRD) will mandate disclosure for nearly 50,000 companies and the UK's Sustainability Disclosure Requirements (SDR) will impose similar obligations on listed firms and financial institutions.

Although the US Securities and Exchange Commission's proposed climate disclosure rule faces uncertainty, the broader global momentum toward standardized climate risk reporting continues to build upon foundational voluntary frameworks like the Task Force on Climate-related Financial Disclosures (TCFD), which established expectations for companies to assess and report on strategic resilience under different climate scenarios. These evolving standards create both compliance challenges and engagement opportunities for investors, who can play a crucial role in promoting consistent, decision-useful disclosures that support effective climate resilience planning across investment portfolios and the broader financial system.

Five Pillar Structure for Investor Engagement on Climate Resilience

Screening & Diagnostics	• Assess asset/company exposure to physical climate hazards as a key entry point on climate resilience, using tool such as forward-looking scenario analysis, geospatial mapping to understand vulnerability at the asset, company, portfolio, sector and system levels. • Explore the role of expanded and inclusive models for physical climate scenario analysis including short-term risks, second- and third-order risks (e.g. supply chain risks) and tail risks, to build up a picture of the materiality physical climate risks across the portfolio and connecting to vulnerability and levels of ambition on engagement. • Build up a robust evidence base to inform strategy and engagement, benchmark physical climate risk assessments and selectively prioritise investees for engagement e.g. Those that have been affected by extreme weather events. • Identify and appraise climate resilience investment opportunities including anticipating potential maladaptation risks.
Tailored Engagement Strategies	• Develop differentiated approaches to engage investees and external managers on building climate resilience. Clarify what specific capacities different investors may need to collaborate at the industry level, broken down by sector to support tailored engagement strategies and help investors to frame and prioritize climate resilience topics. • Establish a foundation of climate resilience expectations for all portfolio companies and then prioritizing the highest risk and most influential firms for in-depth dialogue, including by defining clearer targets and metrics by sector and asset type to guide engagement. A guiding example is IGCC's Investor expectations of companies' physical climate risk management and resilience pilot guide. • Base tailored engagement strategies on a company's unique climate risk profile and potential to drive broader market shifts.

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Capacity-Building & Implementation	• Support investees and managers with the knowledge, tools, and resources needed to put climate resilience strategies into practice, including through training on climate risk assessment methodologies, best practices in climate resilience planning and capital allocation, and peer learning and collaboration to accelerate the dissemination of proven resilience solutions. • Support the integration of climate resilience into investees' transition planning, using tools such as the Transition Plan Taskforce's Guidance on Climate-ready Transition Plans, and explore links with nature-related interdependencies, potential synergies and action pathways. • Examine companies' transition/climate resilience strategies and sector-specific climate resilience requirements for the purposes of investor prioritisation on stewardship and engagement, tying in physical risk assessment and providing a basis for ambition-setting on climate resilience.
Systemic Change-Making	• Use investor influence and platforms to drive shifts in market rules, industry norms, and public policies (e.g. Spatial planning, water management, building codes etc.) to create an enabling environment for scaling up investment in climate resilience. • Engage at the wider systemic level, beyond the asset and explore opportunities for greater collaboration between investors and investor initiatives on climate resilience[4]. • This can include advocating for consistent and mandatory disclosure standards, participating in investor collaborations to set sector-wide resilience expectations, and engaging policymakers to promote incentives and remove barriers to resilience investments.
Monitoring & Accountability	• Track and disclose performance against climate resilience goals and targets at the asset, portfolio, and system levels. • Identify metrics and indicators to assess vulnerability and resilience over time, monitoring investee and manager alignment with climate resilience expectations, and transparently reporting on progress to stakeholders, while ensuring that investees are equipped to align with emerging climate risk disclosure regulations.

[4] AIGCC's analysis on Financing Asia's National Adaptation Plans (2025) provides a valuable example of systemic engagement.

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Beyond Engagement – Active Stewardship Tools for Climate Resilience

Investors can go beyond engagement to deploy a range of active stewardship tools to support investee action on climate resilience. Investors may have access to a range of active stewardship tools beyond direct engagement to drive investee action on climate resilience. Effective stewardship also requires careful consideration of jurisdictional contexts and the balance between decarbonisation and climate resilience priorities.

However, several challenges currently limit the deployment of these tools:

1. *Case for materiality*: Companies often underestimate climate risk compared to investors, necessitating a continuous emphasis on the financial relevance of physical climate risks through concrete examples and valuation impacts.

2. *Language challenge*: Stewardship action on climate resilience can be more effective when framed around business viability and risk management rather than climate targets or sustainability objectives.

3. *Practice gap:* The limited number of companies with robust resilience strategies highlights the need for investor influence and clearer guidance on best practices.

Shareholder voting remains an underutilized tool for climate resilience stewardship despite the growing financial impacts of physical climate risks. Investors note a lack of voting opportunities addressing companies affected by physical climate events, suggesting untapped potential to use voting to drive climate resilience action across various proposal types, from director elections to executive compensation and emerging advisory votes on climate strategies.

Shareholder resolutions can be an important tool for pushing for clarity on good practices. Filing shareholder resolutions allows investors to place specific resilience issues before shareholders and management, but a key challenge identified is the lack of clarity around what constitutes "good" corporate action on physical climate risk. Few companies currently have robust resilience strategies, and those that do often developed them through direct experience with climate disasters. This creates an opportunity for shareholder resolutions to push for enhanced disclosure and planning, particularly by highlighting the financial relevance of physical risk through examples like the 2024 California wildfires that demonstrate the value of preparedness. Effective resolution strategies may benefit from framing resilience as essential for business viability rather than using explicit climate or ESG language, making the business case more accessible to a broader range of shareholders.

The Stewardship-Engagement Ecosystem – Lessons from the 2024 Proxy Season

The 2024 proxy voting season highlighted the interconnected nature of investor stewardship activities. PRI analysis[1] of over 850 ESG-related resolutions found that while overall support declined, investors are using other levers, such as proposal withdrawal agreements, to drive corporate sustainability action. This approach could be applied to climate resilience issues like physical risk disclosure or climate resilience investment. The analysis also emphasized the importance of consistency between investors' voting policies and company engagements to send strong stewardship signals. Investors should establish explicit climate resilience voting policies and regularly communicate these expectations to portfolio companies.

Another key theme was the critical role of coordination between asset owners and managers in effective stewardship, as research showed growing misalignment on climate-related voting issues. Asset owners may need to work closely with managers to ensure stewardship policies and practices align with their climate resilience priorities and expectations.

Board Service provides an avenue for integrating climate resilience into fiduciary duty. Board representation provides the most direct mechanism for influencing investee strategy on climate resilience. Importantly, climate resilience oversight can be positioned as part of standard fiduciary duty rather than requiring explicit climate framing. Board members can advocate for treating climate risk assessment and resilience strategy as fundamental business requirements. This approach—focusing on assessing risks and developing strategies to address them—can be more effective than positioning resilience as a climate initiative, particularly in jurisdictions or companies where climate framing might face resistance. Service on audit, risk, or strategy committees provides specific opportunities to ensure physical climate risks receive appropriate attention in enterprise risk management and strategic planning processes.

The use of strategic litigation as a stewardship tool for climate resilience remains largely theoretical at present. Climate-related litigation specifically focused on climate resilience, or specifically physical climate risk management failures, remains limited in practice. While legal theories around fiduciary duty or disclosure failures could potentially apply to inadequate climate resilience preparation, established precedents are scarce. More commonly, investors support regulatory frameworks that enhance physical climate risk disclosure requirements, recognizing that consistent standards could help address the current lack of clarity around best practices.

Approaches to investor stewardship for climate resilience may need to be customised to reflect the different operating environments, mandates and business models of different kinds of investors.

This customisation may be based on a number of factors, namely asset class, sector, geography and investor type. Within its overarching structure, this sourcebook provides detailed guidance for different kinds of investors on how to tailor and operationalize climate resilience stewardship based on their unique mandates, strategies, and positioning.

Asset class is an important consideration in the customisation of investor stewardship. Approaches may be tailored based on the asset classes that a given investor has in its portfolio.

- Infrastructure & real estate may be more straightforward for investors to assess for physical climate risk vulnerability and climate resilience stewardship, as such assets are typically easier to geo-locate for physical climate risk screening and assessment. Approaches such as the PCRAM tool, developed by the Coalition for Climate Resilient Investment (CCRI) and currently managed by IIGCC, may also facilitate such assessments for infrastructure assets. Due differentiation can be made between new build and retrofit investments, which may require different kinds of assessment. For equity investments in infrastructure funds or real assets, engagement may involve asset managers regarding climate resilience plans, and integration of climate resilience into asset management practices rather than corporate governance structures.

- Corporates: Assessing physical climate risks and resilience options in complex corporate value chains may require differentiated approaches by sub-asset class and ownership structure. For listed equities, engagement may involve incorporating resilience metrics into proxy voting guidelines, filing shareholder resolutions, and advocating for climate-competent boards, with the depth of engagement calibrated to company size and resources. Privately held companies may allow for more direct investor influence on climate resilience strategies through concentrated ownership, board seats, and management engagement, but may face challenges in balancing resilience with growth priorities. The approach and resources required may differ based on the company's ownership structure, size, and resources, with public companies subject to more standardized disclosure and governance requirements, while private companies allow for more bespoke, hands-on engagement but may have more constrained resources for climate resilience investments.

- Sovereigns and sub-sovereigns may require nuanced engagement and stewardship, especially in relation to climate-vulnerable countries. Time horizons should be taken into account, as while long-term physical climate risks may impair the creditworthiness of some countries (e.g. small island

developing countries), the shorter-term dynamics (e.g. tourism revenues, climate shocks, fiscal and political conditions) may still present opportunities despite long-term concerns. There are particular gaps around stewardship and engagement tools at the sovereign level, although processes such as the IMF's Article IV assessments (which now typically mainstream climate risk considerations) and initiatives such as ASCOR may provide potential entry points for engagement on physical climate risks and climate resilience actions.

- Sector considerations: climate resilience may require different prioritization than mitigation focused on high-emitting sectors. Consider a diverse set of at-risk sectors based on portfolio composition and geographies. For example, Ceres' work on water risk focuses on food, beverage, technology, and apparel sectors with high water dependencies[5].

Geographic considerations: physical climate risk data availability may vary across developed and emerging markets. Investors must navigate regulatory environments ranging from advanced (e.g. the EU sustainable finance regime) to limited (developing countries with minimal sustainability frameworks). Stewardship practices may need to account for these differing contexts.

[5] Companies are making progress on water management, but new report calls for greater action to ensure sustainable water supplies | Ceres: Sustainability is the bottom line

Innovative Methodologies for Climate Resilience Financial Metrics

Cutting across these asset class-specific approaches, new methodologies are emerging to support more sophisticated evaluation of climate resilience investments. Cadlas is developing a framework of financial performance metrics designed for broad application across investor types, enabling both asset managers and quantitative analysts to integrate climate resilience considerations into investment decision-making.

This cross-applicable methodology provides a standardized approach to quantifying the financial dimensions of climate resilience, supporting more robust stewardship conversations grounded in financial materiality rather than purely qualitative assessments.

Customisation by investor type is a final and important consideration for targeted stewardship for climate resilience. Each major investor type may require tailored guidance that equips them with practical tools to apply appropriate climate resilience stewardship through tangible actions within their unique contexts. As detailed below, this sourcebook provides guidance and illustrative examples on:

- Relevant sources of climate risk exposure and resilience opportunity.

- Approaches to conducting physical climate risk screening and climate resilience opportunity assessments.
- Tactics for engaging investees and external managers to drive climate resilience integration.
- Strategies for building internal and external capacity on climate resilience investing.
- Levers for influencing systemic changes to support climate resilience across the financial system.
- Methods and metrics for monitoring resilience performance and aligning with disclosure expectations.

Pension Funds are uniquely positioned to drive the climate resilience agenda, given their long-term investment horizons, significant asset holdings, and fiduciary duties to protect and enhance the retirement security of their beneficiaries. As universal owners with diversified portfolios, pension funds are exposed to systemic risks posed by climate change across sectors and geographies.

- Leverage long-term horizons, significant assets, and fiduciary duties to drive the climate resilience agenda.
- As universal owners, manage systemic climate risks through market influence and corporate engagement.

[6] For example, as recently explored by Singapore's sovereign wealth fund GIC: Sizing the Inevitable Investment Opportunity: Climate Adaptation

Sovereign Wealth Funds (SWFs) are long-term investors with intergenerational mandates that have strong incentives to manage systemic risks posed by climate change and to seize opportunities to shift to a climate-resilient economy[6].

- Harness influence and capital to finance resilience, aligned with long-term, intergenerational mandates.
- Engage portfolio companies on physical climate risk management, including through collaborative efforts[7].

Insurance companies are significant asset owners who play a pivotal role in advancing climate resilience due to their dual exposure as both institutional investors managing extensive portfolios and as underwriters directly impacted by physical climate risks.

- Manage climate risk exposure as both asset owners and underwriters through pricing and new market development.
- Integrate resilience into investment strategies and underwriting practices; develop products incentivizing climate resilience across clients and investees.
- Apply specialized risk expertise to support investee resilience through enhanced analytics, guidance, and resilience valuation.

[7] e.g. One Planet Sovereign Wealth Funds | The purpose of the One Planet Sovereign Wealth Funds Framework is to accelerate the integration of climate change analysis into the management of large, long-term and diversified asset pools.

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Asset managers come in various forms, each with different investment strategies, risk management approaches, and areas of expertise, thus requiring tailored approaches to stewardship for climate resilience.

- Passive asset managers, despite having less scope for deep bilateral engagements than their active peers, can still wield significant market influence by signalling their expectations and collaborating with other stakeholders to establish climate resilience as a mainstream business imperative. They can:
    - Drive adoption of market-wide resilience standards and practices, leveraging long-term orientation and broad exposure
    - Engage key stakeholders (index providers, initiatives, systemically important issuers) to mainstream climate resilience.
- Active asset managers are stewards of capital with discretion over portfolio construction and security selection. They have both the ability and the duty to engage deeply with investee companies on building climate resilience. They can:
    - Establish a baseline expectation for all portfolio companies to assess and disclose their exposure to physical climate risks, pushing for adoption of best practice.
    - Utilise discretionary mandates and deep engagement to drive company-level climate resilience.
    - Calibrate engagement across high-risk holdings; advance market standards through voting, capacity-building, and collaborative efforts.

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Customising Investor Engagement Strategies by Investor Type

Framework Area	Passive Asset Managers	Active Asset Managers	Real Assets and Infrastructure Asset Managers	Private Equity (inc. Venture Capital) Asset Managers
Screening & Diagnostics	Assess portfolio exposure to PCRs and identify opportunities for systemic resilience Engage with index providers to incorporate PCR and resilience metrics	Conduct in-depth analysis of PCR and resilience opportunities to identify investments with systemic impact Integrate resilience into investment decision-making for improved real economy outcomes	Conduct detailed assessments of asset exposure and vulnerability to PCRs, identifying opportunities for building resilience Prioritise assets and projects that align with improved real economy outcomes	Integrate PCR and resilience into due diligence, identifying investments with systemic impact Prioritise companies and technologies offering innovative resilience solutions aligned with positive real-world outcomes
Tailored Engagement Strategies	Collaborate with stakeholders to develop standards for integrating PCRs into passive strategies for improved real economy outcomes Engage with companies to encourage improved PCR disclosure and management to contribute to systemic resilience	Engage directly with companies to encourage PCR management and invest in resilience leaders to prioritizing improved real economy outcomes Develop company-specific engagement plans	Engage with project stakeholders to address PCRs in asset design and operation, setting objectives that contribute to achieving common goals Actively collaborate with local communities and organizations on context-specific resilience solutions for improved real economy outcomes	Engage with portfolio companies to develop and implement resilience strategies and plans, providing guidance and resources to scale up solutions for improved real economy outcomes Set objectives that align with best practices e.g. Active Ownership 2.0
Capacity-Building & Implementation	Develop and share knowledge and tools for integrating PCRs into passive strategies, emphasising outcome-oriented approaches	Build internal capacity on PCRs and resilience, emphasising outcome-oriented approaches Develop and offer specialised resilience-focused products and	Build internal capacity on PCR assessment and resilience planning, emphasizing outcome-oriented approaches	Build internal capacity on PCR assessment, resilience strategy, and impact measurement, emphasising outcome-oriented approaches

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Framework Area	Passive Asset Managers	Active Asset Managers	Real Assets and Infrastructure Asset Managers	Private Equity (inc. Venture Capital) Asset Managers
	Support the development of resilient index products and PCR metrics	strategies, collaborating to amplify impact and share costs	Develop and implement asset-level resilience strategies and plans for improved real economy outcomes	Develop and implement portfolio-level resilience strategies that build resilience for improved real economy outcomes
Systemic Change-Making	Advocate for widespread adoption of climate resilience indices and benchmarks, promoting policies and norms that support positive real-world outcomes Actively participate in industry initiatives to drive systemic change and build resilience, sharing costs and amplifying collective efforts	Collaborate with stakeholders to advocate for policies and market incentives supporting resilience and the achievement of positive real-world outcomes Actively participate in industry initiatives, promoting the alignment of best practices e.g. Active Ownership 2.0	Collaborate with stakeholders to develop and finance resilient infrastructure projects, promoting the scaling of specific market/sector resilience efforts Actively advocate for policies and incentives supporting the mainstreaming of resilience, e.g. Active Ownership 2.0	Actively collaborate with stakeholders to invest in transformative resilience solutions, sharing costs and amplifying the impact of efforts Advocate for policies and incentives supporting resilience innovation and entrepreneurship, e.g. Active Ownership 2.0
Monitoring & Accountability	Monitor and report on portfolio resilience performance, capturing the management of PCR and the contribution to achieving improved real economy outcomes Regularly review and update strategies based on trends, best practices, and stakeholder feedback, ensuring alignment with the evolving stewardship landscape	Monitor and report on portfolio and investment resilience performance, capturing the management of PCRs risks and the contribution to achieving improved real economy outcomes Regularly review and update strategies based on performance data, trends, and stakeholder feedback, ensuring alignment with the evolving stewardship landscape	Monitor and report on asset and project resilience performance, capturing the management of PCRs and the contribution to enhancing community and ecosystem resilience and improved real economy outcomes Regularly review and update strategies based on performance data, trends, and stakeholder feedback, ensuring alignment with the evolving stewardship landscape	Monitor and report on portfolio company resilience performance and impact, capturing the management of PCRs and the contribution to developing and scaling resilience solutions for improved real economy outcomes Regularly review and update strategies based on performance data, trends, and stakeholder feedback, ensuring alignment with the evolving stewardship landscape

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Engagement Case Study | State Street Investors[8] | Passive Asset Management

Passive asset managers face unique challenges in addressing climate resilience while maintaining tracking to underlying indices. This case demonstrates how quantitative climate resilience metrics can be integrated into index-aligned strategies that satisfy both climate objectives and tracking error constraints.

Context: A UK intermediary sought a climate-focused equity strategy addressing both decarbonisation and climate resilience while maintaining index alignment. The investor customized State Street's Sustainable Climate Equity Strategy with a modest tracking error (0.50%) to the MSCI ACWI Index. This included an explicit **adaptation score target** of ≥0.15 (Z-score) versus parent index that integrated, along with other indices, into an improved overall sustainability (R-Factor Score ≥0.15 Z-score)

Pillar	State Street Investors Practice
1. Screening & Diagnostics	Integrated physical climate risk assessment into investment policies through adaptation scoring, and implemented systematic portfolio assessment using quantitative metrics to identify and manage high-risk exposures
3. Capacity-Building & Implementation	Developed a specialised product that embeds resilience criteria while maintaining desired index characteristics

This approach demonstrates how passive managers can move beyond basic engagement to systematically integrate climate resilience considerations into product development and index construction while respecting the tracking constraints inherent to passive management.

[8] State Street Global Advisors: The Climate Files - Case Studies on Climate-Thematic Equity and Fixed Income Investment Solutions

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Engagement Case Study | Savills Investment Management | Embedding Climate Resilience Through Active Management of Real Estate Assets[9]

Context: Savills Investment Management is a UK-headquartered real estate investment manager with €26.2 billion AUM (as of end 2024), operating across the UK, Europe and Asia-Pacific. In 2024, it released a dedicated *Approach to Climate Resilience*, committing to systematically embed climate resilience into its real estate strategies. Recognising the material risks posed by climate change—including heat stress, flooding, and operational disruption—Savills aims to go beyond net zero and contribute positively to nature and community resilience. This case illustrates a full-cycle integration of resilience aligned with investor stewardship best practices.

Pillar	Savills IM practice
1. Screening & Diagnostics	Conducts asset-level physical climate risk screening during acquisition using scenario analysis and local climate projections (e.g. heat stress modelling for Sky Homes in Valencia).
2. Tailored Engagement Strategies	Integrates climate risk in product development (e.g. sectoral screening); collaborates with tenants through green leases and ESG-aligned tenancy reviews; engages occupiers on climate resilience actions.
3. Capacity-Building & Implementation	Embeds ESG clauses in property management agreements; uses a mandatory sustainable development checklist on all renovation projects to guide climate resilience action.
5. Monitoring & Accountability	Requires quarterly and annual reporting on physical climate risks and climate resilience progress through risk scorecards and fund committee oversight mechanisms.

[9] Savills Investment Management: Embedding climate resilience throughout the investment life cycle | PRI

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Level 1

Establish the Foundation

(1-2 years)

Work with investees to assess physical climate risks across their assets, support development of necessary in-house knowledge for risk assessment and reporting, and collaborate to define appropriate climate performance indicators and targets for physical risk reduction.

Focus on engaging with key transaction moments such as initial offerings, credit negotiations, and due diligence. Incorporate physical risk assessments in pre-deal questionnaires, establish climate sections in data rooms, and embed basic resilience requirements in preliminary term sheets to make climate resilience part of standard

Level 2

Build Capacity and Alignment

(2-4 years)

Encourage detailed climate risk assessments while providing technical support, deliver training and resources to effectively implement resilience frameworks, and monitor progress on physical climate reporting while encouraging enhanced disclosure of financial implications.

Leverage transaction moments with greater influence and stronger terms: covenant reviews, amendments, refinancing, and capital calls. Implement material adverse change clauses for climate events, adaptation requirements tied to disbursements, and resilience-linked margin adjustments to create financial incentives within transaction structures

Level 3

Mainstream and Lead

(4+ years)

Support integration of climate resilience into all investment and management practices, help scale up resilience approaches across entire portfolios while establishing leadership in sustainable practices, and advance adoption of best-practice reporting frameworks to showcase performance to stakeholders and policymakers.

Integrate resilience directly into transaction economics through performance calculations, exit preparations, and structured financing. Develop resilience-linked bonds with KPI triggers, adaptation reserve accounts, and exit valuation methods that quantify adaptation premiums, capturing resilience value in the core financial economics of the portfolio

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Progressive Approach to Implementation

Using a structured *maturity model* approach can acknowledge investors' varied starting points while providing clear pathways for progression.

This approach recognizes that effective climate resilience integration requires different strategies based on investor characteristics, constraints, and opportunities. This approach allows investors to begin with manageable actions appropriate to their current capabilities while establishing a clear pathway toward more comprehensive resilience integration.

The maturity model establishes three progressive levels of implementation that can be tailored to each investor type:

Asset Class Application: Infrastructure

The infrastructure sector faces unique challenges and opportunities in assessing and managing physical climate risks. With long asset lifespans, geographical immobility, and critical societal functions, infrastructure investments require thoughtful climate resilience planning. The progressive approach outlines how investors can systematically advance climate resilience capabilities in their infrastructure portfolios over time, whether they invest directly in physical assets or in companies that own and operate them.

For direct infrastructure investors, the progressive approach involves gradually embedding climate resilience considerations into their core asset management and operational practices. This may include conducting asset-level vulnerability assessments, developing site-specific adaptation plans, and implementing resilience measures such as hardening critical components or improving emergency response capabilities. By proactively managing physical climate risks, direct investors can help preserve asset value, maintain operational continuity, and potentially unlock new opportunities in resilience-focused infrastructure projects.

For investors in listed infrastructure companies, the progressive approach focuses on engaging with these firms to enhance their climate resilience management practices and disclosures as part of their overall stewardship activities. This could involve advocating for companies to align with emerging infrastructure resilience standards, integrate climate risk into their enterprise risk management systems, and provide transparent reporting on their adaptation strategies and progress. Through active ownership, investors can help drive industry-wide improvements in resilience while also mitigating risks and identifying opportunities in their infrastructure company holdings.
Beginning with foundational assessment tools and gradually advancing to comprehensive integration, both direct and indirect infrastructure investors can progressively strengthen the climate resilience of their portfolios. This may deliver several strategic advantages:

- Value preservation through systematic identification and mitigation of physical climate risks that could otherwise lead to asset impairment, operational disruption, or reduced returns

- Competitive differentiation as resilience capabilities mature, particularly as institutional investors increasingly prioritize climate risk management in manager selection and capital allocation decisions

- Investment opportunity identification in climate resilience-focused infrastructure, from flood protection systems to climate-resilient transportation networks, that can deliver both societal benefits and financial returns.

- Regulatory preparedness as disclosure requirements and physical risk management expectations for infrastructure investors and owners continue to evolve globally

By proactively advancing climate resilience practices in their infrastructure investments, whether through direct asset management or active company engagement, investors can position themselves to navigate the challenges and seize the opportunities associated with the physical impacts of climate change. Collaboration and knowledge-sharing between direct investors, infrastructure companies, and the broader investment community will be critical to drive sector-wide resilience improvements.

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Level 1

Establish the Foundation

(1-2 years)

Assess infrastructure portfolio's exposure to physical climate risks such as sea level rise, extreme weather events, and temperature changes

Develop a comprehensive assessment framework to evaluate infrastructure assets' vulnerability to climate risks and potential for resilience enhancements

Identify opportunities to invest in climate-resilient infrastructure projects, such as flood defences, water management systems, and energy-efficient transportation networks

Level 2

Build Capacity and Alignment

(2-4 years)

Engage with portfolio companies and external managers to raise awareness of climate risks and opportunities in the infrastructure sector

Provide guidance and resources to support the integration of climate resilience considerations into infrastructure project design, construction, and operation

Example: Develop a "Resilience Scorecard" tool to assess and monitor the climate resilience of infrastructure investments across the portfolio

Establish partnerships with technical experts and industry initiatives to build internal and external capacity on climate-resilient infrastructure

Level 3

Mainstream and Lead

(4+ years)

Integrate climate resilience criteria into all infrastructure investment decisions, aligning with industry best practices and standards

Advocate for policy and regulatory changes that incentivize investment in climate-resilient infrastructure and improve the enabling environment for adaptation

Collaborate with industry peers and stakeholders to develop standardized metrics and methodologies for assessing and reporting on the climate resilience of infrastructure assets

Share knowledge and insights on climate-resilient infrastructure investing to drive sector-wide adoption of best practices

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Progressive Approach Application: Pension Fund

Level 1: Foundation Building

Integrate physical climate risk assessment into investment beliefs, policies, and manager due diligence

Join collaborative investor initiatives to build capacity and share engagement resources

Develop proxy voting policies that systematically support climate resilience disclosure requests

Frame board oversight of physical climate risks as core to fiduciary duty rather than as a climate initiative

Level 2: Systematic Implementation

Conduct portfolio vulnerability assessment, prioritizing most material exposures

Target engagements with high-risk companies and external managers

File shareholder resolutions requesting enhanced physical risk disclosure for highest-risk holdings

Seek board representation opportunities where significant ownership stakes exist

Implement monitoring and reporting systems aligned with ISSB S2 standards

Level 3: Strategic Transformation

Embed climate resilience across asset allocation, including targeted investments in resilient infrastructure

Use voting power to support adaptation-focused proposals and oppose directors at companies with inadequate resilience strategies

Engage policymakers and regulators to promote a resilience-positive enabling environment

Position physical risk expertise in board nominations for key portfolio companies

Demonstrate leadership in collaborative initiatives defining "good practice" in resilience

Characteristics

- **Risk Appetite:** Varies based on client mandates and product offerings, but generally constrained by the need to track underlying indexes
- **Market of Operation:** Primarily public markets across geographies and sectors, with growing allocations to ESG-oriented funds
- **Size and Capacity:** Increasingly dominated by large players like

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Progressive Approach Application: Active Asset Manager

Level 1: Foundation Building

Train analysts and portfolio managers on assessing physical climate risks and opportunities

Integrate resilience factors into valuation models, due diligence, and portfolio reviews

Develop proxy voting approach that prioritizes business continuity and adaptation planning

Focus engagement on companies demonstrating poor physical risk awareness

Level 2: Systematic Implementation

Optimize portfolios to mitigate outsized climate risks and capture resilience alpha

Engage management teams to drive climate risk disclosure and adaptation strategies

File targeted shareholder resolutions demanding specific adaptation investments in high-risk sectors

Leverage concentrated positions to push for board representation or resilience committees

Level 3: Strategic Transformation

Launch specialized funds targeting adaptation and resilience themes

Contribute domain expertise to develop physical risk modelling and valuation methodologies

Secure board positions at strategic holdings to drive resilience integration

Lead collaborative efforts to define and promote sector-specific resilience benchmarks

Characteristics

- **Risk Appetite:** Moderate to high, depending on specific strategies and time horizons, with more ability to concentrate positions
- **Market of Operation:** Public and private markets globally, with greater sector and geographic specialization
- **Size and Capacity:** Highly variable, from boutique firms to large diversified houses, with strong reliance on in-house research

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Progressive Approach Application: Passive Asset Manager

Level 1: Foundation Building

Develop proxy voting policies that support climate resilience proposals

Engage index providers to enhance physical risk assessments and incorporate resilience factors

Join collaborative investor initiatives focused on defining resilience metrics and best practices

Frame resilience voting in business continuity terms rather than explicitly climate language

Level 2: Systematic Implementation

Assess portfolio exposure to chronic and acute physical risks under different climate scenarios

Identify and engage carbon-intensive firms with greatest potential impact on index resilience

Develop systematic proxy voting approach that evaluates director competence on physical risk management

File or co-file shareholder resolutions targeting improved disclosure from high-risk index constituents

Level 3: Strategic Transformation

Develop climate resilience-themed indexes and investment products

Participate in industry initiatives to drive convergence around resilience metrics and methodologies

Use significant ownership positions to secure board representation at critical companies

Demonstrate leadership in collaborative initiatives defining sector-specific resilience benchmarks

Characteristics

- **Risk Appetite: Varies based** on client mandates and product offerings, but generally constrained by the need to track underlying indexes
- Market of Operation: Primarily public markets across geographies and sectors, with growing allocations to ESG-oriented funds
- Size and Capacity: Increasingly dominated by large players like BlackRock and Vanguard, with significant potential influence over index constituents

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There is a need for a clear and practical set of tools – for both investors and investees – to support the advancement of investor action on stewardship for climate resilience.

Climate stewardship tools that already exist tend to focus on climate mitigation, and investors do not generally have access to tools that provide clarity on how climate resilience can feature in investor stewardship. Current definitions and concepts around climate resilience are often understood and applied differently across the investment industry. Stewardship and engagement tools for climate resilience should be able to be slotted into existing processes, complementing and leveraging existing tools[10] while filling current gaps in the landscape. They should enable standardised asks for investee across sectors and geographies, with potential for further tailoring according to needs.

Screening & diagnostics tools may support physical climate risk assessment, the use of physical climate risk and climate resilience impact metrics for benchmarking investments, and the application of climate scenarios. These can help address concerns about the quality and reliability of physical climate risk data, and difficulties in identifying priority sectors or companies due to data gaps, for example on sector- or geography-specific supply chain impacts, resulting in fragmented assessments that do not capture sector- or company-specific nuances or lead towards holistic decision-making.

[10] For example, the Ceres Investor Water Toolkit provides a comprehensive set of resources to support investor water stewardship

Topic	Tools
Physical Climate Risk Assessment	• Guidance on methodologies and approaches to climate risk screening for client portfolios and identification of opportunities to invest in climate resilience solutions, including the use of publicly available data (recognising its limitations for use in climate resilience assessments). • Climate risk assessment methodologies and data sources relevant for long-term, diversified portfolios • Training and guidance on climate risk integration for trustees, investment staff, and external managers • Guidance on selecting and monitoring climate risk analytics and service providers.
Benchmarking & Metrics	• Development of consistent physical climate risk metrics and climate resilience impact metrics to inform early-stage investment decision-making • Benchmarking of physical climate risk assessment at the investment-level to facilitate consistent assessments across portfolios
Use of Climate Scenarios	• Practical methodologies and approaches for applying scenario analysis on portfolios, leveraging authoritative external sources such as NGFS climate scenarios[11] • Guidance / handbook on scenario analysis based on publicly available data, to begin building a foundation for setting investment strategy and engagement.

[11] NGFS Scenarios Portal

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Tailored engagement tools may support the development and application of customised engagement strategies, investee leadership on climate resilience, the financial valuation of climate resilience benefits and capital allocation. Sovereign assets may require specific kinds of engagement approaches.

Topic	Tools
Engagement Strategies	• Customised approaches for engaging investees and external managers on building climate resilience, including tailoring at the use-of-proceeds level. • Company-specific engagement strategies for clients to influence investees on climate resilience, reflecting a company's unique climate risk profile and potential to drive broader market shifts. • Tailored strategy blueprints and best practice guides on climate resilience engagement
Investee Leadership	• Guidance on establishing in-depth dialogue on climate resilience practice and capacity building with influential firms • Blueprints for dialogues between investors and high priority companies • Guidance on integrating climate resilience into corporate transition plans
Financial Valuation	• Focused methodologies for translating physical climate change impacts and climate resilience benefits into financial terms – to address the persistent misperception that climate resilience investments do not deliver financial returns • Guidance on integrating such analysis into valuation models
Capital Allocation	• Guidance and methodologies on capital allocation to support climate resilience action, including e.g. risk ratings, pricing adjustments and CAPEX/OPEX allocation • Capital allocation decision-making framework
Sovereign Engagement	• Focused tools for engaging with sovereign investor relations teams (e.g. MoF debt management offices) on country-level climate resilience assessments and planning

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Capacity building & support tools focus on supporting investees and managers with knowledge and resources needed to put climate resilience into practice.

Topic	Tools
Training Resources	• Training modules on physical climate risk assessment methodologies, providing guidance on best practices in climate resilience planning and capital allocation • Guides and case studies on best practices • Case study compendium on corporate climate resilience
Network Building	• Blueprints for fostering peer-to-peer learning and collaborative opportunities to accelerate proven resilience solutions. • Resilience solution provider database to connect companies with leading resilience solution providers. • Online knowledge hub of tools and resources

Systemic change making tools support the use of investor influence and platforms to drive shifts in market rules, industry norms, and public policies to create an enabling environment for scaling up investment in climate resilience.

Topic	Tools
Collaborative Investor Action	• Blueprints for establishing leadership initiatives, public calls for mandatory disclosure standards, participating in investor collaborations to set sector-wide resilience expectations, and engaging policymakers to promote incentives and remove barriers • Investor statements and call to action
Policy Advocacy	• Represent/support clients on key investor initiatives and collaborations shaping climate resilience standards. • Engage regulators and policymakers on behalf of investors to strengthen enabling environment. • Climate resilience policy engagement strategy • Elevate client leadership through communications and advocacy • Briefing notes on climate resilience policy and regulation • External communications blueprints

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Monitoring & accountability tools focus on tracking and disclosing performance against climate resilience goals and targets at the asset, portfolio, and system levels. This involves identifying metrics and indicators to assess vulnerability and resilience over time, monitoring investee progress in alignment with climate resilience expectations, and transparently reporting on progress to stakeholders.

Topic	Tools
Use of Metrics	• Guidance on defining relevant metrics, targets, and co-indicators • Blueprints for supporting clients in developing climate resilience metrics and targets. • Resilience metrics and target-setting guide
Disclosures	• Support for broader, flexible disclosure approaches that respect corporate hesitations • Disclosure regulation gap analysis and roadmap • Investee climate resilience performance scorecard • Client reporting templates • Blueprints for monitoring investee performance and aligning with emerging disclosure regulations.

Wider stewardship tools are also provided and will be progressively expanded over time.

Topic	Tools
Proxy voting	• Sample proxy voting guidelines and engagement questions on physical climate risk management

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Looking Ahead

This sourcebook proposes a comprehensive approach for investors to integrate physical climate risk assessment and climate resilience considerations into their strategies and practices. By providing detailed guidance and illustrative case studies tailored to specific investor segments, asset classes, sectors, and geographies, this sourcebook aims to equip asset owners and managers with the practical tools and insights needed to build resilience both within their own portfolios and across the wider economy.

This approach designed to be adaptable and responsive to the unique needs and objectives of different investors. Pension funds, sovereign wealth funds, insurers, commercial banks, and asset managers may find these recommendations helpful for developing customized resilience strategies aligned with their fiduciary duties, risk management approaches, and investment philosophies. The customised profiles demonstrate how the framework can be translated into concrete actions, from conducting granular risk assessments and engaging with portfolio companies to developing new investment products and collaborating with policymakers.

Integrating climate resilience considerations across all dimensions of the investment process is a complex undertaking that will necessitate upskilling staff, enhancing data and analytics capabilities, and forging new partnerships and alliances. This sourcebook outlines a pathway for investors to embark on this journey, with ongoing learning and iteration as best practices evolve, and new challenges emerge. Next steps in this journey may entail:

- *Socialising the approach:* actively engaging with the investor community to raise awareness of the approach, seek feedback on its contents, and identify asset owners and managers interested in piloting its recommendations. This could involve targeted outreach through industry networks, forums, and events.

- *Piloting:* identifying partners interested in testing the approaches set out in this sourcebook within their own organizations. This could provide an opportunity for hands-on learning, knowledge-sharing, and collaborative problem-solving as investors work to integrate resilience strategies across different asset classes, sectors, and geographies.

- *Developing implementation tools:* supporting pilot partners and the broader investor community through developing a suite of practical tools and resources to aid in the implementation of the approaches set out in this sourcebook, as described in the previous section.

- *Refine and scale:* refining the approach and associated tools to enhance their relevance and usability, based on the lessons learned through piloting. This would also explore opportunities to scale up adoption of the

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- approaches set out in this sourcebook among a wider circle of investors, including through partnerships with industry initiatives and collaboration with policymakers and regulators.

This sourcebook aims to support a shift towards more climate-resilient and sustainable investment practices by providing investors with a structured yet flexible approach to stewardship for climate resilience.

As the global community continues to grapple with the challenges posed by emerging and rising physical climate risks, it is crucial for investors to remain proactive and adaptable in their approach to managing physical climate risks and leveraging resilience opportunities. By collaborating with each other, policymakers, and other stakeholders, and by continually refining and updating their strategies based on emerging best practices and lessons learned, investors can play a vital role in driving the transition to a more climate-resilient and sustainable future.

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