Investor Group on Climate Change

Beyond Risk to Building Resilience

Investor Expectations of Companies on Physical Risk Management and Resilience

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About the Investor Group on Climate Change

We are the leading network for Australian and New Zealand investors to understand and respond to the risks and opportunities of climate change.

Our members include our countries' largest superannuation and retail funds, specialist investors and advisory groups. They are custodians of the retirement funds and savings for more than 15.8 million Australians and millions more New Zealanders.

Our members manage almost $5 trillion locally.

About This Guide

This guide helps implement the Investor Group on Climate Change's (IGCC) Road to Resilience Strategy: An Investor Action Plan for an Adaptive and Sustainable Economy.[1] It supersedes IGCC's Investor Expectations of Companies on Physical Risk Management and Resilience (pilot version).[2]

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Individual IGCC members may hold different views and information from what is in this paper. The IGCC takes sole and final responsibility for its content. Please refer to the disclaimer on the final page for important legal information.

1 IGCC. *Road to Resilience an Investor Action Plan for an Adaptive and Sustainable Economy*. 2022.
2 IGCC. *Investor Expectations of Companies' Physical Climate Risk Management and Resilience (pilot version)*. 2024.

Contents

Executive Summary

Why building resilience matters now. Physical climate risks are disrupting the operations and value chains of Australian companies today, including by damaging assets, halting production and raising costs. These impacts threaten companies' capacity to remain profitable and provide essential goods and services to communities.

Why investors care. If not appropriately managed, climate damages and disruption will lower long-term investment returns from the companies and assets that investors own. This impairs the ability of asset owners and their investment managers to protect Australians' retirement capital.

The business case is real. Every $1 invested in climate adaptation can deliver $2–$15 in financial benefits on average[3] (and sometimes much more), through avoided losses, reduced disruption and productivity gains. For many companies, adapting to physical impacts of climate change is simply good risk management.

Disclosures are necessary but not sufficient. Australia's mandatory climate reporting standard is in effect. It requires disclosure of physical and transition risks, governance, strategy, risk management and metrics. However, it does not require action or assess the credibility of these disclosures. Investors are looking for credible plans and adaptation actions that build resilience and protect capital.

Investor expectations: This guide sets out six expectations of companies to support them in effectively managing their material physical climate risks and build resilience.

1. **Climate governance (Board)** on climate risks (including physical)
2. **Executive accountability (management)** for physical risk and resilience
3. **Adaptation and resilience targets and plan** that set out clear actions and their impact towards building resilience
4. **Capital allocation** tied to the plan and tracked over time
5. **Policy engagement and advocacy** to enable resilience and avoid maladaptation
6. **Just adaptation** that considers workers, communities, First Nations peoples, shared infrastructure and nature

The expectations were developed with a working group of IGCC members and piloted with a sample of companies through 2024 and part of 2025.

Meeting expectations will vary in practice. Investors recognise that exposure to physical climate risks varies across companies, sectors and geographies. Therefore, they expect companies to apply a materiality-based approach in their response. In addition, for some expectations, companies will need to develop their approach over time. Therefore, this report includes case studies to demonstrate what "good" could look like.

Working together is essential. Investors and companies share common goals: protecting and building value, productivity and sustained profitability. Collaboration is essential to ensure this is effective and cost-efficient. This includes investors working with companies and supporting resilience-building initiatives, and investors and companies engaging with government on policies and regulations to enable and incentivise investment in adaptation.

3 Global Resilience Partnership. *From Risk to Reward*. December 2023.

Section 1: The Case for Action

1.1 - Climate Damages are Increasing

Climate change is already influencing weather patterns and increasing the frequency and intensity of some extreme events, including heatwaves, bushfires, storms and floods.[4] These changes damage and disrupt the economy, communities and financial systems. As temperatures continue to rise, the impacts of climate change become more severe and costly.

The 2025 Australian National Climate Risk assessment found escalating risk over the next 25 years, including:

- *"Extreme weather events will increase damage to property, facilities, disrupt operations and lead to financial losses.*
- *"Physical risks to infrastructure and critical assets, especially in coastal regions, are expected to increase, with potential cascading impacts on regions and increased costs.*
- *"Property damage, increased insurance costs, loss and damages to homes, disruptions in supply chains, and increased prices for essential goods will contribute to the cost of living, placing further strains on household budgets.*
- *"There is the potential for economic impacts on one sector or region to quickly spread to others through a complex web of interdependencies. This could result in climate-driven financial crises, particularly if severe events are widespread or coincident, reducing the ability of governance at all levels to react quickly.*
- *"The affordability and availability of insurance for at-risk communities are likely to worsen, with flow-on impacts on related sectors."*[5]

By 2050, the total economic loss from climate-related hazards under a moderate emissions scenario is projected at $201 billion annually in Australia,[6] undermining productivity, damaging physical assets and eroding economic growth. This figure excludes the costs from chronic risks.

Investors' holdings outside Australia are also exposed: Similar dynamics exist across regions and markets. Global insured losses from extreme weather were US$140 billion in 2024, with total economic loss significantly higher.[7] This excludes chronic impacts and would be expected to worsen with continuing global warming.

Australian Climate Service. National Climate Risk Assessment:

4 World Weather Attribution. *When Risks Become Reality: Extreme Weather in 2024*. 2024.
5 Australian Climate Service. National Climate Risk Assessment: Economy Trade and Finance Dashboard. 2025.
6 Pg 110 Australian Climate Service. National Climate Risk Assessment. 2025.
7 Insurance Council of Australia/MunichRE. Insurance Catastrophe Resilience Report 2024–25 2025

1.2 - Physical Climate Risks are Material to Company Operations and Assets

Damage and disruption due to climate change are significant threats to companies' ability to provide goods and services and remain profitable.

There are already examples of unprecedented weather events delaying operations and destroying infrastructure.

- Suspended operations: Aurizon, one of Australia's largest freight rail operators, was forced to suspend operations for weeks in 2017 after cyclone damage to key transport corridors. This reduced its earnings by up to $115 million.[8]
- Loss of key infrastructure: 29Metals's Capricorn Copper mine, one of the country's major copper-silver mines, was forced into a 12-month closure in 2023 because key infrastructure was lost during flooding.[9]

Climate damages span value chains and economies alike, creating market-wide impacts such as shared infrastructure failures or the withdrawal of key services. Impacts to one company can indirectly impact others:

- Supply chain disruption: Seven transmission towers managed by Transgrid were brought down by a storm in October 2024. This led to a sudden blackout, and local mines and businesses had to pause operations.[10]
- Broader economic impacts: Tropical Cyclone Alfred caused widespread disruption across South East Queensland and northern New South Wales in March 2025. This resulted in significant property damage, supply chain chaos and prolonged shortages of essential goods due to road closures, port shutdowns and power outages. The economic and business impact included halted operations for exporters and farmers, substantial financial losses and rising fresh produce prices. The lengthy recovery process required government support for affected producers and retailers.[11]

These examples show that extreme weather events can have significant operational and financial impacts on companies. As these events become more frequent and intense due to climate change, adverse impacts will likely increase.

1.3 - Impacts on Companies Affect Communities

In Australia, many goods and services essential to the wellbeing of communities and the economy are provided by or rely on large corporations. These include utilities, groceries, transport, construction and telecommunications. Therefore, climate damages and disruptions that affect companies often significantly impact communities.

In the short term, communities may struggle to access certain goods or experience service delays and disconnections. For example, groceries may become more expensive[12] or unavailable[13] following an extreme weather event. In the long term, the physical impacts of climate change will likely raise the cost and reduce the availability of goods and services. This includes higher insurance costs, lower labour productivity, lower agricultural yields, supply chain disruption, higher infrastructure costs and higher energy costs (e.g. for cooling).[14]

8 Aurizon. *ASX Announcements: Update on Impacts of Cyclone Debbie*. 2017.
9 Australian Broadcasting Commission (ABC). *29 Metals Capricorn Mine Flood Damaged Until 2024*. 2023.
10 Australian Financial Review. *Broken Hill Pushes for Tens of Millions in Compensation*. 2024.
11 Procurement and Supply. *Tropical Cyclone Alfred Causes Supply Chain Disruption*. 2025.
12 News.com.au. *Supermarket Price Hikes on the Way Following Wild Weather*. 2022.
13 ABC. *Cyclone Alfred Supermarket Shelves Empty Far from Impact Zone*. 2025.
14 AdaptNSW. *Impacts of Climate Change*. NSW Government. 2025.

1.4 - Investor Returns and Retirement Outcomes are Exposed

Institutional investors, including Australia's $3.9 billion superannuation industry, invest in companies. Therefore, all large investment portfolios are exposed to physical climate risks that impact companies. Ineffective management of these risks increases the risk of lower long-term returns on investment. It impairs how asset owners and their investment managers can protect the retirement capital of their beneficiaries.

A recent analysis of Australia's 30 largest superannuation funds showed that, without effective management, returns on investment could decrease by up to 46% by 2050 due to climate change–related risks.[15] This would mean less money for Australians to retire with. This has significant implications for both the people affected and governments, who may have to provide additional support for these people.

Investors are already acting on these risks. Analysis suggests that almost two-thirds of Australian institutional investors have assessed the impact of physical risk on their listed company portfolios, and over one-third have implemented a response to this assessment to increase resilience.[16] Investor responses include asset engagement and stewardship, policy advocacy, investment in adaptation solutions and integration of physical risk into investment processes (e.g. portfolio reallocation).

1.5 - The Return on Investing in Resilience

Although upfront adaptation costs can be steep, there is increasing evidence that avoided future costs often outweigh the costs of building resilience. According to the Global Resilience Partnership, "Every dollar a company invests in implementing adaptation and resilience measures can yield $2–15 in financial benefits".[17]

Companies can take many actions to increase their resilience. These may include considering climate impacts when designing and building new infrastructure, retrofitting existing assets, developing new climate-resilient products and materials and operational changes.

- Climate-resilient products and new infrastructure: GrainCorp, an agriculture company, supports developing more climate-resilient crops and investing in rail infrastructure, which is less vulnerable to extreme weather impacts than road infrastructure.[18]
- New infrastructure: In New Zealand, extreme weather events in 2023 incentivised Auckland International Airport to bring forward a program to boost future capacity for stormwater management and increase the airport's resilience to flooding events.[19]

For many companies, adapting to the physical impacts of climate change is good risk management and may already be integrated into decision-making processes. Section 4 details more examples of adaptation actions.

15 Ortec. *Climate Risk Assessment – Top 30 Australian Superannuation Funds*. 2025.
16 IGCC. *State of Net Zero*. 2025.
17 Global Resilience Partnership. *From Risk to Reward Report*. 2023.
18 GrainCorp. *2024 Sustainability Report*. 2025.
19 Auckland Airport. *Results and Reports*. 2025.

1.6 - Insurance Costs and Limitations

Historically, companies have used insurance to recover after extreme weather events. However, as climate-related risks have increased, so too have insurance premiums.[20] Given this upward trend, investing in adaptation could be comparatively cheaper for companies in the long run and reduce increasing insurance premiums.

In addition, insurance only covers some climate-related risks. Chronic climate impacts (e.g. increasing temperatures, changing rainfall patterns) and some acute impacts (e.g. actions of the sea)[21] are not typically covered by insurance. Business disruption may be covered by business interruption insurance. However, the scope is usually limited, and costs are increasing.[22] These restrictions suggest that while insurance plays a role in building resilience for companies, it is an inadequate substitute for adaptation.

1.7 - Effective Adaptation Requires Collaboration

Investors, companies and governments have common interests: protecting and building value, productivity and sustained profitability within a climate-resilient economy. Collaboration will be essential to ensure this is effective and cost-efficient. This includes investors working with companies on adaptation and resilience initiatives, and this guide is intended to focus and facilitate this collaboration.

In addition, governments have an important role to play in facilitating and encouraging investment in adaptation through policy settings. While companies may be able to make their own assets more resilient, they are often also reliant on the government, for example, through publicly owned assets (e.g. roads) or ensuring extreme weather events are considered in land use planning. This highlights the need for whole-of-system resilience, where both private companies and governments will need to collaborate to ensure a resilient Australian economy into the future.

IGCC's recent report, Activating Private Investment in Adaptation,[23] highlights several actions that governments can take to support this. Companies and investors can support governments by engaging with them on policy and regulation changes that improve resilience to climate impacts and stimulate private investment in adaptation.

20 The Australia Institute. *Premium Price: The Impact of Climate Change on Insurance Costs*. 2024.
21 Insurance Council of Australia. *Actions of the Sea*. 2021.
22 Risk&Insurance. *How Climate Change and Supply Chain Chaos Are Driving the Need for Better Business Interruption Coverage*. 2025.
23 IGCC. *Activating Private Investment in Adaptation*. 2024.

Section 2: From Disclosures to Action

2.1 - Companies are Now Required to Disclose on Climate

Parliament legislated Australia's mandatory climate-related financial disclosures in September 2024.[24] The legislation requires large businesses and financial institutions to disclose their climate-related financial risks and opportunities, according to the Australian Sustainable Reporting Standards (specifically, AASB S2)[25]. These standards align with the International Sustainability Standards Board (IFRS S2)[26] and cover both physical and transition climate risks. Key areas for disclosure include governance, strategy, risk management, metrics and targets.

Mandatory reporting will begin in stages depending on business size and revenue; the largest companies will need to report for the financial years starting on or after 1 January 2025. However, as companies are required to disclose their supply chain risks, smaller companies may be required to pass on climate-related information to larger companies in their supply chain.

Disclosures help investors better understand the physical climate risks companies are exposed to, and how companies are managing and mitigating these risks. This enables investors to understand and compare the adaptation and resilience strategies of one company to another, thereby allowing for better investment decision-making. Governments also benefit from disclosures by better understanding how physical climate risks may impact key economic sectors.

The Australian Council of Superannuation Investors (ACSI)'s research found that two-thirds of ASX200 companies had undertaken and disclosed a physical risk assessment. Over half had disclosed some adaptation measures or plans. Although in general, ACSI notes that physical risk is an underreported area of climate disclosures.[27]

2.2 - Ensuring Disclosures Go Beyond Risk to Building Resilience

While Australia's introduction of mandatory climate disclosures will improve companies' and investors' understanding of these risks, information alone is insufficient. Depending on how the requirements are interpreted, companies may meet their formal obligations without meaningfully improving their resilience to climate damages and disruption. For example, a company may disclose a material physical climate risk but state they do not intend to mitigate it or may indicate adoption of a weak risk mitigation strategy.

This guide supports companies to make useful disclosures in line with legislated requirements and help investors assess whether companies have the necessary expertise and a credible plan to manage material physical climate risks. It provides guidance on how companies can go beyond the minimum, recognising the urgent need for action to build resilience.

Appendix 2 maps the expectations to mandatory disclosure requirements and outlines how they differ.

24 Australian Securities & Investments Commission (ASIC). *ASIC Urges Businesses to Prepare for Mandatory Climate Reporting*. 2024.
25 AASB. *AASB S2 Climate-Related Disclosures*. 2024.
26 ISSB. *IFRS S2 Climate-related Disclosures*. 2023.
27 ACSI. *Promises, Pathways & Performance: Climate Change Disclosure in the ASX200*. 2024.

Section 3: The Investor Expectations of Companies

3.1 - The Investor Expectations

Expectation 1 – Climate governance (Board)

The company's Board has the relevant skills to oversee the company's management of climate risks (including physical risks) or can show how it is developing those skills.

Expectation 2 – Executive accountability (management)

A named senior executive has (or is building) relevant skills for physical risk and resilience, with performance incentives aligned to deliver upon adaptation and resilience targets.

Expectation 3 – Adaptation and resilience targets and plan

Publish adaptation and resilience targets, and a plan setting out the key actions the company will take to meet these targets and explain how resilience will improve.

Expectation 4 – Capital allocation

Disclose how capital allocation supports adaptation and resilience targets and plan, including but not limited to anticipated spend and outcomes.

Expectation 5 – Policy engagement and advocacy

Disclose direct and indirect (e.g. industry association) engagement with all levels of government or government agencies to enable adaptation and avoid maladaptation.

Expectation 6 – Just adaptation

Demonstrate how adaptation actions consider workers, communities, First Nations people, shared infrastructure and/or nature and avoid maladaptation.

These expectations were developed in consultation with Australian institutional investors, with input from companies and other stakeholders. Investors recognise that exposure to physical climate risks varies and expect companies to apply a materiality-based approach in their response.

Companies should respond to these expectations using the application guidance on materiality from the Australian Standards Board's Climate-related Disclosures Standards, AASB S2:[28]

> *"An entity shall disclose material information about the climate-related risks and opportunities that could reasonably be expected to affect the entity's prospects.*
>
> *"In the context of climate-related financial disclosures, information is material if omitting, misstating or obscuring that information could reasonably be expected to influence decisions that primary users of general purpose financial reports make on the basis of those reports, which include financial statements and climate-related financial disclosures and which provide information about a specific reporting entity".*

28 AASB S2. Appendix D, paras 17–1.

3.2 - How Should Investors and Companies Use These Expectations?

These expectations are designed to support investor engagement with companies. Investors may share this document with companies directly or use it when reviewing companies' climate disclosures to help prioritise engagement topics.

Companies can also use these expectations to prepare for investor engagement and guide public disclosures. This guide acknowledges the burden of new mandatory reporting and aims to help companies align with investors' core expectations. Addressing these expectations also supports adopting best practices for building resilience.

3.3 - The Consultation and Revision Process

Last October, IGCC released a pilot version of Investor Expectations of Companies on Physical Risk Management and Resilience.[29] A working group of IGCC members developed these expectations to support investors when engaging with companies, with the goal that companies improve their resilience to physical climate risks.

Since then, IGCC and its members have been engaging with companies to gather feedback on the expectations and determine whether they are fit for purpose.

Company feedback was received from individual company engagements and during a roundtable with investors and companies in Q1 2025. Based on feedback from investors, companies and other stakeholders, the expectations have been revised and have also decreased from eight to six expectations.

The decrease in the number of expectations is due to:

- Pilot expectation 1: "The company has a publicly disclosed resilience objective to assess and manage the physical impacts of climate change on its business" and pilot expectation 5: "The company has an adaptation and resilience plan setting out key actions to be taken, by when, who is responsible, and to what extent the actions taken will improve resilience" have merged and now form Expectation 3.
- Pilot expectation 4: "The company includes a warming scenario of either current policies scenario (well above 2˚C) or high warming (3˚C+) scenario as part of its assessment" was removed as it is now included in the mandatory climate disclosures legislation.

29 IGCC. *Investor Expectations of Companies on Physical Risk Management and Resilience*. 2024.

Section 4: Expectations and Supporting Case Studies

When available, one or more case studies have been included for each expectation. The case studies are a guide only and are not exhaustive. How companies meet the expectations will depend on the characteristics of the company, including sector, size and geography.

The case studies are real examples from companies' public disclosures. These companies were selected as they have made some progress on one or more of the expectations. More information on the companies selected is included in Appendix 1. The case studies provided may wholly or partially meet the relevant expectation.

Expectation 1 – Climate Governance (Board)

Ask: The company's Board has the relevant skills to oversee the company's management of climate risks (including physical risks) or can demonstrate how it is developing those skills.

What good looks like:

- One or more directors with expertise in physical risk impacts and recent experience overseeing a resilience plan
- Regular Board education on physical risks, adaptation and resilience
- Disclosure of Board-level physical risk planning activities or actions
- Committee charters and Board skills matrices that explicitly reference physical risks (distinct from transition)

Note: Companies often treat physical climate risk as part of overall climate change, but the skillsets for managing physical and transition risks differ. While one person may oversee both, investors will increasingly expect companies to clearly distinguish these risks and assign Board-level accountability for each in their reporting.

Case Study – Transurban

Transurban's disclosures largely meet this expectation. Transurban includes a Board skills and experience matrix, which includes climate change as a desired skill under the category of "governance, compliance and sustainability". One board director was appointed as a Climate Change Authority director on 1 May 2025 for a five-year term. In addition, the company Board reviewed its approach to climate-related physical risk planning activities in preparation for mandatory climate reporting.

Disclosure could be improved by distinguishing physical risk from climate change as a desired skill and detailing any specific physical risk training the Board may have received over the year, or the actions taken because of any reviews of physical risk planning activities.

Expectation 2 – Executive Accountability (Management)

Ask: A named senior executive has (or is building) relevant skills for physical risk and resilience, with performance incentives aligned to deliver.

What good looks like:

- Clear, single point of accountability (e.g. CEO, COO, Head of Sustainability)
- Remuneration KPIs include credible physical risk, adaptation or resilience milestones (e.g. % of high-risk sites with implemented adaptation actions)
- A suitable independent expert engaged to educate the executive team and disclosed the rationale, training provided and outcomes

Note: Refer to the note in Expectation 1.

Case Study – BHP

BHP's disclosures largely meet this expectation. Its 2024 Climate Transition Action Plan assigns responsibility for driving BHP's climate change strategy, including physical climate-related risk and adaptation, to a member of the senior executive team, the Group Sustainability and Social Value Officer[30]. The executive leadership team also receives progress and performance reports on climate change matters, including adaptation strategy-related activities.

Additionally, executive remuneration is partly tied to climate-related performance measures, including delivering actions in the approved climate adaptation work program.

As the individual has since left BHP, disclosure could be improved by confirming this role will be maintained and that succession planning is in place.

30 BHP Climate Transition Action Plan 2024

Expectation 3 – Adaptation and Resilience Targets and Plan

Ask: Publish adaptation and resilience targets, and a plan setting out the key actions it will take to meet these targets and explain how resilience will improve.

What good looks like:

- Targets are time-bound and may be progress-based (e.g. % of portfolio with site level-resilience plans by year) or outcome-based (e.g. % reduction in weather-related downtime)
- The plan goes beyond risk assessments and outlines actions, showing how resilience is improved.

Note 1: As an interim step, investors may accept descriptive targets (e.g. the company intends to increase the resilience of certain assets to minimise operational disruption). As physical risk and resilience reporting matures, these targets should become time-bound and quantitative.

Note 2: An adaptation and resilience plan in this context may refer to an overarching plan for how the company will manage physical risks and take action to adapt and build resilience, as opposed to expecting the disclosure of asset-level plans. However, developing asset-level plans may be part of the overarching plan. Adaptation plans may also be part of a broader transition plan.[31]

Case Study – Qube

Qube discloses actions taken to build resilience that partially meet this expectation. Qube says it mitigates the risk of disruptions to critical infrastructure by incorporating resilience measures in new builds, direct engagement with infrastructure providers, and a comprehensive insurance program.

Its updated scenario analysis included assessing the impacts of six key climate-related drivers: tropical cyclones, flooding, wildfire, drought, heat stress and sea level rise.

"Each of these risks has the potential to pose financial risk to Qube, primarily through operational disruption under the "failure to decarbonise (greater than 3˚C) scenario," it says.

Qube's 2025 sustainability report[32] includes a table with these six key physical climate risks. For example, it describes wildfires and heat stress as short- to medium-term risks (pre-2030). In response to wildfire risk, Qube indicates its adaptation and resilience actions include developing "alternative supply chain routes and alternative forms of transportation such as road, rail and sea freight for continuity of operations for our customers" and "in forestry, fire resilience measures and waterbombers are used to minimise the risks". Additionally, Qube notes that a key metric for monitoring wildfire risk (that investors can also use to measure progress) is "% change in exposure to wildfires".

Disclosure could be strengthened by setting resilience targets and stating how resilience has improved from existing actions.

31 The Treasury. Climate-related Transition Planning Guidance. Australian Government. 2025.
32 Qube. *ASX Announcement: Sustainability Report*. August 2025.

Case Study – Transurban

Transurban has developed asset-specific Climate Change Adaptation Plans which meet this expectation, as per its 2025 Corporate Report.[33] The 2025 Data Pack[34] lists potential long-term physical climate impacts on various impacts and provides examples of current actions to build resilience, as well as actions for consideration over the short- and medium-term.

For example, in a 4˚C scenario, Transurban discloses there may be an accelerated deterioration and damage of exposed surfaces and structures, soil instability and other impacts. Examples of Transurban's current actions include that the "existing design standards are designed for 1 in 100-year flood events" and there are "plans, procedures and systems in place for structural deterioration, changes or disruption". Examples of Transurban's short-term targets include "progressively implementing CCAPs" and developing a "pavement strategy", while the medium-term target is to "explore opportunities for smart monitoring systems".

Disclosure could be strengthened by setting resilience targets and stating how resilience has improved from existing actions.

Case Study – NAB

NAB has a resilience target that meets this expectation. In June 2024, NAB announced a new target, an "$80 billion environmental finance ambition" for the period from October 2023 to September 2030, "to support customers as they invest in their sustainable future".[35] Over time, this might be developed to help customers adapt and build resilience to the impacts of climate change, according to its 2024 Supplementary Climate Disclosures.

Disclosure could be strengthened by disclosing an overarching adaptation and resilience plan addressing critical physical risks and stating how resilience has improved from existing actions.

Case Study – IAG

IAG has disclosed resilience objectives and an overarching adaptation and resilience plan. Its 2025 Annual Report expresses its ambition as "engaging policymakers and informing communities to drive sustainable insurance markets and build resilient communities".

IAG's 2025 Annual Report[36] describes several risks associated with physical climate risks, including increasing natural perils costs and government intervention in insurance markets. The report outlines the potential effects on its business model and value chain, such as a reduction in the addressable insurance market or an earnings impact from customers' reduced ability to pay full risk prices. IAG details the current mitigation strategies; for example, managing capital through its reinsurance program, which is used to limit exposure to large single claims. The accumulation of some claims to stabilise earnings and protect capital resources has processes to reprice policies in response to changes in risk, and internal guardrails for aggregate underwriting exposure. IAG then touches on how the reinsurance program helps stabilise earnings and improve certainty for the cost of natural perils cover for customers.

A statement on the reinsurance program[37] has information on its resilience action to provide up to $680 million of extra protection annually, and up to $2.8 billion over the entire five-year period.

"This long-term agreement will help to provide greater certainty over natural perils cost as extreme weather events become more frequent and severe," IAG said at the time that the agreement was struck.

In addition, IAG's now-outdated 2021 Climate Disaster and Resilience Action Plan[38] has several adaptation and resilience objectives for IAG's business, customers and supply chain, such as setting a target of "1 million Australians and New Zealanders have taken action to reduce their risk from natural hazards by 2025".

Disclosure could be improved by setting new targets as existing ones are achieved or expire.

33 Transurban. *Reporting Suite*. 2025.
34 See n30.
35 NAB. *ASX Announcement*. June 2024.
36 IAG. *Annual Report 2025*. 2025.
37 IAG. *IAG Reduces Earnings Volatility with Long-Term Reinsurance Agreements*. June 2024.
38 IAG. *Climate & Disaster Resilience: Insuring the Net Zero World*. 2021.

Expectation 4 – Capital Allocation

Ask: Disclose how capital allocation supports adaptation and resilience targets and plan, including but not limited to anticipated spend and outcomes.

What good looks like:

- Multi-year budget linked to adaptation and resilience targets and plan, with outcome KPIs
- Evidence that adaptation and resilience targets are incorporated into capital sourcing, management and deployment approach
- Narrative on expected benefits (e.g. flood risk has been reduced from "High" to "Medium") and cost-benefit for comparable interventions

Note: Public disclosure on adaptation and resilience investments remains limited. While companies may already be investing as part of business-as-usual, investors want clearer insights into how resilience is being built and how investments are being made. Ongoing engagement between investors and companies is key to improving disclosure and shaping its future direction.

Refer also to IGCC's 2025 report *Financing Australia's Corporate Climate Transition* for useful principles on capital allocation[39].

39 IGCC Financing Australia's Corporate Climate Transition 2025

Expectation 5 – Policy Engagement and Advocacy

Ask: Disclose direct and indirect (e.g. industry association) engagement with all levels of government or government agencies to enable adaptation and avoid maladaptation.

What good looks like:

- Alignment between company adaptation and resilience plans, advocacy positions and industry association positions
- Evidence of submissions and engagement with government on adaptation and resilience
- No evidence of advocacy (publicly or privately) that undermines efforts to adapt or build resilience

Case Study – BHP

BHP's 2025 Industry Association Review includes useful disclosure on adaptation advocacy, assessing, for example, the Business Council of Australia (BCA)'s advocacy on "Regional and community adaptation".[40] The review links to the BCA's April 2024 submission to the Department of Climate Change, Energy, the Environment and Water (DCEEW), which welcomed the release of the National Climate Risk Assessment.

Case Study – NAB

NAB's 2024 Climate Report[41] aligns with this expectation by including examples of direct advocacy on adaptation and resilience. In 2024, NAB made a submission[42] in response to DCEEW's National Adaptation Plan Issues Paper, highlighting the critical need for coordinated, effective adaptation strategies and to draw on private capital into adaptation and resilience initiatives.

NAB also participated in APRA's FY22 Climate Vulnerability Assessment (CVA) across 2021–22 to assess the nature and extent of climate risks to financial institutions, along with four other major banks.[43] The CVA examined the resilience of their business models, taking into account physical and transition risks.

40 BHP. *2025 Industry Association Review*. August 2025. (p. 5).
41 NAB. *2024 Climate Report*. 2024.
42 DCEEW. *Climate adaptation in Australia - National Adaptation Plan Issues Paper*. April 2024.
43 APRA. *Information Paper: Climate Vulnerability Assessment Results*. November 2022.

Case Study – IAG

IAG has significant disclosure over how it engages directly and indirectly with government on adaptation and resilience. Along with other insurers, IAG advocates for "practical, long-term solutions", including accelerated investment in flood mitigation, and preventing housing development on flood plains, the report says.

IAG's 2024 Climate Action Plan says IAG engages with government directly, in collaboration with other stakeholders, and through industry groups to address physical risks and opportunities.[44]

The 2025 Annual Report notes that in Australia, the group appeared before the Senate Select Committee on the Impact of Climate Risk on Insurance Premiums and Availability.

The group's submission to that inquiry discusses insurance affordability stress and measures to alleviate it.

The annual report adds that in New Zealand in FY25, IAG "continued advocating for risk reduction, resilience-building and adaptation".[45]

The report also notes that in New Zealand IAG has engaged with the Natural Hazards Commission's review of financial settings, as well as the Ministry of Business, Innovation and Employment on flood infrastructure.

Additional examples of its direct engagement include initiatives such as the Australian Government's Hazards Insurance Partnership (HIP). The HIP is a partnership between the Australian Government, regulators, agencies and the insurance industry, allowing for engagement on issues of disaster risk reduction and hazard insurance.

In 2024, IAG also participated in the codesign of the structure for APRA's Insurance Climate Vulnerability Assessment (ICVA) — an industry-wide climate scenario assessment intended to highlight potential impacts of future climate scenarios on Australian home insurance affordability.[46]

IAG's 2024 Annual Report notes that in New Zealand, IAG participated in the government's Expert Working Group, advising the development of public policy for planned relocation.[47]

In parallel, it continued to work with New Zealand's Environmental Defence Society alongside other businesses and local councils on a series of reports on proposed legislation to support climate adaptation.

44 IAG. *Climate Action Plan: Towards FY30*. August 2024. (p. 9).
45 IAG. *Annual Report 2025*. August 2025
46 APRA. *Insurance Climate Vulnerability Assessment*. December 2024.
47 IAG. *Annual Report 2024*. August 2024. (p. 9).

Expectation 6 – Just Adaptation

Ask: Demonstrate how adaptation actions consider workers, communities, First Nations people, shared infrastructure and/or nature and avoid maladaptation.

What good looks like:

- The company improves the resilience of local infrastructures that additionally benefit the community, First Nations people and/or nature.
- Adverse impacts of adaptation actions have been considered, with steps taken to minimise them.
- Adaptation and resilience plans have been developed in line with just transition principles, e.g. the International Labour Organization (ILO)'s guidelines for a just transition.[48]

Case Study – BHP

BHP largely meets this expectation as it has considered co-benefits to the community and is taking action to build community climate resilience.

"Adaptation measures that we may implement can have broader social value benefits but need to be designed to avoid or minimise maladaptation risks," its 2024 Climate Transition Action Plan says.[49]

"We acknowledge the importance of an inclusive and equitable approach to community adaptation that seeks to incorporate Indigenous and local knowledge," it says.

BHP's 2024 Climate Transition Action Plan includes a detailed case study on how it is fostering community climate resilience in Northern Chile, through initiatives including the installation of a solar microgrid and solar PV system, the development of a water monitoring system, and the piloting of a project producing bio-fertilisers from organic waste.[50]

"The project has been co-developed with local communities, drawing on local knowledge to identify potential innovative technological and infrastructure responses that could support resilience to the impacts of a changing climate through improved water and energy security," it says. BHP says it is aiming to build its capability for future engagement with local communities on the topic of climate resilience.

Disclosure could be further strengthened through commitments to act in line with Just Transition or Just Adaptation principles.

48 ILO. *Guidelines for a Just Transition Towards Environmentally Sustainable Economies and Societies for All*. 2015.
49 BHP. *Climate Transition Action Plan*. August 2024. (p. 44).
50 See n44 (p. 45).

Case Study – NAB

NAB meets this expectation by supporting its customers to improve resilience.

NAB's 2024 reporting[51] states that through its partnership with the Resilient Building Council, NAB has helped customers better protect their homes. NAB customers were encouraged to use the Bushfire Resilience Rating Home Self-assessment app to help identify how they could renovate their home to achieve a five-star Resilience Rating. Participating customers were eligible for mortgage rate and insurance premium discounts from participating insurance companies.

Disclosure could be further strengthened by ensuring adaptation actions have considered maladaptation risks.

51 NAB. *Climate Report 2024*. 2024.

Appendix 1: Description of Case Study Companies

Companies were selected to represent different sectors, with different risks and mitigation strategies. Investors noted their disclosure as making some progress against these expectations.

The following companies were selected as case studies:

BHP	BHP is one of the world's largest diversified mining companies, primarily producing iron ore, copper, coal and other materials such as nickel, uranium and potash. It has a market capitalisation of around $220 billion and a global workforce of more than 90,000 employees and contractors.
Qube	Qube is one of Australia's largest logistics providers, with a market capitalisation of around $8 billion and a workforce of about 10,000 employees. It has operations in Australia, New Zealand and South East Asia.
IAG	IAG is the largest general insurer in Australia and New Zealand. It has a market capitalisation of about $20 billion and a workforce of more than 12,000 employees.
Transurban	Transurban is a leading toll-road developer and operator, operating 22 toll roads in Australia, the US and Canada. It has a market capitalisation of $45 billion and a workforce of more than 10,000 employees and contractors.
NAB	NAB is one of Australia's largest banks, and the Group also owns the Bank of New Zealand. It has a market capitalisation of about $127 billion and a workforce of almost 40,000 employees.

Appendix 2: The Expectations Mapped to Australia's Disclosure Standards (AASB 2)

Australia's mandatory climate-related disclosure standard – Australian Sustainability Reporting Standard, AASB S2 Climate-related Disclosures – is based on the international standards IFRS S1 and S2 released by the ISSB.[52]

The table below maps the investor recommendations to the relevant parts of AASB 2 and provides some explanation for how the recommendation is additive (not duplicative) to the disclosure.

52 AASB S2. Note that AASB S1 *General Requirements for Disclosure of Sustainability-related Financial Information* will be voluntary and apply to "sustainability-related" disclosures, including but not limited to climate.

Climate governance	
Australian Standard Paragraph 6	To achieve this [governance] objective, an entity shall disclose information about: a. the governance body(s) (which can include a board, committee or equivalent body charged with governance) or individual(s) responsible for oversight of climate-related risks and opportunities. Specifically, the entity shall identify that body(s) or individual(s) and disclose information about: i. how responsibilities for climate-related risks and opportunities are reflected in the terms of reference, mandates, role descriptions and other related policies applicable to that body(s) or individual(s); ii. how the body(s) or individual(s) determines whether appropriate skills and competencies are available or will be developed to oversee strategies designed to respond to climate-related risks and opportunities; iii. how and how often the body(s) or individual(s) is informed about climate-related risks and opportunities; iv. how the body(s) or individual(s) takes into account climate-related risks and opportunities when overseeing the entity's strategy, its decisions on major transactions and its risk management processes and related policies, including whether the body(s) or individual(s) has considered trade-offs associated with those risks and opportunities; and v. how the body(s) or individual(s) oversees the setting of targets related to climate-related risks and opportunities, and monitors progress towards those targets (see paragraph 51), including whether and how related performance metrics are included in remuneration policies; and b. management's role in the governance processes, controls and procedures used to monitor, manage and oversee climate-related risks and opportunities, including information about: i. whether the role is delegated to a specific management-level position or management level committee and how oversight is exercised over that position or committee; and ii. whether management uses controls and procedures to support the oversight of climate-related risks and opportunities and, if so, how these controls and procedures are integrated with other internal functions.
Investor Expectation 1	Ask: The company's Board has the relevant skills to oversee the company's management of climate risks (including physical risks) or can show how it is developing those skills. *Under AASB S2, companies must disclose how their Board determines whether the appropriate skills and competencies to oversee strategies to respond to climate-related risks and opportunities are available or will be developed by the Board.* *This expectation goes beyond disclosure of an assessment process and sets an expectation that the Board demonstrates that it either has the appropriate skills and competencies or, if not, how it will develop these.*
Investor Expectation 2	Ask: A named senior executive has (or is building) relevant skills for physical risk and resilience, with performance incentives aligned to deliver. *The AASB Standard does not include the skills and competencies of management.*

Adaptation and resilience targets and plan	
Australian Standard Paragraph 27	The objective of climate-related financial disclosures on metrics and targets is to enable users of general-purpose financial reports to understand an entity's performance in relation to its climate-related risks and opportunities, including progress towards any climate-related targets it has set, and any targets it is required to meet by law or regulation.
Australian Standard Paragraph 33 Paragraph 35	An entity shall disclose the quantitative and qualitative climate-related targets it has set to monitor progress towards achieving its strategic goals, and any targets it is required to meet by law or regulation, including any greenhouse gas emissions targets. An entity shall disclose information about its performance against each climate-related target and an analysis of trends or changes in the entity's performance.
Australian Standard Paragra[h 14	An entity shall disclose information that enables users of general purpose financial reports to understand the effects of climate-related risks and opportunities on its strategy and decision-making. Specifically, the entity shall disclose: a. information about how the entity has responded to, and plans to respond to, climate-related risks and opportunities in its strategy and decision-making, including how the entity plans to achieve any climate-related targets it has set and any targets it is required to meet by law or regulation. Specifically, the entity shall disclose information about: i. current and anticipated changes to the entity's business model, including its resource allocation, to address climate-related risks and opportunities (for example, these changes could include plans to manage or decommission carbon-, energy- or water-intensive operations; resource allocations resulting from demand or supply-chain changes; resource allocations arising from business development through capital expenditure or additional expenditure on research and development; and acquisitions or divestments); ii. current and anticipated direct mitigation and adaptation efforts (for example, through changes in production processes or equipment, relocation of facilities, workforce adjustments, and changes in product specifications); iii. current and anticipated indirect mitigation and adaptation efforts (for example, through working with customers and supply chains); iv. any climate-related transition plan the entity has, including information about key assumptions used in developing its transition plan, and dependencies on which the entity's transition plan relies; and v. how the entity plans to achieve any climate-related targets, including any greenhouse gas emissions targets, described in accordance with paragraphs 33–36; b. information about how the entity is resourcing, and plans to resource, the activities disclosed in accordance with paragraph 14(a). c. quantitative and qualitative information about the progress of plans disclosed in previous reporting periods in accordance with paragraph 14(a).
Investor Expectation 3	Ask: Publish adaptation and resilience targets, and a plan setting out the key actions the company will take to meet these targets and explain how resilience will improve. *Investors expect companies exposed to material physical risks to have adaptation and resilience targets and a plan while mandatory disclosure requirements only confirmation of whether such plans exist.* *This expectation also calls for companies to provide details on how adaptation actions will enhance resilience so investors can assess effectiveness and track progress.*

Capital allocation	
Australian Standard Paragraph 16	Specifically, an entity shall disclose quantitative and qualitative information about: a. how the entity expects its financial position to change over the short, medium and long term, given its strategy to manage climate-related risks and opportunities, taking into consideration: i. its investment and disposal plans (for example, plans for capital expenditure, major acquisitions and divestments, joint ventures, business transformation, innovation, new business areas, and asset retirements), including plans the entity is not contractually committed to; and ii. its planned sources of funding to implement its strategy;
Australian Standard Paragraph 29e	An entity shall disclose information relevant to the cross-industry metric categories of: e) capital deployment — the amount of capital expenditure, financing or investment deployed towards climate-related risks and opportunities;
Investor Expectation 4	Ask: The company discloses how capital allocation supports adaptation and resilience targets and plan, including but not limited to anticipated spend and outcomes. *Investors expect that, where material physical risks exist, capital is allocated to company's adaptation plan. Mandatory disclosure requirements only ask whether capital has been deployed, without addressing adequacy or alignment with an adaptation plan.*
Policy engagement and advocacy	
Investor Expectation 5	Ask: Disclose direct and indirect (e.g. industry association) engagement with all levels of government or government agencies to enable adaptation and avoid maladaptation. Mandatory disclosure requirements do not provide guidance on how companies should engage with government on adaptation.
Just adaptation	
Investor Expectation 6	Ask: Demonstrate how adaptation actions consider workers, communities, First Nations people, shared infrastructure and/or nature and avoids maladaptation. Mandatory disclosure requirements do not provide guidance on just adaptation.

Appendix 3: Industry and Academic Literature Consulted

Title	Year	Author	Publication
Climate Action 100+ Net Zero Company Benchmark 1.0 summary (as a model for equivalent physical risk criteria)	2023	Climate Action 100+	
Climate Adaptation Target Setting	2023	UNEP FI Principles for Responsible Banking	
Investor Expectations of Companies on Physical Risks and Opportunities	2021	Institutional Investors Group on Climate Change	
Adaptation Planning for Businesses: Navigating Uncertainty to Build Long-Term Resilience	2024	World Business Council for Sustainable Development	
From Risk to Reward: The Business Imperative to Finance Climate Adaptation and Resilience	2023	BCG	
Linking Corporate Climate Adaptation Strategies with Resilience Thinking	2011	Marina Beerman	*Journal of Cleaner Production*
The Climate Resilience Cycle: Using Scenario Analysis to Inform Climate-Resilient Business Strategies	2021	Udeke Huiskamp	*Business, Strategy and the Environment*
Beyond Adaptation: Resilience for Business in Light of Climate Change and Extreme Weather Extremes	2010	Martina Linnenleucke	*Business and Society*

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