XRB | Te Kāwai Ārahi Pūrongo Mōwaho
EXTERNAL REPORTING BOARD

Climate-related Disclosures Staff Guidance

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1. Who is this guidance for?

This guidance was developed specifically for managers of registered schemes that meet the definition of a climate reporting entity in Part 7A of the Financial Markets Conduct Act 2013 (FMCA 2013).

This guidance document uses the shortened abbreviation 'MIS Manager' to refer to managers of registered schemes.

The Financial Markets Authority (FMA) has developed a flowchart for MIS Managers to help determine if an MIS Manager is a climate reporting entity (CRE) in respect of a scheme. The flowchart is for guidance only and should not be considered, or relied on, as legal advice. Please ensure you undertake your own due diligence.

See sections 461O 'Meaning of climate reporting entity', and 461S 'Meaning of large manager' of the FMCA 2013.

This document includes all the relevant guidance from the XRB's staff guidance for all sectors, so MIS Managers need only refer to this document.

1.1. Disclosing under NZ CS as an MIS Manager

For an MIS Manager, the process of disclosure will be somewhat different than it is for other CREs. While the FMCA requires other CREs to complete climate statements in relation to the entity, an MIS Manager is instead required to disclose in respect of each fund under their management. For an MIS Manager this means the 'entity' to which the climate statements relate is the relevant scheme or fund (as the case may be), and not the CRE itself.

Section 461ZC(2) of the FMCA requires a manager that is a CRE in respect of the scheme to ensure that climate statements are completed "in relation to each separate fund", and also "if any liabilities of the manager and the scheme are not limited to a separate fund, completed in relation to the scheme". The feedback we received from MIS Managers is that it is common for liabilities to be ringfenced, and therefore in most cases an MIS Manager will be required to complete climate statements in respect of each fund under management. In light of this we have referred to "fund" throughout this guidance document.

Common information may be presented at scheme level (to avoid unnecessary duplication) [NZ CS 3 paragraph 20]. FMCA 2013 s461ZE permits scheme and fund climate statements to be combined in a single document.

See sections 461ZC, 461ZD and 461ZE of the FMCA 2013.

Globally, asset managers have approached disclosure in a holistic manner as part of voluntary **TCFD** disclosures. This has involved referring to entity-level governance, strategies, risk management, and metrics and targets as appropriate, alongside the climate-related risks and opportunities of material importance within their investment portfolios. Sources of guidance available globally have been designed with this model in mind, making them difficult for MIS Managers to readily interpret and apply in a New Zealand context.

2. How to read this guidance

Links within the text of each section are recommended reading, and further guidance and additional resources are highlighted where appropriate.

Section 3: Provides an overview of the climate-related disclosure framework. It also provides information on the primary legislation underlying the climate-related disclosure regime.

Section 4: Discusses each of the three standards that, together, make up Aotearoa New Zealand Climate Standards (NZ CS). It contains critical contextual information about the topics and requirements contained within various parts of NZ CS.

Sections 5 and 6: Provide guidance on the key concepts and principles, and the general requirements in NZ CS 3 General Requirements for Climate-related Disclosures.

Sections 7 to 10: Provide disclosure-by-disclosure guidance relating to the four main thematic areas of NZ CS 1 Climate-related Disclosures.

Section 11: Discusses coherence with financial statements.

Section 12: Provides questions that an MIS Manager may wish to answer when conducting a holistic review of its climate-related disclosures.

While much of this guidance provides useful information covering all of NZ CS, this document is also intended to be a reference document, which preparers can refer to as they get to grips with individual disclosure requirements.

2.1. Approach to this guidance – important note

This guidance aims to support MIS Managers required to prepare climate-related disclosures in accordance with NZ CS. It has been prepared to set out the XRB's views as to the broader 'why and how' of climate-related risk and opportunity management in the context of NZ CS.

While this guidance seeks to illustrate the XRB's views as to how an MIS Manager might approach the required disclosures, an MIS Manager must exercise its own judgement so its climate-related disclosures comply with NZ CS and reflect its business model.

In the New Zealand context, MIS Managers operate along the spectrum of index-based to active management models. At one end of the spectrum, index-based managers act as a conduit for customers to access highly diversified portfolios with little active direction from the manager. At the other end of the spectrum, MIS Managers may actively manage each investment, requiring in-house capability to analyse individual investments. Many MIS Managers will be positioned between these two extremes. Part of this guidance may not represent the business model and investment approach taken by individual MIS Manager.

This guidance also aims to foster consistency through clarity of understanding. Climate-related disclosure is an evolving field, and the greater the freedom an MIS Manager has to innovate and improve its analysis – while maintaining comparability and coherence, and complying with NZ CS – the better.

Examples featured throughout this guidance are not endorsements nor necessarily 'good' or 'best' practice.

The XRB may revise this guidance as experience with NZ CS builds and as circumstances change, but MIS Managers should keep themselves up to date.

2.2. Status and disclaimer

This guidance is neither mandatory nor binding on MIS Managers. It does not have the force of law, nor does it amend, or provide any binding interpretation of NZ CS. Only the courts can make binding interpretations of climate standards.

MIS Managers subject to NZ CS are not required to follow this guidance to comply with NZ CS. Nor does observance of this guidance necessarily mean compliance with NZ CS.

As stated above, this guidance does not constitute advice. An MIS Manager subject to NZ CS must apply their own mind to the standards, and take their own advice in considering and applying them to their specific circumstances.

To the fullest extent permitted by law, the XRB disclaims and shall not be liable for any mistake or omission in this guidance, nor does the XRB accept any liability to any reader or user in relation to this guidance.

NZ CS is the definitive statement of requirements.

3. Climate-related disclosure framework

3.1. Transition to a low-emissions, climate-resilient future

The climate-related disclosure framework is made up of three climate standards, collectively referred to as Aotearoa New Zealand Climate Standards (NZ CS).

NZ CS 1 *Climate-related Disclosures*

NZ CS 2 *Adoption of Aotearoa New Zealand Climate Standards*

NZ CS 3 *General Requirements for Climate-related Disclosures*

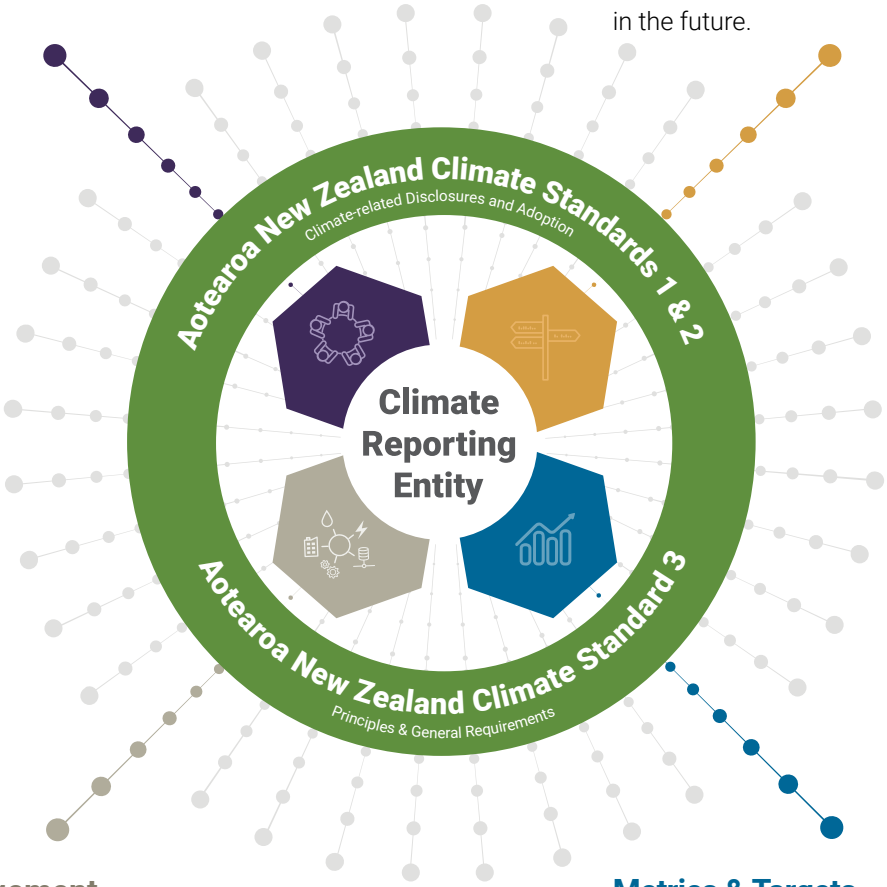
The ultimate aim of Aotearoa New Zealand Climate Standards is to support the allocation of capital towards activities that are consistent with a transition to a low-emissions, climate-resilient future.

Governance

Disclose the oversight of an entitity's governance body, and the role management plays.

Strategy

Disclose how climate change is currently impacting an entity and how it may do so in the future.



Risk Management

Disclose how an entity identifies, assesses and manages climate-related risks.

Metrics & Targets

Disclose the metrics and targets an entity uses to measure and manage climate-related risks and opportunities.

The three standards are designed as a package, so it is important they are read together. NZ CS 1 describes the climate-related disclosures. NZ CS 3 contains the principles that an MIS Manager must apply when applying NZ CS 1. NZ CS 2 provides a limited number of voluntary exemptions from disclosure requirements in NZ CS 1 and NZ CS 3 in Years 1-3.

In each of the three standards, both the defined terms and application dates are included in appendices. Each appendix is integral to its standard. It is important to read and understand the defined terms. For all three standards there is a **Basis for Conclusions** that accompanies the requirements but is not part of them. They explain the XRB Board's decision-making processes.

3.2. Read Part 7A of the Act

NZ CS set out 'what' MIS Managers must disclose, however, they do not determine 'who' is required to make climate-related disclosures. This is contained in Part 7A of the FMCA 2013. As discussed in section 1.1, the FMCA 2013 also contains specific requirements for climate statements relating to registered schemes.

If an MIS Manager is unsure whether it is required to make climate-related disclosures, we advise seeking independent legal advice. If it is still uncertain, an entity may contact the Climate-Related Disclosures team at the FMA.

Part 7A of the FMCA 2013 includes requirements for keeping proper CRD records, lodgement of climate statements, and approval by directors.

Further guidance

Financial Markets Conduct Act 2013 – Part 7A.

The FMA website contains the latest information from the FMA about regulatory matters relating to climate-related disclosures, such as record-keeping.

FMA Flow chart for Managers of Registered Investment Schemes.

FMA, June 2023. Proposed guidance and expectations for keeping proper climate-related disclosure records.

4. Overview of each standard

4.1. NZ CS 1 Climate-related Disclosures

NZ CS 1 | NZ CS 2 | NZ CS 3

NZ CS 1 contains the climate-related disclosure requirements for each of the four thematic areas. These thematic areas are the same as those used by the **TCFD**: Governance, Strategy, Risk Management, and Metrics and Targets. NZ CS 1 also specifies the scope of the mandatory assurance that is required over the greenhouse gas (GHG) emissions disclosures.

Each thematic area has a separate section in NZ CS 1, and each section has been structured in the manner set out below.

Heading	Content
Disclosure objective	The purpose of the disclosure objective is to describe why the information is useful to primary users. The disclosure objective assists entities when making materiality judgements, so that material information is provided to primary users.
Disclosures	To meet the disclosure objective, these are the items of information that an entity must disclose.
Sub-disclosures	In most cases the disclosures have sub-disclosures, which further specify items of information that must be disclosed.

The disclosures should not be used as a checklist. Rather, MIS Managers will need to apply judgement to determine what disclosures and information are material, and whether the information provided satisfies the disclosure objective. The discussion of materiality appears in paragraphs 27-39 of NZ CS 3. Section 5.2 of this Staff Guidance document provides guidance on materiality.

It is important that an MIS Manager applies the requirements to its own specific facts and circumstances. There may be cases where an MIS Manager may need to provide additional information to show a fair presentation [NZ CS 3 paragraphs 6-9].

4.2. NZ CS 2 Adoption of Aotearoa New Zealand Climate Standards

NZ CS 2 relates to the adoption of climate standards in Years 1-3. It provides a limited number of disclosure concessions from NZ CS 1 and NZ CS 3. This recognises the fact that it may take time for CREs to develop the capability to produce high-quality climate-related disclosures, and that some disclosure requirements, by their nature, may require an exemption.

An MIS Manager can choose which, if any, adoption provisions it wishes to use. If an MIS Manager does elect to apply an adoption provision, the MIS Manager is required to disclose its use [NZ CS 2 paragraph 23].

The table below summarises the adoption provisions in NZ CS 2.

Name	Standard, section, and paragraph	Adoption provision		
		First reporting period	Second reporting period	Third reporting period
Adoption provision 1: Current financial Impacts	NZ CS 1 Strategy [Paragraph 12(b)] [Paragraph 12(c)]	Exemption provided	–	–
Adoption provision 2: Anticipated financial impacts	NZ CS 1 Strategy [Paragraph 15(b)] [Paragraph 15(c)] [Paragraph 15(d)]	Exemption provided	–	–
Adoption provision 3:# Transition planning#	NZ CS 1 Strategy [Paragraph 16(b)] [Paragraph 16(c)]	Exemption provided Alternative disclosure required: describe its progress towards developing the transition plan aspects of its strategy	–	–
Adoption provision 4: Scope 3 GHG emissions	NZ CS 1 Metrics and Targets [Paragraph 22(a)(iii)]	Exemption provided Choose to apply to all or selected subset	–	–
Adoption provision 5: Comparatives for Scope 3 GHG emissions. Can only be used if an entity uses Adoption provision 4 in its first reporting period	NZ CS 3 Comparatives for metrics [Paragraph 40]		No scope 3 comparatives required	One year of scope 3 comparative information required
Adoption provision 6:* Comparatives for metrics	NZ CS 3 Comparatives for metrics [Paragraph 40]	Exemption provided	One year of comparative information required	–
Adoption provision 7:* Analysis of trends	NZ CS 3 Comparatives for metrics Paragraph 42	Exemption provided	Exemption provided	–

4.3. NZ CS 3 General Requirements for Climate-related Disclosures

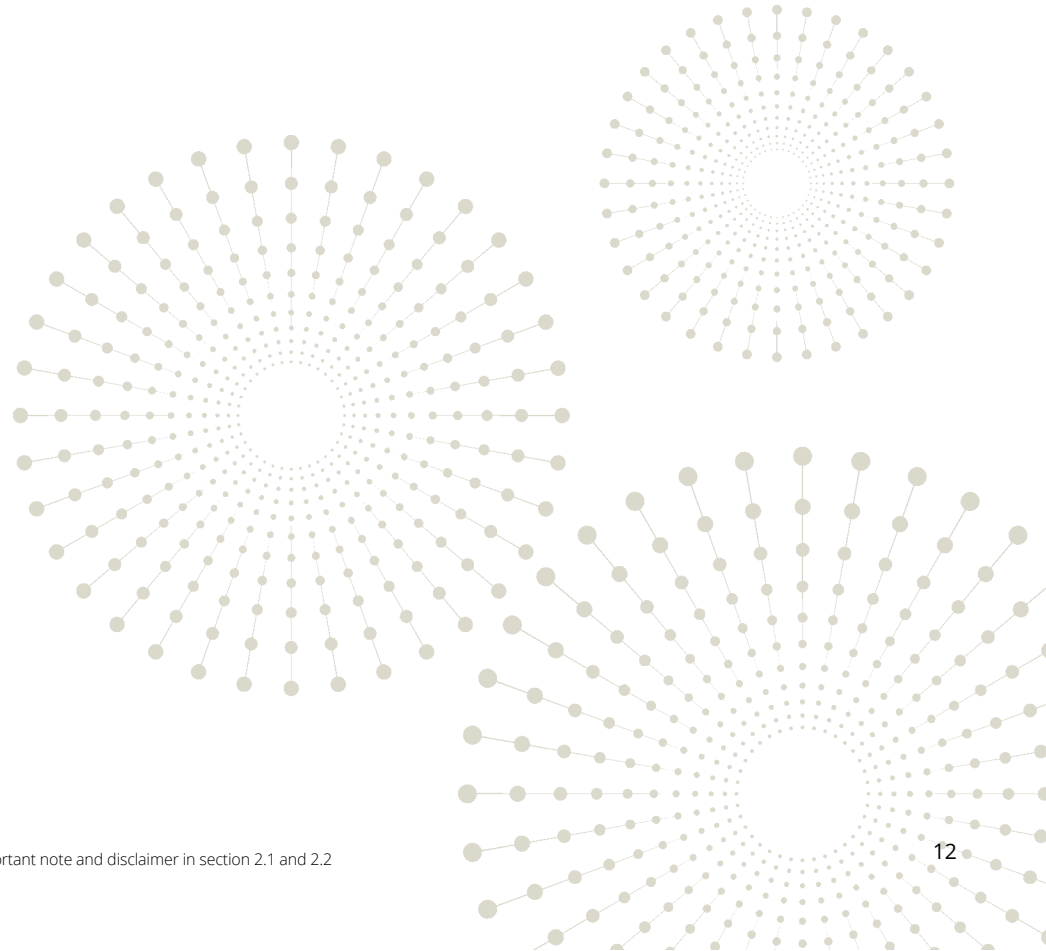
NZ CS 3 contains principles, underlying concepts, and general requirements. NZ CS 3 should be read first and referred to when applying the disclosure requirements in NZ CS 1.

We have included guidance on the application of the principles, and the general requirements in Section 5.

4.4. Application date

MIS Managers must apply the three standards for annual reporting periods beginning on or after 1 January 2023. Assurance of GHG emissions applies to annual reporting periods that end on or after 27 October 2024.

NZ CS 1 includes two application dates because the application date for assurance of GHG emissions was set in primary legislation [NZ CS 1 Appendix B, paragraph B2]. Note that the date refers to periods that **end on or after** that date.



5. Principles in NZ CS 3

5.1. Fair presentation and principles [NZ CS 3 paragraphs 6-13]

NZ CS 1 | NZ CS 2 | **NZ CS 3**

Fair presentation is the overarching principle in NZ CS.

Underpinning fair presentation is the set of principles contained in Tables 1 and 2 in NZ CS 3. Table 1 in the standard includes principles useful to primary users (relevance, accuracy, verifiability, comparability, consistency and timeliness). Table 2 includes principles on the presentation of information (balance, understandability, completeness and coherence).

An MIS Manager must apply these principles when preparing and presenting climate-related disclosures for each of its funds.

Primary users are defined in NZ CS as existing and potential investors, lenders, and other creditors. For an individual fund, primary users are existing and potential investors into that fund. An MIS Manager may have primary users of its funds with different levels of sophistication. Applying the understandability principle means that the MIS Manager may need to provide additional explanations to assist less sophisticated primary users.

The principle of timeliness is included for MIS Managers that voluntarily apply NZ CS. For MIS Managers that are CREs, the Financial Markets Conduct Act 2013 (FMCA 2013) includes requirements on when climate-related disclosures must be made available.

Section 461ZI of the FMCA 2013 states that within four months after the balance date, climate statements are to be delivered to the registrar for lodgement.

5.2. Materiality [NZ CS 3 paragraphs 27-39]

NZ CS 1 | NZ CS 2 | **NZ CS 3**

The need for materiality judgements is pervasive in the preparation and presentation of all disclosure requirements in NZ CS. Paragraph 28 of NZ CS 3 defines 'material' as follows: "Information is material if omitting, misstating or obscuring it could reasonably be expected to influence decisions primary users make on the basis of an entity's climate-related disclosures".

NZ CS 3 also states that if, when applying the disclosure requirements to its own specific facts and circumstances, an entity determines the resulting information is not material, it need not disclose it. In those cases, an entity should document this decision (including the rationale) for internal record-keeping and regulatory purposes.

The responsibility for making materiality judgements and determinations rests with the MIS Manager. An MIS Manager must report climate-related disclosures in respect of each separate fund in its scheme. An MIS Manager is permitted to report common information at a scheme level, however, in doing so an MIS Manager must ensure it does not omit, misstate or obscure

information that could reasonably be expected to influence the decisions primary users make on the basis of disclosures at a fund level. This is particularly important when a scheme may have funds with very different investments, and therefore very different materiality assessments and reporting outcomes.

In making materiality judgments, an MIS Manager needs to consider whether information will be useful to some or all primary users. The guidance below describes what we think primary users are likely to want from each disclosure. Nevertheless, as is required under NZ CS 3, an MIS Manager will need to consider the specific circumstances of the fund, including the characteristics of the fund's investors and potential investors.

An MIS Manager is encouraged to consider the following questions when determining whether an item of information is material:

- Could this item of information, if omitted, reasonably be expected to influence your primary users' investment decisions?
- Is the item of information of high interest to your primary users (even if the value is small)?
- Is the item of information necessary to put a disclosure in context?
- Is the item of information of relevance to the context that you operate in?
- Would your primary users expect this item of information to be included?

Further guidance on materiality

Chartered Professional Accountants of Canada, 2019. Disclosing the impacts of climate change: a process for assessing materiality.

6. General requirements in NZ CS 3

NZ CS 3 includes several general requirements. Some of these enable coherence with an entity's financial reporting, such as requirements in relation to the reporting entity, reporting period and reporting currency

6.1. Location of disclosures [NZ CS 3 paragraphs 14-20]

NZ CS 1 | NZ CS 2 | **NZ CS 3**

NZ CS 3 does not prescribe a specific location for an entity's climate-related disclosures.

In recognition that the disclosure of information about funds within a scheme may contain common information, paragraph 20 of NZ CS 3 allows an MIS Manager to present this information at a scheme level. For example, the Governance or Risk Management processes may be the same for each fund in the scheme. If an MIS Manager decides to present its disclosures in this way, the disclosures should reference the separate funds (for example, by listing the funds) to which the disclosure applies, and ensure any differences for particular funds are clearly identified.

Cross-referencing is permitted under NZ CS 3, however, paragraphs 17-19 of NZ CS 3 outline the requirements for using cross-referencing.

See also section 461ZE of the FMCA 2013, which allows for climate statements to be combined in a single document.

6.2. Value chain [NZ CS 3 paragraph 22]

NZ CS 1 | NZ CS 2 | **NZ CS 3**

When considering a fund's **exposure** to climate-related risks and opportunities, an MIS Manager must consider the exposure of the fund's value chain [NZ CS 3 paragraph 22]. Value chain is a defined term in NZ CS [NZ CS 1 Appendix A]: "A value chain encompasses the activities, resources and relationships an entity [or fund] uses and relies on to create its products or services…".

For a fund, the underlying securities or investee companies are part of its value chain. Scope 3 category 15 emissions – i.e. financed emissions in **PCAF** terminology – are often the most significant part of a fund's GHG emissions inventory. However, the investment management, fund administration and other services that are relied on to deliver the fund might be considered part of a fund's value chain. Figure 1 illustrates a possible value chain for a fund.

After considering the exposure of the fund's value chain to climate-related risks and opportunities, an MIS Manager makes a judgement as to what part or parts of the fund's value chain contain material climate-related risks and opportunities. An MIS Manager should document the process used to define both their value chain and materiality decisions.

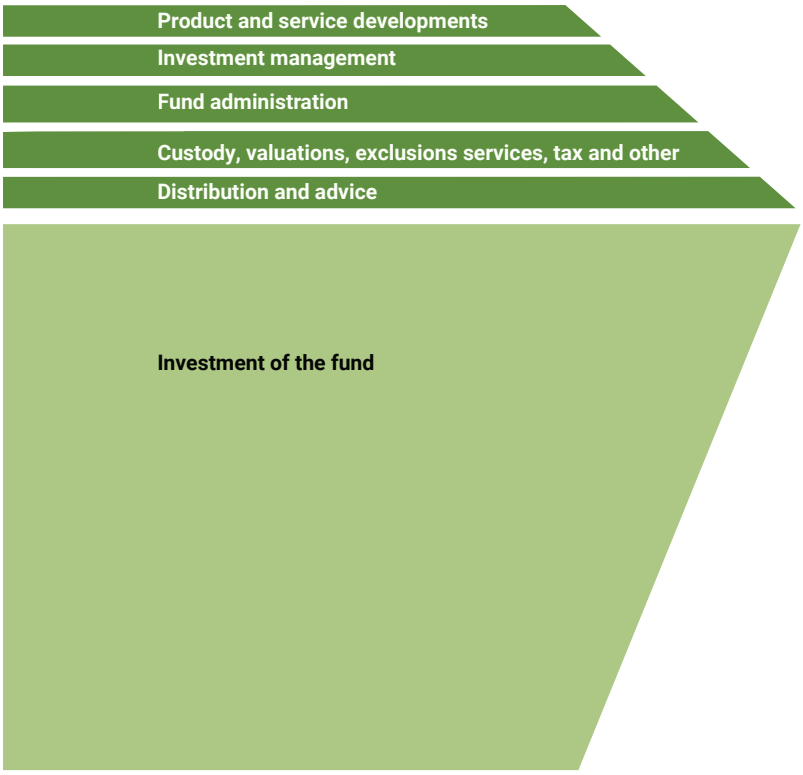


Figure 1: An illustration of a possible value chain for a fund. Adapted from EFAMA.

Further guidance

The European Fund and Asset Management Association (EFAMA) provides an investment fund value chain graphic, which may help MIS Managers think about the value chain of the funds they manage.

PCAF, 2022. The Global GHG Accounting and Reporting Standard for the Financial Industry.

6.3. Comparatives [NZ CS 3 paragraphs 40-46]

NZ CS 1 | NZ CS 2 | NZ CS 3

An MIS Manager must disclose two years of comparative data from the immediately preceding reporting periods, and an analysis of the main trends for each metric disclosed for each fund. Ideally, these metrics would be consistent from one reporting period to the next [NZ CS 3 paragraphs 40 and 42]. If a new metric is disclosed in the current reporting period, comparative information is not required to be disclosed [NZ CS 3 paragraph 41].

Illustrative example for reporting in FY26

Table 1: In FY26 the MIS Manager has reported in respect of the fund for two prior reporting periods

	FY26	FY25	FY24
	Current reporting period	Comparative information	
Metric A	XX	XX	XX

Adoption provisions 6 and 7

NZ CS 1 | NZ CS 2 | NZ CS 3

[NZ CS 2]

Adoption provisions in NZ CS 2 provide some relief from these requirements [NZ CS 2 Adoption provisions 6 and 7].

If an MIS Manager changes what it discloses, or the methods used, it must explain the changes and the effect on the current reporting period's climate-related disclosures. For instance, if an MIS Manager changes the data provider for its GHG figures, it should disclose that fact if it believes it would be material for its primary user. It should also disclose that emissions from the fund have reduced by applying this new data set, and this is due to a change in ***method*** rather than a reduction in underlying emissions [NZ CS 3 paragraph 43].

NZ CS 3 requires the restatement of comparative information to correct a material error [NZ CS 3 paragraph 45].

It does not require the restatement of comparative information for a change in method used [NZ CS 3 paragraphs 44 and 46]. However, it does permit such restatements because the information can assist primary users to assess trends and make comparisons with information provided in previous reporting periods. For instance, if an MIS Manager has changed the method it uses to estimate emissions for its fund, and it had the data available to be able to apply the method to previous reporting periods, then the MIS Manager may choose to restate data for the previous reporting periods. In these circumstances it should disclose the reasons for the restatement and the effect of the restatement.

An MIS Manager may wish to consider documenting when it would consider restatements for internal record keeping purposes.

When considering the main trends for each metric disclosed, it might be useful to indicate the cause of year-to-year movements. For example, a change in a metric could be due to:

- a change in the specification of the metric, measurement method or source data
- a change in the investees, or the relative weight of investees, within the portfolio due to an active decision by the manager (e.g. change in investment screening, approach to risk, investment objectives)
- passive portfolio rebalancing (e.g. driven by changes in the relative market cap of investees, the size of the fund, a short-term increase in cash/liquids as a result of an investee being taken private, possibly due to unrelated factors such as interest rate movements in one country)
- underlying changes in the performance of the investees themselves
- revenue-related metrics, which can be affected by inflation or price movements unrelated to emissions.

Splitting these impacts, especially the degree to which changes in metrics are due to portfolio rebalancing versus improvements in underlying performance, may, in the MIS Manager's view add value for primary users. In all cases, a materiality lens would apply.

Fundamentally, an MIS Manager will need to understand the performance of their portfolio entities for GHG and other metrics and compare them against targets.

6.4. Methods and uncertainty [NZ CS 3 paragraphs 47-54]

NZ CS 1 | NZ CS 2 | **NZ CS 3**

The use of uncertain data, and reasonable estimates based upon them, is an inevitable part of preparing climate-related disclosures. There may also be disclosures for which the methods available are novel or uncertain. Novel or uncertain methods or assumptions, or uncertain data and estimation, should be accurately and transparently described and explained [NZ CS 3 paragraph 48].

There are challenges associated with obtaining accurate, consistent and complete data from all the underlying investments. An MIS Manager should focus disclosures on those assumptions, and other sources of estimation and data uncertainty, that have the most influence on the climate-related disclosures, or that require the MIS Manager's most difficult or complex judgements.

An MIS Manager should be transparent about whether a metric is a snapshot (for example, as at 30 June), based on average weightings, or is calculated via some other method. NZ CS does not prescribe how to calculate metrics. Keeping in mind the principle of fair presentation, the MIS Manager can choose the most appropriate method for each metric disclosed. It is recommended that the MIS Manager maintain internal records of the calculation methods, and discloses material information for its primary user in relation to these methods.

For example, the MIS Manager may need to consider:

- the use of different measurement/estimation techniques across diversified portfolios
- data gaps when information is required at a portfolio level
- averaging across sectors or international markets
- a greater reliance on external data providers and portfolio entities, with consequent challenges for completeness and consistency.

If an MIS Manager is using a third-party provider to assist with disclosures, it is still required to disclose methods and uncertainties. The FMA has guidance on using third-party providers.

Guidance on methods and uncertainty that is unique to specific disclosures is covered in that section.

6.5. Statement of compliance
[NZ CS 3 paragraphs 55-56]

NZ CS 1 | NZ CS 2 | NZ CS 3

As part of its climate-related disclosures, an MIS Manager must make an explicit and unreserved statement of compliance. This statement must be presented prominently within the climate statement related to a scheme and funds within a scheme.

Example illustrative disclosure

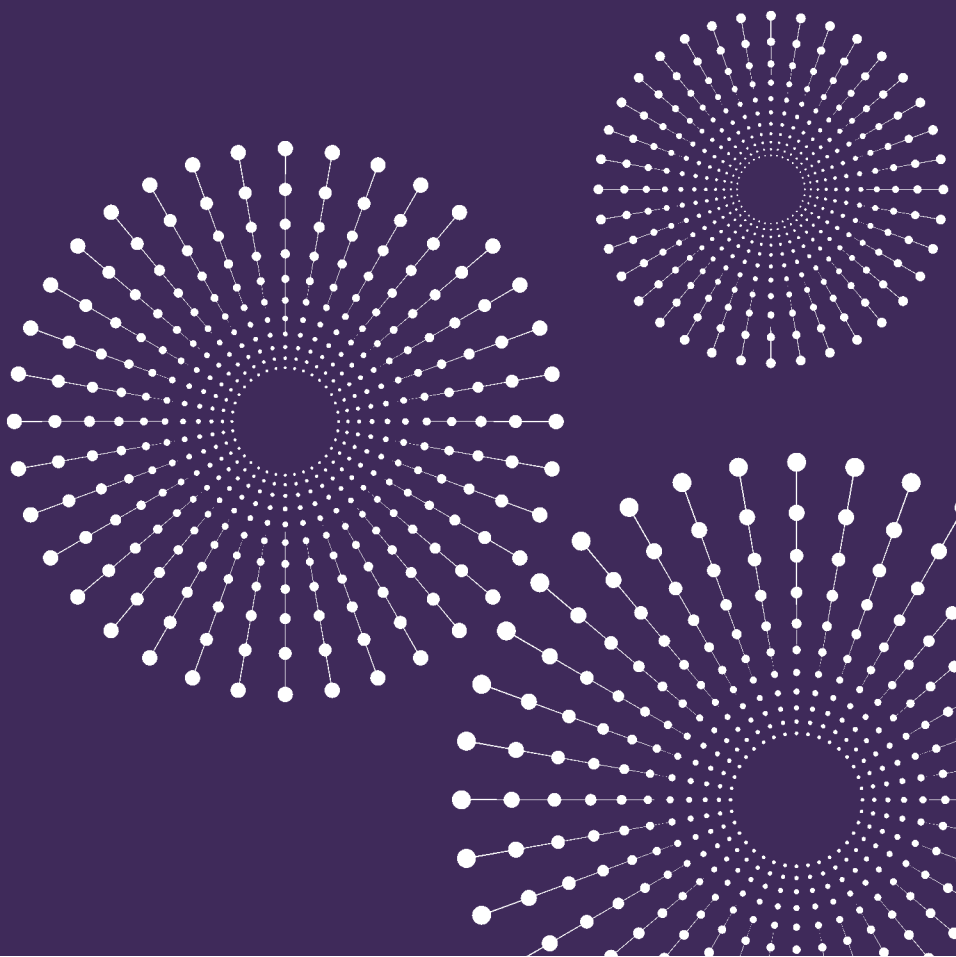
Scheme A's climate-related disclosures on pages xx to xx comply with Aotearoa New Zealand Climate Standards issued by the External Reporting Board. It includes all material disclosures in relation to fund X, Y and Z of Scheme A.

If an MIS Manager has taken advantage of one or more adoption provisions in NZ CS 2, then its climate-related disclosures must include a description of the adoption provisions used in conjunction with the statement of compliance [NZ CS 2 paragraph 23].

Example illustrative disclosure including adoption provision

These climate-related disclosures comply with Aotearoa New Zealand Climate Standards issued by the External Reporting Board. In preparing its climate-related disclosures for Scheme A, Fund X, we have elected to use Adoption provision 6: Comparatives for metrics in NZ CS 2. This adoption provision exempts the disclosure of comparative information for each metric disclosed for the immediately preceding two reporting periods.

Governance



7. Governance

This section has been drafted to assist in making disclosures in relation to Governance. NZ CS 1 requires disclosure of governance arrangements in respect of the fund. This guidance does not recommend what those governance arrangements should be. Examples used are for illustration only.

7.1. Governance disclosure objective [NZ CS 1 paragraph 6]

NZ CS 1 | NZ CS 2 | NZ CS 3

The objective of the Governance disclosures in NZ CS is "to enable primary users to understand both the role an entity's governance body plays in overseeing climate-related risks and opportunities, and the role management plays in assessing and managing those climate-related risks and opportunities".

In the case of MIS managers, this objective includes enabling primary users to form a view on how, in relation to climate-related risks and opportunities, the governance body promotes transparency, encourages more efficient capital allocation (i.e. in funds), and oversees responsible investment decisions.

7.2. Governance body identity [NZ CS 1 paragraph 7(a)]

NZ CS 1 | NZ CS 2 | NZ CS 3

Which body has the ultimate responsibility for oversight of the climate-related risks and opportunities of the funds?

Which body determines the investment strategies, policies and objectives of the funds?

Answering the above questions should enable each MIS Manager to identify and disclose the identity of the governance body of its funds. Depending on the individual facts and circumstances of the MIS Manager, it may be the Board, an Investment Committee, or another committee or body.

7.3. Governance body oversight [NZ CS 1 paragraph 7(b)]

NZ CS 1 | NZ CS 2 | NZ CS 3

This disclosure requires an entity to describe the governance body's oversight of climate-related risks and opportunities. Sub-disclosures in paragraphs 8(a) to 8(d) form the basis of disclosure 7(b).

Many of these disclosures may work well as figures or tables. For instance, an organisation chart may be provided to clearly communicate the governance structure and the processes involved in oversight of climate-related risk and opportunity.

Example voluntary disclosure

The Board of Directors has ultimate responsibility for the group's [responsible investment] policy and all underlying views, as well as for the position on climate change. The Board sees improving the understanding of, and further integrating climate change risks into, the investment processes as part of our fiduciary duty and as benefitting our clients, undergoes annual training on the topic. The Board is responsible for defining goals and setting specific organisational targets, both for the operations and for the investments, and will measure progress and report to the various stakeholders once a year through the annual [responsible investment] Report and other existing reporting channels.

Anthos Fund & Asset Management's climate-related disclosures. 2021 TCFD report, p.7.

Governance body oversight > processes and frequency [NZ CS 1 paragraph 8(a)]

NZ CS 1 | NZ CS 2 | NZ CS 3

This disclosure requires an MIS Manager to describe the processes and frequency by which the governance body is informed about climate-related risks and opportunities.

This disclosure gives primary users an insight into the extent to which the MIS Manager's highest-level governance body prioritises climate-related risks and opportunities in its core oversight duties.

Governance body oversight > skills and competencies [NZ CS 1 paragraph 8(b)]

NZ CS 1 | NZ CS 2 | NZ CS 3

Climate change is a disruptor to business as usual. As with any form of disruption, governance bodies should be composed of individuals who collectively have sufficient awareness and understanding of the ways in which climate change may affect the funds they manage.

This disclosure informs primary users about the subject-specific capability the governance body has to provide appropriate oversight of climate-related risks and opportunities. Primary users want to know that an MIS Manager has appropriate skills, knowledge and experience on its governance body, and access to expertise. Primary users also want to know that an MIS Manager has systems in place to ensure the retention of such competence – for example, ensuring that skills, knowledge and experience do not reside in one individual.

If an MIS Manager is in the process of building and developing skills, knowledge and experience at the governance level, it should include a description of its progress to date and its plans to further develop skills and competencies.

Governance body oversight > integration [NZ CS 1 paragraph 8(c)]

NZ CS 1 | NZ CS 2 | NZ CS 3

Primary users seek clarity on the governance body's oversight of the integration of climate-related risks and opportunities into strategy development and implementation. This information helps to illustrate the merits of an MIS Manager's claims of the weight it attaches to climate-related risks and opportunities in its core strategic processes, and helps to contextualise subsequent strategy disclosures in relation to the fund.

This disclosure provides an MIS Manager with an opportunity to demonstrate the coherence of its efforts to integrate climate-related risk and opportunity in the development and execution of its strategy for the fund.

Governance body oversight > monitor progress
[NZ CS 1 paragraph 8(d)]

NZ CS 1 | NZ CS 2 | NZ CS 3

Disclosure 8(d) offers primary users a view of how the governance body makes climate-related risk and opportunity metrics and targets a tangible and meaningful component of management's core responsibilities, linked to management performance evaluation criteria.

Incentivising appropriate members of management for meeting and fulfilling climate-related targets and policies is a means of ensuring ownership of performance, and disclosing such arrangements is a means of communicating that commitment.

An MIS Manager should set out how its highest-level governance body selects climate-related metrics and targets as disclosed in NZ CS 1 paragraphs 21(a) to 21(d), monitors progress toward them, and oversees their achievement. The entity should make specific reference to remuneration policy, if any, linked to the achievement of metrics and targets [NZ CS 1 paragraph 22(h)].

7.4. Management's role
[NZ CS 1 paragraph 7(c)]

NZ CS 1 | NZ CS 2 | NZ CS 3

Management is defined in NZ CS as "executive or senior management positions that are generally separate from the governance body".

This disclosure requires an MIS Manager to describe management's role in assessing and managing climate-related risks and opportunities for its fund. Sub-disclosures in paragraphs 9(a) to 9(d) form the basis of disclosure 7(b).

This information adds depth to a primary user's understanding of how the governance body's strategic direction on climate-related risk and opportunities is implemented by management.

An MIS Manager should describe its organisational structure(s), using figures or diagrams where appropriate. How other risks are managed within the fund (and by whom) may serve as an indicator of where climate-related risk management responsibilities might be assigned.

Management's role > responsibilities assigned
[NZ CS 1 paragraphs 9(a)]

NZ CS 1 | NZ CS 2 | NZ CS 3

Primary users may want information on how climate-related responsibilities are assigned to management-level positions, or committees at fund level, and subsequently implement any investment strategy initiatives which aim to enhance the fund's climate **resilience**.

An MIS Manager should focus on the 'who' and 'how' of climate-related risk and opportunity management in completing disclosure 9(a), documenting the assignment of responsibilities with respect to climate-related risks and opportunities.

Some of this information may already be set out at a high level in the Statement of Investment Policy and Objectives (SIPO), or in the Other Material Information (OMI). An MIS Manager should build on these descriptions as necessary, to provide primary users with a clear picture of how climate-related roles are delegated in relation to its funds, and the processes by which the appropriate governance body (or bodies) are informed about climate-related risks and opportunities. An MIS Manager may use cross references, but should keep in mind the requirements in relation to fair presentation and coherence [NZ CS 3 paragraphs 6-9, and Table 2].

This disclosure also requires an MIS Manager to provide information on the process and frequency by which management-level positions or committees engage with the governance body in respect to the fund. The use of the word 'engage' in this disclosure requirement was intentional to reflect that the dialogue with the governance body is clearly seen as two-way, rather than mere reporting by management to the governance body.

Example voluntary disclosure

Governance of our activities related to Sustainable Investing is overseen by our Sustainable Investing Oversight Committee. The Committee's members include full participation by the AM Chief Risk Officer, AM Chief Legal Officer, AM Chief Compliance Officer and all senior control functions within the organization. SIOC can escalate risk and controls issues, including climaterelated risks to the Business Control Committees (BCC) of the relevant region, and in turn, the relevant legal entity board where required.

J.P. Morgan Asset Management 2023 Global TCFD Report, p.11.

Management's role > organisational structure [NZ CS 1 paragraph 9(b)]

NZ CS 1 | NZ CS 2 | NZ CS 3

This disclosure gives primary users a contextual overview of where assigned responsibilities lie within the MIS Manager.

An MIS Manager should explain the position(s) within management where the assigned management-level responsibilities described in paragraph 9(a) reside. An MIS Manager should include information about the reporting lines to the governance body.

Delegated investment management (including look-through retail funds), and funds managed via a passive strategy

If an MIS Manager delegates investment management decision-making to a third party, the overall responsibility for the oversight of climate-related risks and opportunities nevertheless remains with the MIS Manager. An MIS Manager should explain their third-party manager selection process, the onboarding process undertaken with the third-party, and how the third-party's climate-related risk and opportunity duties are monitored and reviewed by the MIS Manager. The MIS Manager should also explain what factors are considered in deciding whether to continue offering the product managed by the third-party, or continuing to delegate investment management decision-making to a third party. In the case of a passive investment strategy, the MIS Manager should state what steps (if any) they have taken to identify and

monitor the climate-related risks and opportunities affecting the passively managed fund. This links to risk management disclosures [NZ CS 1 paragraph 17].

Further guidance on the use of third-party providers

FMA, 2023. Climate-related disclosures regime and the use of third-party providers.

Management's role > processes [N CS 1 paragraph 9(c)]

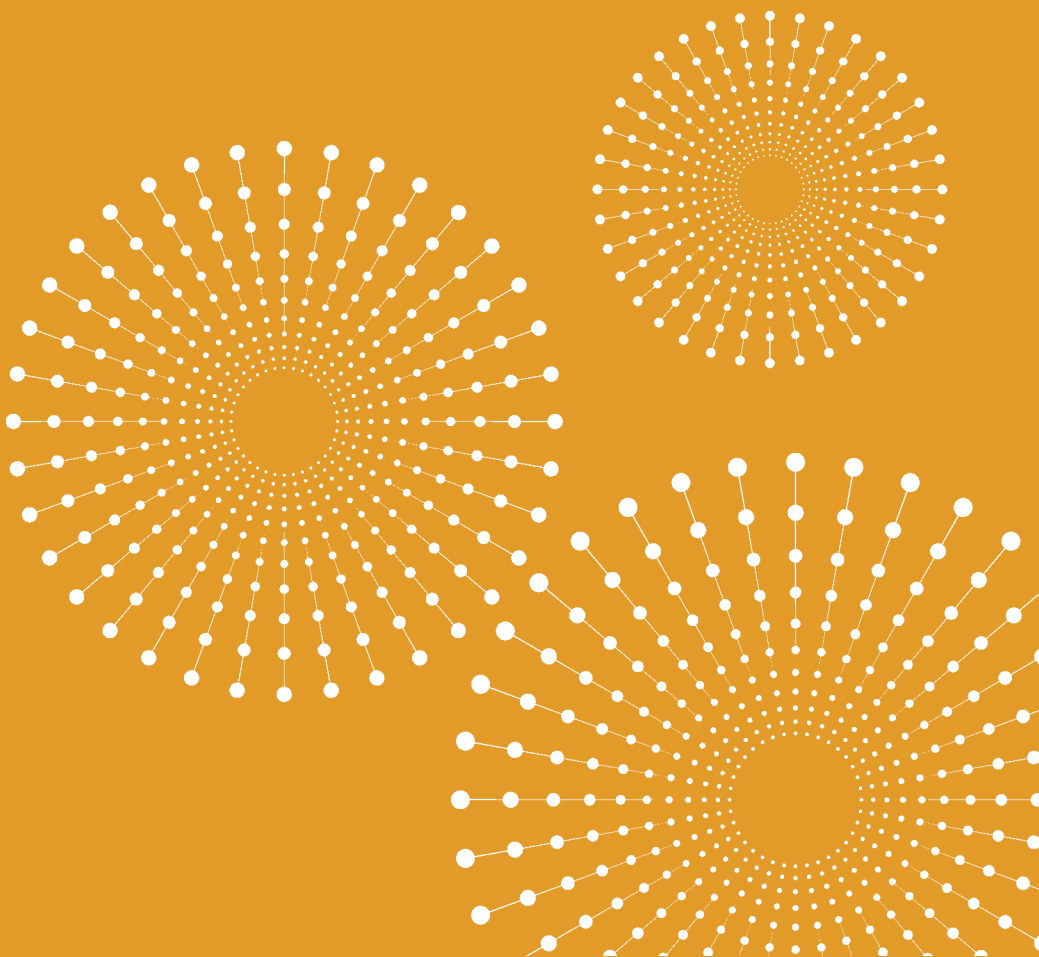
NZ CS 1 | NZ CS 2 | NZ CS 3

Primary users may be interested in understanding the extent to which management actively engages in exercising the climate-related roles and responsibilities assigned to them by the governance body.

Disclosure 9(c) should include a summary of how, and how often, management is involved in monitoring and making decisions about climate-related risks and opportunities.

An MIS Manager may consider including any dedicated controls or procedures that are in place in respect of the fund if material to the primary user.

Strategy



8. Strategy

The Strategy section of NZ CS 1 requires an MIS Manager to cover a broad range of issues. An MIS Manager must demonstrate its understanding of the current and anticipated impacts –including the financial impacts – of climate-related risks and opportunities on its fund(s). These impacts may need to be expressed in range estimates, due to both the uncertainties associated with climate change and the relatively early stage of this type of analysis.

An MIS Manager needs to disclose in relation to their scheme if all funds within the scheme share a common strategy, or on a fund-by-fund basis where fund investment strategies within schemes differ.

For an MIS Manager, strategy disclosures should be made in relation to the investment strategy (or strategies) set out in its SIPOs or, alternatively, wherever the investment strategy of its funds is most clearly articulated (which can be cross referenced if desired). There are requirements in relation to cross referencing in NZ CS 3 paragraphs 16-19.

There are well-acknowledged, significant uncertainties and complexities involved in analysing the current and anticipated impacts (and subsequent financial impacts) of climate change, particularly where an MIS Manager manages schemes and funds encompassing entire geographies, asset classes and sectors. Therefore, beginning with a qualitative analysis of risk and opportunity could be a pragmatic option. This approach also allows for MIS Managers to have regard to the emerging concerns regarding the limitations of commonly used climate-change scenarios in financial services, as clearly outlined recently by the United Kingdom's Institute and Faculty of Actuaries (IFoA).

The IFoA notes that: "Public reference scenarios, including the **NGFS** [Network of Central Banks and Supervisors for Greening the Financial System], rely on models referred to as computable general equilibrium models (CGE). CGE models were created by the climate-science community to inform high-level public policy making. Traditionally, they have been used to assess the socio-economic impacts of various climate pathways. The macroeconomic modules of these models had a very different use case from how the financial sector is currently applying them. CGE models results are presented as long-term outcomes, without considering possible upheaval or length of the **transition** process… Non-equilibrium [macroeconomic] models, such as the post-Keynesian E3ME model maintained by Cambridge Econometrics, still have limitations but are designed to simulate real-world economic dynamics more accurately."

An MIS Manager must disclose its strategy for responding to climate-related risks and opportunities. This needs to be supplemented with information about the MIS Manager's views on how the current and anticipated impacts of climate-related risks and opportunities might materially affect the fund's investments, and disclosures of its transition planning and any associated financial plans to deliver it.

The Strategy section also includes disclosures on the use of scenario analysis to test the **resilience** of the fund and the investment strategy(ies) under different temperature outcomes.

An MIS Manager will need to disclose which scenarios it has used, and their related methods and assumptions [NZ CS 3 paragraph 51]. The MIS Manager should include qualitative narratives and explanations to mitigate the fact that not all climate-related risks can be captured quantitatively. at least within the same quantitative analysis.

Sector-level collaboration on scenario analysis can play an important role in enabling an MIS Manager to provide high-quality, consistent, and comparable disclosures on a fund to primary users. If adapted well by the MIS Manager, it can assist in satisfying primary users that the tool of scenario analysis has been deployed in a way that has challenged the MIS Manager's thinking about its investment strategy and business model in relation to the fund. The Financial Services Council of New Zealand has released Climate Scenario Narratives and Guidance for the Financial Sector.

Nevertheless, MIS Managers need to consider the relevance and applicability of sector-level scenario analyses to the schemes and funds they manage. As noted by the Singaporean sovereign wealth fund, GIC:

"[the] standard scenario sets often overlook how market pricing could reflect forward-looking expectations of physical and transition risks. Relying only on standard scenario sets could result in limited diversity of views across the industry about how future transition paths could evolve in markets. This can lead to a lack of preparedness for potential shocks and less portfolio resilience."
GIC, 2023. p.7.

Further guidance on strategy

Institute and Faculty of Actuaries, University of Exeter, 2023. The Emperor's New Climate Scenarios: Limitations and assumptions of commonly used climate-change scenarios in financial services.

Financial Services Council NZ, 2023. Climate Scenario Narratives and Guidance for the Financial Sector.

GIC, 2023. Integrating Climate Scenario Analysis into Investment Management: A 2023 Update. p.7.

XRB. Climate-related disclosures resources.

TCFD, 2021. Implementing the Recommendations of the Task Force on Climate-Related Financial Disclosures. p.18.

8.1. The fundamentals of climate-related risk

In the Guidance for all sectors we have laid out how to conceptualise climate-related impacts based on the IPCC's underlying concepts. This will be a helpful reference point for MIS Managers needing to interpret the climate disclosures made by other CREs.

However, for an MIS Manager considering disclosure in respect of its fund, we suggest a different approach to conceptualising climate-related impacts, noting that many approaches exist.

An MIS Manager should adopt an approach to climate-related risk and opportunity identification and analysis that is the right fit for the fund and the perceived degree of risk.

There are many different approaches available to an MIS Manager when it comes to risk assessment and analysis. The UN Environment Programme Finance Initiative has published a landscape of available climate risk tools (many of which are quite mature and highly quantitative) ,and a report that includes 15 case studies of financial institutions using those tools. Much of the guidance available is drafted with larger entities in mind, with a high degree of interest in exploring highly quantitative approaches.

The **NGFS** notes: "Assessing the impacts of climate change can be challenging [for financial institutions] because of the uncertainties around the course of climate change itself, the breadth and complexity of the transmission channels, the [direct and indirect] impacts and the need to consider, in aggregate, some combination of both physical and transition risks."

Transmission channels are the causal chains linking climate risk drivers to fund level impacts. This is an increasingly common way of conceptualising climate-related impacts. We have drawn on this approach with the intention of encouraging some degree of commonality in how transmission channels are conceptualised and analysed, and therefore disclosed.

As noted by Monasterolo et al: "On the one hand, climate change can affect firms' investment and financial institutions' financing decisions by introducing new sources of risk (for example, by decreasing the profitability of non-financial institutions to which financial institutions are exposed). On the other hand, financial institutions' investment decisions affect the realisation of climate scenarios, through adjustments in risk assessment, potentially increasing the risks they are exposed to."

The impacts of climate on the financial system (also referred to as 'market risks') are often missed by MIS Managers and other financial institutions. Therefore, the feedback between the financial system and the economy and climate can also be missed. This is relevant to understanding climate risk, particularly the timeframes over which risks can materialise.

An MIS Manager should start with a broad approach to understanding climate-related risks and opportunities that cover the transmission channels that could impact its fund in a **top down** manner concerning both the following aspects.

- Economic impacts and the macroeconomy:
    - Including through the geographies and the sectors of the economy to which they consider themselves exposed.
- The financial system, including:
    - Changes to firms' expectations – Firms' and investors' expectations changing due to physical and transition risks and opportunities. It is essential to consider the potential for investors, banks, insurers and others to make changes to their decision-making policies and practices before climate-related physical and transitional risks and opportunities materialise. This is also referred to as 'sentiment shock'.
    - Repricing – Market values of companies and financial assets changing due to physical and transition risks and opportunities, also referred to as 'pricing in effects'. Again, this can take place in advance of the given physical climate event

or climate policy occurring, triggered by things such as mandatory information disclosures or entities doing their own analysis. It can also exacerbate the disorderly nature of the transition.

- Volatility – Climate-related events could result in increased market volatility. An MIS Manager should consider when and how much markets will price in future climate change-related risks, and whether markets over-react to climate change-related policies and news. Trying to predict the timing and directions will be very difficult, and primary users will want to know how an MIS Manager is setting itself up to manage potential future market volatility arising from climate change.

Alternatively, an MIS Manager can take a **bottom up** approach, by considering and aggregating climate risks for individual companies and/or assets. This may be relevant and workable for only some managers, and can be a challenge until more transparency is available from entities on their own risks and opportunities and better data becomes available across all asset classes.

The top down and bottom up approaches are both very useful ways for MIS Managers to obtain insights. However, there are many practical difficulties at present due to the lack of reliable data. We expect that the situation will improve over time.

Figure 2 shows a simple conceptual model for MIS Managers to use to consider how physical and transition drivers can impact its funds.

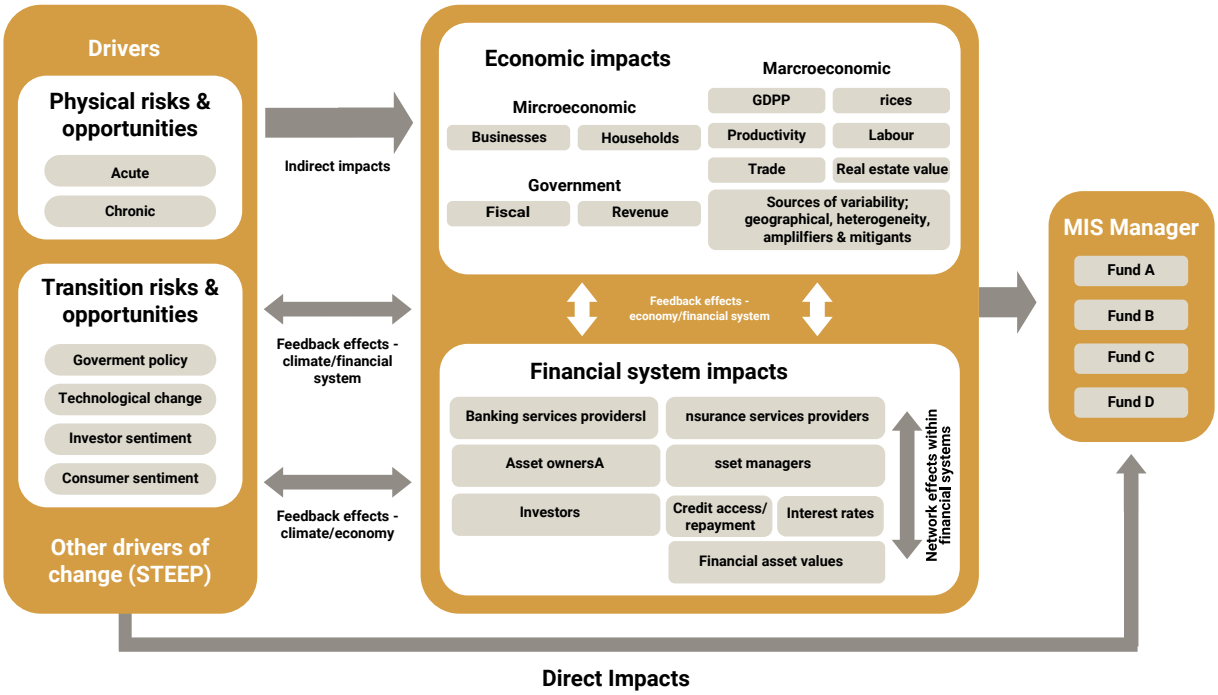


Figure 2: A simple conceptual model for MIS Managers to use to consider how physical and transition drivers can impact its fund. We have drawn on research and guidance regarding transmission channels. This diagram has been adapted from Bank for International Settlements, p.4. The original diagram was developed for banks and had a strong focus on integration of physical and transition risks into the Basel Framework for financial risk management.

Methods and uncertainty
[NZ CS 3 paragraphs 47-54]

NZ CS 1 NZ CS 2 **NZ CS 3**

An MIS Manager must disclose the methods, assumptions, and estimation uncertainty associated with the disclosure of current financial impacts on its fund. Materiality applies when disclosing information on methods and uncertainty.

In the investment field, information can tend to be relative (compared to alternative investment options) and not absolute because of the inherent uncertainty and subjectivity involved with investment.

Many physical and transition impacts are inherently not relative and so can be difficult to factor into existing analysis. Rather, they are systemic and impact fund managers globally. Physical and transition impacts are also easier to understand when analysed over long time horizons, starting with a broad range of qualitative factors that are changing, rather than very short horizons looking at a narrow range of quantitative metrics and data.

Disclosures in respect of a fund should be clear about the degree of uncertainty involved in current and anticipated impacts, risks and opportunities. This could, in many cases, be higher than the uncertainty facing corporate CREs, and therefore more disclosure will be appropriate. The uncertainty is likely to be higher the more diverse the makeup of a given fund.

Further guidance on climate-related risks

Network for Greening the Financial System (NGFS).

Bank for International Settlements, 2021. Climate-related risk drivers and their transmission channels.

Bank for International Settlements, 2022. Principles for the effective management and supervision of climate-related financial risks. Primarily for banks.

UN Principles for Responsible Investment, 2020. Climate change for asset owners.

UN Environment Programme finance initiative.

Climate Financial Risk Forum, 2021. Climate Financial Risk Forum Guide 2023: Risk Management Use Cases, pp.13-16.

8.2. Strategy disclosure objective
[NZ CS 1 paragraph 10]

NZ CS 1 NZ CS 2 NZ CS 3

The objective of the Strategy disclosures is to enable primary users to understand how climate change is currently impacting their investment, and how it may do so in the future. This includes the scenario analysis an MIS Manager has undertaken in respect to the fund, the climate-related risks and opportunities identified, the anticipated impacts and financial impacts of these, and how the investment will be positioned as the global and domestic economy transitions towards a low-emissions, climate-resilient future.

8.3. Current impacts and financial impacts [NZ CS 1 paragraph 11(a)]

NZ CS 1 NZ CS 2 NZ CS 3

Primary users want insight into how climate currently affects their investments. Therefore an MIS Manager needs to understand the current physical and transition impacts of climate-related risks and opportunities, and how these have affected the fund to date.

This is a relatively new area of disclosure globally, with little precedent to draw from. Nevertheless, it is an important area of disclosure as it enables primary users to ascertain whether an MIS Manager is aware of current climate-related impacts . Having this understanding sets the MIS Manager up to more robustly cross-check future-looking risks, opportunities, anticipated impacts, and financial impact disclosures with current-day impacts and financial impacts. From a primary user perspective, this also provides insight into the fund's level of **exposure** to future climate events. Changes in a fund's financial performance in the current reporting period can help identify these impacts, but it will unlikely be instructive alone and requires broad thinking about what has happened across the economy, society, and environment in the recent past.

Climate-related metrics can be used for measuring and describing these impacts on the fund [NZ CS 1 paragraphs 21(a) to (c)].

This disclosure requires an MIS Manager to describe current climate-related impacts. Sub-disclosures in paragraphs 12(a) to 12(c) form the basis of disclosure 11(a).

Current impacts are those which have been experienced by the fund in the reporting period covered by the climate-related disclosures. In other words, they have moved from being a risk or opportunity (both future-looking) to something that has occurred, i.e. an impact.

Further guidance on current impacts

TCFD, 2021. Guidance on Metrics, Targets, and Transition Plans, pp.46-52.

TCFD, 2021. Implementing the Recommendations of the TCFD, pp.74-78.

European Union, 2019. Guidelines on reporting climate-related information, pp.13-14.

Department for Business, Energy and Industrial Strategy, 2022. Mandatory climate-related financial disclosures by publicly quoted companies, large private companies and LLPs Non-binding guidance, pp.12-14.

Current impacts [NZ CS 1 paragraph 12(a)]

NZ CS 1 NZ CS 2 NZ CS 3

The current impacts disclosure provides primary users with information on an MIS Manager's understanding of how climate-related impacts have affected their investments under management in the reporting period. This information provides primary users with an illustration of the MIS Manager's views of climate-related impacts, and baseline information

about the exposure and sensitivity of the MIS Manager's investments under management to these climate-related impacts.

In completing this disclosure, an MIS Manager should describe how, if at all, climate-related physical and transition impacts have affected the fund.

Ultimately, judgement will be needed as to whether the MIS Manager considers impacts to be climate-related or not. There will likely be situations where the role of climate change is immaterial because its impacts on the fund are minor or uncertain.

An MIS Manager is not required to undertake analysis to compare an event and its impacts with a world where climate change does not exist. However, scientific climate change attribution studies are becoming increasingly common, and can provide an MIS Manager with more concrete links between impacts and climate change. For an MIS Manager, this type of information will be most useful at a global level., The World Weather Attribution and other similar organisations are increasingly monitoring extreme weather events and undertaking rapid attribution studies.

Identifying current impacts

This section provides examples of working through an identification process.

1. **Review previously identified climate-related risks, opportunities, and anticipated impacts. Have any of these anticipated impacts been experienced in the current reporting period?**
2. **Bearing your fund in mind, think back across the current reporting period and consider:**
    - Acute or discrete events (e.g. physical storms, droughts, transition-related protests, legal action affecting underlying companies or assets), or categories of events where an individual event is too granular to meaningfully assess
    - Chronic or ongoing, multi-faceted change (e.g. impacts on GDP and inflation, the cascading effects of changing physical temperatures, transition-related regulations), which are likely harder to distinguish from non-climate related changes
    - benefits realised (i.e. via changes that led to higher market values of companies held).
3. **Have any of these events, or the actions of others identified in question 2, impacted the fund? And if so, were these events related to physical changes and transition changes being driven by climate change?**

Example thought process of identified opportunity with current impact

Fund X has a high proportion of its investments in renewable energy companies, and heat pump, electric vehicle and solar panel manufacturers. These companies are mainly based in the United States market and are being impacted by the imposition of new policies, regulations or bans.

After analysing the impact, the MIS Manager concluded that the US Inflation Reduction Act 2022 positively impacted on value of the assets in the fund:

- because the companies are receiving direct subsidies
- because there was increased demand for the companies' products from American consumers because they now have access to subsidies for electric appliances and vehicles
- via market repricing and sentiment shock, because the policy was not expected by markets.

In this example thought process, the MIS Manager concluded that the previously identified opportunity did have current impacts in the form of increased value of assets held in the fund.

Example voluntary disclosure of transition impacts including financial impacts

This approach effectively uses a reference portfolio benchmark to compare with a world where no divestment activity was undertaken. [Note the reference to $NZ800 million would be, in our view, disclosed as current financial impacts, and the activities of removing high emissions investments would be disclosed as the impacts].

NZ Super Fund – NZ Super Fund releases Climate Change Report

One of the core elements of the NZ Super Fund Climate Change Investment Strategy is to reduce the carbon intensity of the Fund's investments and its exposure to fossil fuel reserves. In 2016, targets were set to reduce the Fund's emissions intensity by 20 percent and its exposure to potential emissions from fossil fuel reserves by 40 percent by 2020.

"We're proud to say we met our targets early. The aim of this strategy is to lower the entire Fund's exposure to investments that are most at risk from climate change policy, and to mitigate the risks during the transition to creating a low-carbon economy. We do this by removing from our portfolio those investments with the highest emissions intensity and potential emissions from reserves.

"Although still in an early stage, it's positive to note that after running the strategy for several years we haven't seen an adverse effect on performance. In fact, the carbon exclusion policy has added approximately NZD800 million to the Fund and about 60 basis points per annum to performance since it was brought in. So not only has this approach reduced what we considered to be an insufficiently rewarded risk, it has also added return."

Example thought process of identified event with no current impact

Fund X has a high geographical concentration of United States-based emissions-intensive companies in the current period.

The MIS Manager concluded that the US Inflation Reduction Act 2022 could have impacts on the fund via direct impacts to the underlying companies:

- because they are exposed to new bans or policies or emissions standards, or
- via market repricing or sentiment shock because the policy was not signalled or expected by markets.

After analysing the impact of the introduction of the Act on fossil fuel-intensive companies, the MIS Manager concluded that the impacts impact are largely indirect and has not had any material financial impacts.

In this example thought process, the MIS Manager concluded that the new policy had no current impact on Fund X.

In some cases, it is not straightforward to separate climate-related from non-climate-related impacts or to separate climate-related impacts from other sustainability-related impacts. Some (particularly chronic) impacts may have originated in previous years, but if they present a current impact, primary users will expect a description of how these impacts continue to affect the fund, at least at a high level. For MIS Managers in particular, the noisy nature of financial markets tend to make the discernment of current impacts particularly difficult, and can cloud the ability to disclose except in rare cases. We encourage MIS Managers to consider how they are monitoring and understanding current climate impacts, particularly as the physical and transition impacts are both expected to intensify globally.

Current financial impacts [NZ CS 1 paragraph 12(b)]

NZ CS 1 NZ CS 2 NZ CS 3

This disclosure provides information about the current financial impacts on a fund's physical and transition impacts identified in paragraph 12(a). This is the translation of impacts into financial impacts on the underlying financial performance of the investee companies or financial instruments in question, within the current reporting period. For primary users, this illustrates the current financial sensitivity of the fund to climate-related impacts. Primary users can use this information to determine how well the MIS Manager is managing the current climate-related impacts on the fund. They can also use it to gauge the extent to which future climate-related risks and opportunities might affect the financial performance of the fund over time.

An MIS Manager is required to disclose quantitative information unless it is unable to do so, in which case it must describe the current financial impact in qualitative terms. It is important to note that quantitative and qualitative information are not mutually exclusive. If an MIS Manager can quantify the current financial impacts on the fund, understanding the context (in a qualitative sense) is relevant and material information. Quantitative information should be disclosed with the qualitative information, not instead of it.

Where quantitative information is disclosed, it can be expressed as a single value or as a range. Where current financial impacts carry significant uncertainties, they should be expressed as ranges.

Example of thought process around providing qualitative information for current financial impacts

An MIS Manager has become aware of taxes and bans on highly emissions-intensive European companies in Fund X. The asset values of the companies have declined. The MIS Manager considers it unworkable to separate out what was climate-related and what was driven by other factors.

In this example the MIS Manager discloses that there was a large drop in asset values for the affected percentage of the fund but also states that it is unclear how much of the decline was attributable to the new tax and bans.

There may be instances when an MIS Manager has identified a current physical or transition impact, but there are no financial impacts in the current reporting period. Disclosing that there are no current financial impacts can provide material information.

It is useful to start disclosing qualitative information and build toward quantitative disclosures over time as more reliable data become available.

Fair presentation
[NZ CS 3 paragraphs 6-9]

NZ CS 1 | NZ CS 2 | **NZ CS 3**

An MIS Manager is not required to disclose what proportion of any one specific event (such as a cyclone) that may have impacted a fund resulted from, or may be attributable to, climate change. However, if it believes this information would be material to primary users, it may include attribution information within its reporting in addition to the required impact disclosures. For example, if reputable published evidence states that an event that had a large impact on the fund was 1.2 times the magnitude the event would have been without climate change, then an MIS Manager may include this information.

Adoption provision 1
[NZ CS 2]

NZ CS 1 | **NZ CS 2** | NZ CS 3

An MIS Manager may choose to apply adoption provision 1 providing an exemption from this requirement in its first reporting period.

Methods and uncertainty
[NZ CS 3 paragraphs 47-54]

NZ CS 1 | NZ CS 2 | **NZ CS 3**

An MIS Manager must disclose the methods, assumptions, and estimation uncertainty associated with the disclosure of current financial impacts on its fund. Materiality applies when disclosing information on methods and uncertainty.

An MIS Manager must be transparent about any issues with data availability when assessing the impacts on the fund. It should describe the methods and tools (if any) used to assess impacts.

Current financial impacts > unable to quantify
[NZ CS 1 paragraph 12(c)]

NZ CS 1 | NZ CS 2 | NZ CS 3

An MIS Manager should provide a description of the process it has followed in attempting to quantify the current financial impacts. Explaining what was considered, why its quantification is challenging, and how these challenges might be overcome in future, may assist primary users in evaluating these disclosures.

Adoption provision 1
[NZ CS 2]

NZ CS 1 | **NZ CS 2** | NZ CS 3

An MIS Manager may choose to apply adoption provision 1 providing an exemption from this requirement in its first reporting period.

8.4. Scenario analysis [NZ CS 1 paragraph 11(b)]

NZ CS 1 NZ CS 2 NZ CS 3

Background

The guidance on scenario analysis in this document focuses on the disclosure requirements in NZ CS relating to scenario analysis. We published separate process or method guidance in July 2023 called Sector scenario development: Getting started at the sector level.

We are also proposing to publish a second process or method guidance by the end of 2023, called Entity scenario development: Getting started at the entity level.

By 'scenario analysis process' we generally refer to the TCFD's six-step scenario analysis method, which includes the steps of constructing climate-related scenarios, as well as analysing them by placing their business model and strategy inside them. This is further elaborated on in our scenario analysis guidance referred to above.

An MIS Manager can attempt to undertake scenario analysis internally rather than relying entirely on third-party data providers that they have existing relationships with. It is important to avoid assuming that an existing data provider is best placed to support an MIS Manager on scenario analysis. An MIS Manager should consider assessing the marketplace for support, and the range and types of support available, including more basic facilitation services for an internal process and free tools for scenario analysis. The FMA has guidance on the use of third-party providers.

Scenario analysis offers one of the few routes available to an MIS Manager to systematically explore and prepare for uncertain future change.

Primary users will be interested in understanding the scenario analysis process the MIS Manager has followed, as well as what the core assumptions underpinning the analysis were. See the discussion below relating to NZ CS 3 methods and assumptions disclosures for further information.

Discussion

The focus of the disclosure requirement in paragraph 11(b) of NZ CS 1 is on the **process** of scenario analysis rather than the impacts themselves. In addition, an MIS Manager may choose to employ scenario analysis to better understand the future-facing aspects of:

- the climate-related risks and opportunities disclosed under NZ CS 1 paragraph 11(c)
- the anticipated impacts and financial impacts of climate-related risks and opportunities disclosed under NZ CS 1 paragraph 11(d)
- how their business model and strategy might change to address their climate-related risks and opportunities, disclosed under NZ CS 1 paragraph 16(b).

The outputs of the scenario analysis may be useful to inform the disclosures in paragraphs 11(c), 11(d) and 16(b) but use of these outputs is not required by NZ CS.

Scenario creation and analysis should not be a one-time process. Entities should refresh their scenarios as part of their strategic planning cycle. For an MIS Manager this can include integration into portfolio selection and investment decision-making (beyond risk management). This strategic planning cycle occurs at varying frequencies, often determined by the characteristics of the market or markets in which the MIS Manager operates. These disclosures are required at each reporting date, even when the underlying scenario analysis has been conducted in a previous reporting period. These disclosures may therefore remain unchanged until a new or refreshed scenario analysis is undertaken.

This disclosure requires an MIS Manager to describe the scenario analysis it has undertaken. Sub-disclosure in paragraph 13 forms the basis of disclosure 11(b).

Scenario analysis undertaken [NZ CS 1 paragraph 13]

NZ CS 1 NZ CS 2 NZ CS 3

The intent is to give primary users satisfaction that challenging and plausible climate-related scenarios have been used, that the business model and investment strategy have been tested, and that the MIS Manager is integrating this tool into its decision-making.

The implications of scenario analysis for the MIS Manager's business model, investment strategy, and fund management strategy should be, due to the nature of climate change itself, of critical strategic importance. The results of scenario analysis are not so much about written outputs, rather an increased understanding by the MIS Manager of the disruption ahead, and the key challenges faced by the entities it is invested in. If the implications are not indicative of short, medium, and long-term disruption, market volatility, repricing and expectations changing, the scenario analysis is unlikely to meet the TCFD's criteria of plausible, challenging, and coherent. The FMA has an information sheet detailing its compliance expectations of scenario analysis disclosures.

The business model and investment strategy should be considered in this process because they are highly relevant to the MIS Manager's ongoing ability to manage the risk within the fund. If an MIS Manager has a business model that lends itself to being highly reliant on data providers, and with little internal capacity for risk management, this model should be tested with different climate-related scenarios. That would enable the MIS Manager to consider whether any business model or strategy changes are necessary, specifically to manage the climate-related risk in its fund.

An MIS Manager may find quantified outputs from scenario analysis useful for disclosure in other areas, such as risks, opportunities and impacts, and financial impacts. However, the key purpose needs to relate to testing the **resilience** of the business model and investment strategy relevant to the fund. Quantified impacts only may not be sufficient to test the resilience of the strategy and business model.

An MIS Manager will need to apply judgement on how best to undertake scenario analysis –

for example, across similar funds or delving into more detail in areas considered to be more exposed to risk, or into certain asset classes with better data availability. The priority is to test the resilience of the business model and strategy of the MIS Manager in relation to its fund. Note that NZ CS 3 paragraph 20 allows for presentation of common information at a scheme level.

The New Zealand Financial Services Council's (FSC) climate scenario narratives for the financial services sector could provide helpful inputs for this disclosure (assuming the MIS Manager has used similar assumptions in its own scenario analysis). If different assumptions have been made, it may be useful to a primary user to know what these differences are. There is no requirement to use the FSC sector scenarios.

"Limiting warming to 1.5°C above pre-industrial levels would require transformative systemic change, integrated with sustainable development. Such change would require the upscaling and acceleration of the implementation of far-reaching, multilevel and cross-sectoral climate mitigation and addressing barriers. Such systemic change would need to be linked to complementary adaptation actions, including transformational adaptation, especially for pathways that temporarily overshoot 1.5°C (medium evidence, high agreement)." IPCC, 2018 Global Warming of 1.5°C

It is anticipated that the scenario analysis process will be iterative, with approaches improving over time. To start, scenario analysis might touch on a broad range of different aspects of physical and transition risk and opportunity. This will provide an overview of the climate-related risk and opportunity landscape, from which more detailed work can be planned. In subsequent years the MIS Manager might then opt to undertake a narrower, deeper dive into climate-related factors of greatest importance to the resilience of their investment strategy.

Overseas regulators are also publishing sector-specific and risk-specific guidance to help asset managers assess climate-related risks. For example:

- the Institute and Faculty of Acutaries (IaFoA) has published a UK case study on climate scenario analysis for pension schemes
- the Monetary Authority of Singapore has published guidelines that set out sound environmental risk management practices that asset managers can adopt.

Example voluntary disclosure

Macquarie has built an integrated understanding of the potential impacts of physical and transition risk over three years of scenario analysis spanning multiple geographies and industries. Referring to a prototypical equity portfolio of infrastructure assets, Macquarie used a blend of qualitative and quantitative impact data to gauge net asset values to 2050 (Macquarie 2021, p.12-19). Macquarie used a 'prototypical asset approach', which covered the physical climate risk impacts to their infrastructure equity investments in the utilities, oil and gas sectors (Figure 3).

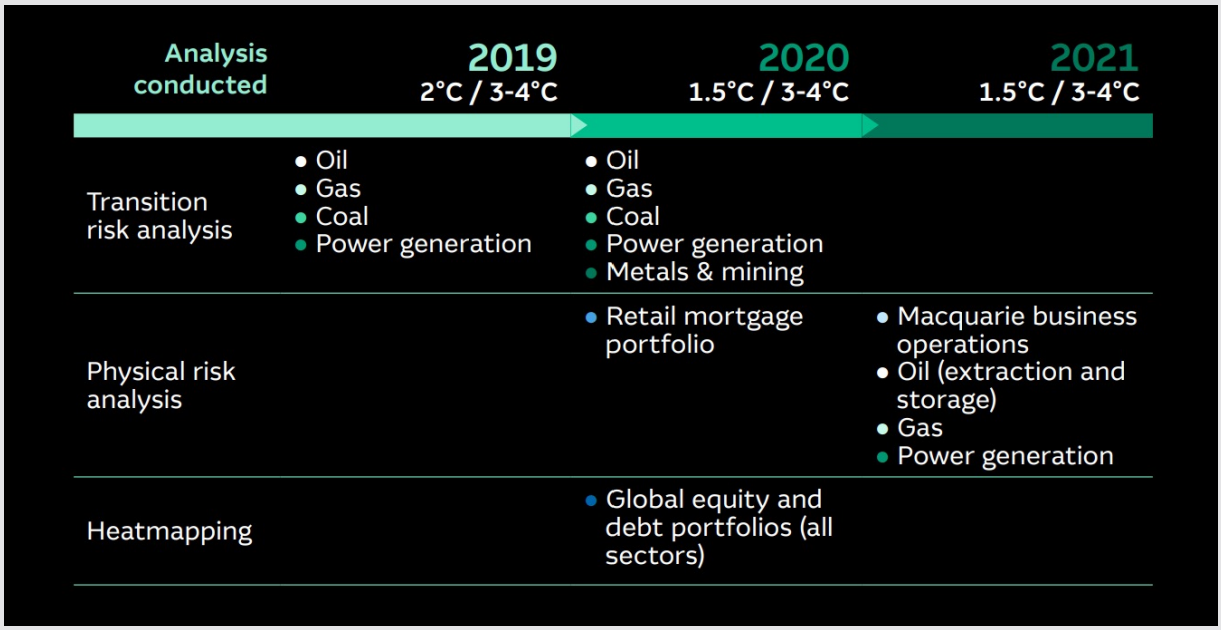
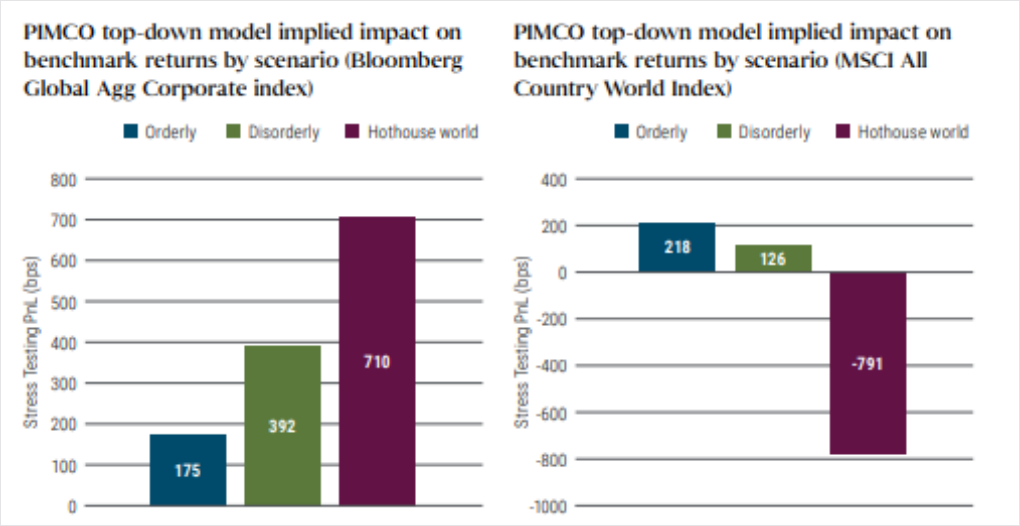


Figure 3: Illustration of the approach used for scenario analysis across lending and equity portfolios (Macquarie 2021, p.13).

The Securities and Futures Commission of Hong Kong (2021) provides several examples of different approaches to scenario analysis that asset managers have taken. Similarly, the Climate Financial Risk Forum (2021) provides case studies of the practical application of scenario analysis by asset managers.

Example voluntary disclosure

PIMCO created an exploratory macro model to overcome data challenges, complexity and uncertainty in estimating the impacts of physical and transition risk exposure of its holdings at sectoral and regional levels of analysis (PIMCO 2021, pp.38-43). The impact on return is shown in Figure 4.



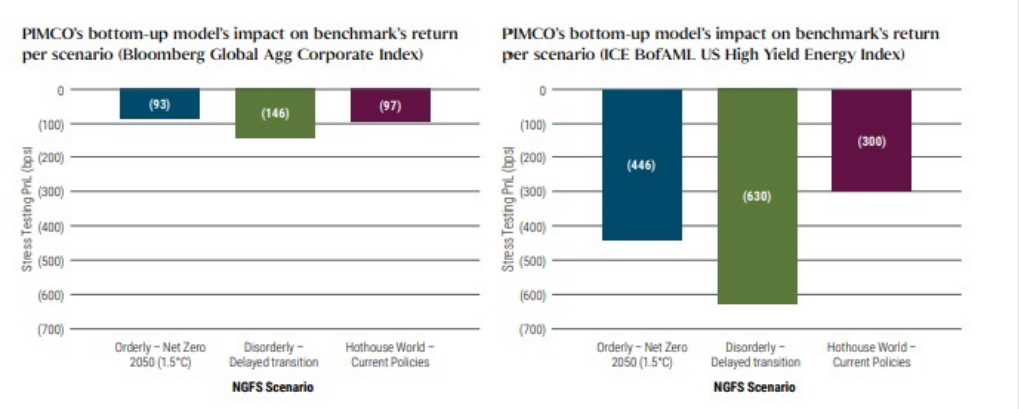


Figure 4: Climate risk scenarios impact on return, (PIMCO 2021, pp.39, 43).

Description of scenario narratives [NZ CS 3 paragraph 51(a)(i)]

NZ CS 1 NZ CS 2 NZ CS 3

To fit the **TCFD**'s definition, a scenario narrative "tells a story with a sequence of events; a plot; a beginning, middle, and end; characters, and a setting describing developments in the scenario around different economic, technical, environmental, and social dimensions".

The description needs to be an accurate reflection of the full underlying scenario. An MIS Manager should think of this like creating a movie trailer of the underlying movie. The key defining characteristics of the movie should be included, so the general plot is understood. For example, the Climate Scenario Narratives for the Financial Services Sector (pp.29, 38, 49) include a summary paragraph, then an outline of the environmental, social, economic, policy, and technology outcomes for each scenario. This description should get as specific to the sector and fund level as possible.

In most cases we would expect that this description will be sufficiently high level to avoid concerns about the disclosure of commercially sensitive information. However, it does need to be accurate, and commercial sensitivity should not be used as an excuse not to disclose. See the discussion regarding the disclosure of commercially sensitive information in risks and opportunities in **section 8.5.**

Legal advice about whether the introduction of **ISSB**-aligned standards in Australia increase director liability risk states "under existing law, a forward-looking statement is not misleading merely because it later turns out to be wrong or based on science or methods that were later overtaken. A forward-looking statement which later turns out to be wrong might be found to have been made on a reasonable basis at the time, if for example it was consistent with the best available science at the time. Investors and courts do not expect companies to predict the unpredictable, but instead to make sensible disclosures on a reasonable basis, and to update earlier disclosures if they become misleading by reason of later events." Australian Council of Superannuation Investors Limited Advice, p18.

Time horizons, emission reduction pathways, relevance, data sources
[NZ CS 3 paragraph 51(a)(ii)-(v)]

NZ CS 1 NZ CS 2 NZ CS 3

The requirements in paragraph 51(a)(ii) to (v) are designed to focus on the assumptions about climate change and the other related high-level assumptions required to build plausible scenario 'worlds', rather than all the assumptions that make up the scenarios, or the actual climate-related scenarios themselves.

As an MIS Manager cannot use commercial sensitivity to avoid disclosures they must use their judgement. For instance, including detailed assumptions at the level of competition dynamics within the investment markets the MIS Manager operates in involving individually named competitors, or its internal business model and intellectual property assumptions, are likely to be commercially sensitive. However, generic assumptions at the level of whole economies, and issues clearly impacting the whole sector, are not likely to be commercially sensitive.

'Emission reduction pathways' refers to global emission reduction pathways that should also cover assumptions made about New Zealand's domestic emission reduction pathways.

In the construction of climate-related scenarios, and deciding on time horizons, it is important to strive to consider time frames that are not too long term and therefore considered irrelevant. Adapting longer-term scenarios to be short term can require additional work in scenario development, such as considering how markets may reprice risks (for example, when markets will begin to reprice assets globally in response to the adoption of mandatory climate disclosures, not just the physical and transition risks playing out, which are likely to be a longer-term phenomena).

Standalone or integrated
[NZ CS 3 paragraph 51(b)(i)]

NZ CS 1 NZ CS 2 NZ CS 3

This is intended to provide primary users insights as to whether the scenario analysis process is being done in an ad hoc way, or whether it is being integrated into core strategy processes. For an MIS Manager, this most importantly relates to the development of its investment strategy, portfolio selection and investment decision-making. Our understanding is that this area of integration is still nascent for many, and therefore primary users will be able to use this disclosure to identify those that are more advanced.

Modelling
[NZ CS 3 paragraph 51(b)(iii)]

NZ CS 1 NZ CS 2 NZ CS 3

This disclosure is not intended to cover data that MIS Managers have used in constructing their scenarios – i.e. the use of existing data that is effectively somebody else's modelling outputs. Often, such modelling has been undertaken for different purposes, so the related limitations should be understood.

Undertaking modelling is different from scenario analysis as defined in NZ CS, although the two are sometimes conflated. There is too much complexity involved with climate change to use only one model to inform an MIS Manager's investment strategy. Modelling is inherently more

quantitative than the way scenario analysis is defined in NZ CS. See section 1.2 of the 2020 TCFD scenario analysis guidance for the broad types of modelling envisaged to be disclosed against this requirement.

Further guidance on scenario analysis

XRB, 2023. Scenario analysis: Getting started at the sector level.

FMA, 2023. Scenario analysis information sheet.

FMA, 2023. Use of third-party providers.

FSC, 2023. Climate scenario narratives for the financial services sector.

TCFD, 2017. Final Report: Recommendations of the TCFD, p.27.

TCFD, 2020. Guidance on scenario analysis for non-financial companies, pp.15-31, 33-41, 74-75.

CFRF, 2021. Climate Financial Risk Forum Guide 2021: Scenario Analysis.

IaFoA, 2020. Climate scenario analysis for pension schemes, pp.4-42.

Macquarie, 2021. TCFD implementation progress and scenario analysis, pp.12-19.

MAS, 2020. Guidelines on environmental risk management (asset managers), pp.8-9.

HK SFC, 2021. Circular to licensed corporations Management and disclosure of climate-related risks by fund managers – Appendix 2: Sample industry practices for managing climate-related risks, pp.17-19.

PIMCO, 2021. Bonds for changes: ESG Investing Report 2021, pp.38-43.

Australian Council of Superannuation Investors Limited, 2022. Advice regarding potential liability of directors under the ISSB draft standards for forward looking statements.

8.5. Risks and opportunities [NZ CS 1 paragraph 11(c)]

NZ CS 1 | NZ CS 2 | NZ CS 3

Primary users may want to understand the material climate-related risks and opportunities that an MIS Manager has identified, to allow them to gauge the fund's viability as an investment option.

An MIS Manager may consider the following types of risks:

- At the entity level (i.e. existing and potential investees).
- Market and asset-class risks.
- Risks linked to portfolio diversity/correlation.
- Manager-level governance and risk management processes, and use of data tools.
- Engagement with investee entities.
- Capabilities of subcontracted managers.

Disclosure of commercially sensitive information

Concerns about the disclosure of commercially sensitive information have been raised both internationally and in New Zealand, particularly regarding the disclosure of opportunities.

The TCFD is clear that an entity should not claim business confidentiality as a reason for avoiding disclosure. As a matter of principle, an MIS Manager should err on the side of disclosure to ensure its primary user has adequate information for decision making.

While an MIS Manager should err on the side of disclosure, judgement will be required as to the level of granularity of disclosures. In exercising that judgement, the MIS Manager should have regard for TCFD's suggested considerations from its Guidance on Scenario Analysis for Non-Financial Companies:

- whether the information provides the organisation with an economic benefit that translates into a competitive advantage because the information is unknown to its competitors
- whether making such information public may cause a considerable economic loss for the organisation
- consider a stepwise approach to disclosure – rather than decide not to disclose. For example, a company may start by disclosing **broader**, qualitative information and move to more **specific**, quantitative data and information over time.

Example voluntary disclosures

JP Morgan Chase provided an example of opportunity disclosure in its 2019 'Understanding Our Climate-related Risks and Opportunities report'. The information is described at a high level, avoiding specifics that could create any loss of competitive advantage.

Example of risks and opportunities: Schroders Climate (TCFD aligned) Report 2022 (p.27 table for managed investments).

This disclosure requires an MIS Manager to describe the climate-related risks and opportunities identified. Sub-disclosures in paragraphs 14(a) to 14(c) form the basis of disclosure 11(c).

Further guidance on commercial sensitivity

TCFD, 2020. Guidance on Scenario Analysis for Non-Financial Companies, p.52, section 3.4, consideration 4: Business Confidentiality.

TCFD, 2021. Guidance on Metrics, Targets, and Transition Plans, p.37.

TCFD, 2022. Strategy Workshop Session 3 – Strategy, slide 30.

Further guidance on examples of climate-related risks and opportunities

TCFD, 2021. Implementing the Recommendations of the TCFD, p.45.

CRFR, 2020. Climate Financial Risk Forum Guidance 2020 disclosures chapter, pp.24-26.

CRFR, 2021. Climate Financial Risk Forum Guide 2021 Risk management use cases, pp.13-16.

JP Morgan Chase, 2019. Understanding our climate-related risks and opportunities, pp.8-10.

Schroders, 2022. Schroders Climate (TCFD aligned) Report 2022, p.27.

Risks and opportunities > define time horizons [NZ CS 1 paragraph 14(a)]

NZ CS 1 | NZ CS 2 | NZ CS 3

Primary users may want to know how an MIS Manager has assessed and incorporated the time horizons involved in climate-related risks and opportunities in its strategic planning processes. Some risks and opportunities may already be evident, while some may evolve over periods of years, or even decades, into the future. Primary users need to clearly understand to what extent an MIS Manager's strategic planning horizons align with the timescales of the climate-related physical and transition risks and opportunities it has identified for the fund.

An MIS Manager should explain how it has selected short-, medium-, and long-term time horizons of relevance to the analysis of climate-related risks and opportunities, referencing how these relate to the MIS Manager's strategic planning and investment processes relevant to the fund.

The MIS Manager should consider explicitly pointing out any instances where a time horizon of climate-related risk and opportunity analysis [NZ CS 1 paragraph 19(b)] does not align with the time horizons of its strategic planning and/or investment decision-making process relevant to the fund, explaining why the incompatibility is immaterial, or how it will be addressed.

Risks and opportunities > physical or transition [NZ CS 1 paragraph 14(b)]

NZ CS 1 | NZ CS 2 | NZ CS 3

Primary users have come to expect risks and opportunities to be characterised as either physical or transition, as this is a framework for risk comparison that is now globally accepted.

Physical risks and opportunities are those resulting from climate change itself, including via temperature, rainfall, storms, extreme events, and sea-level rise.

Transition risks and opportunities are those resulting from the economic, regulatory, social, technological, and legal responses to climate change (Figure 5).

An MIS Manager should provide a short summary or table describing the characteristics of the climate-related risks and opportunities it has identified that are of specific relevance to its managed funds. The Climate Financial Risk Forum (CFRF) disclosure chapter has examples of transition risks and opportunities metrics, which can be applied to products (p.24-26).

CFRF risk management use cases (p.13-16) outline types of risks and suggested controls that could occur in the value chain of a fund. Examples include: the risk of greenwashing in relation to net zero commitments and marketing; product offering and documentation; client reporting, metrics and disclosure.

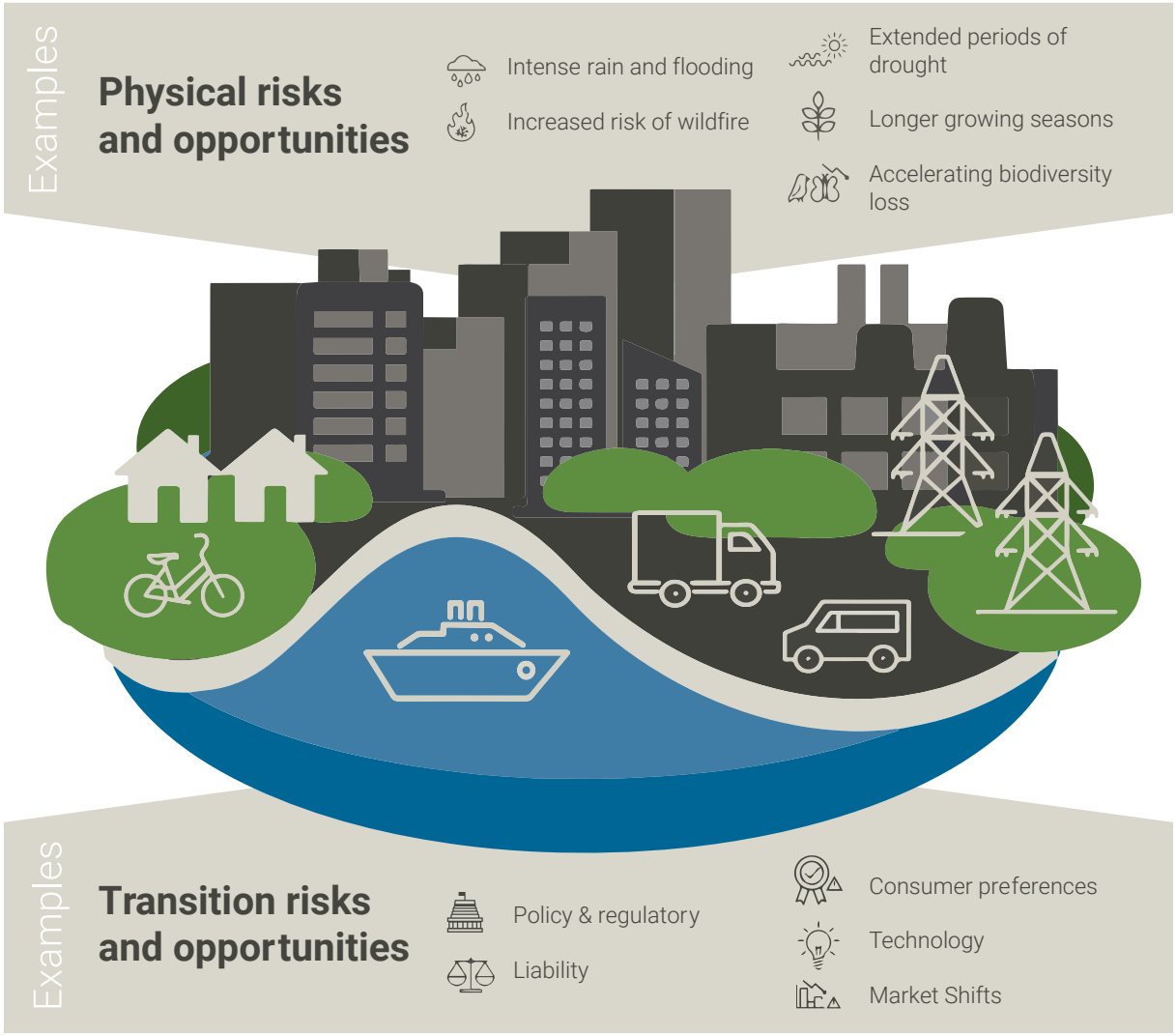


Figure 5: A conceptual breakdown of physical and transition risk

Risks and opportunities > input to processes [NZ CS 1 paragraph 14(c)]

NZ CS 1 | NZ CS 2 | NZ CS 3

This disclosure informs primary users about the relative prominence of climate-related risks and opportunities as an input into its internal capital allocation and decision-making processes relevant to the fund. This information also provides context for primary users about the MIS Manager's statements regarding risk mitigation and transition planning to follow.

An MIS Manager could meet this disclosure by providing a brief narrative description, figure or table illustrating how its analysis of climate-related risks and opportunities is integrated within its wider capital allocation and funding processes relating to its fund.

An MIS Manager could describe how, if it all, the need to account for climate-related risks and opportunities determines capital allocation processes in relation to the management of its fund. These could, for instance, take the form of investments in professional services providers, or internal staff capacity building and training, to assess the impacts of climate-related risks and opportunities on the value of current and potential investments. They could also include factors such as internal capacity building to better assess and manage those risks and opportunities internally.

8.6. Anticipated impacts and financial impacts [NZ CS 1 paragraph 11(d)]

NZ CS 1 | NZ CS 2 | NZ CS 3

Primary users may expect an MIS Manager to have a clear understanding of the anticipated impacts of climate-related risks and opportunities on the fund. As with the climate-related risks and opportunities identified under 11(c), those anticipated impacts and financial impacts will help inform a primary user's view of the fund's viability as an investment option.

It is important that an MIS Manager bears in mind that this information need not be precise to be relevant – in most cases it can and should remain high level. An MIS Manager should provide information conveying its considered opinion of the potential scope and scale of anticipated impacts, translating these estimations into financial terms to as great a degree as possible, so primary users can understand how material those impacts could be.

This disclosure requires an MIS Manager to describe the anticipated impacts of climate-related risks and opportunities on the fund. Sub-disclosures in paragraphs 15(a) to 15(d) form the basis of disclosure 11(d).

Anticipated impacts [NZ CS 1 paragraph 15(a)]

NZ CS 1 | NZ CS 2 | NZ CS 3

While disclosure 12(a) explores the current climate-related impacts facing a fund, this disclosure aims to inform primary users about plausible **future** impacts a fund may face resulting from climate-related risks and opportunities.

As with the current impacts disclosed under 12(a), an MIS Manager could describe the anticipated physical and transition impacts on a fund of:

- acute/discrete events (e.g. physical storms, droughts, transition-related protests, legal action affecting underlying companies or assets), or categories of events where an individual event is too granular to meaningfully assess
- chronic/ongoing, multi-faceted change (e.g. impacts on GDP and inflation, the cascading effects of changing physical temperatures, transition-related regulations), which are likely harder to distinguish from non-climate related changes
- benefits realised (i.e. via changes that led to higher market values of companies held).

For an MIS Manager, depending on the makeup of its fund, the scope of anticipated impacts could be too broad to facilitate a specific breakdown of impacts by asset (unless the manager

has a small pool of relatively unchanging investments). Therefore, disclosures developed on the basis of prototypical portfolio composition, at a level of detail no greater than asset class or sectors invested in, may prove to be the clearest way to communicate this information. An MIS Manager will need to apply judgement.

There are a growing number of examples in the disclosures of asset managers globally to show how this type of analysis can be undertaken and communicated to primary users.

Example voluntary disclosures

Allianz presents a heatmap of the impacts of climate transition risk on its proprietary investment portfolio (Figure 6).

Assets and business impact under transition scenarios (source: Allianz, excerpt)

Global		2°C					1.5°C				
		2020	2025	2030	2035	2040	2020	2025	2030	2035	2040
Energy	Integrated oil and gas	(M)	(M)				(M)				T
Energy	Oil and gas storage and transportation										
Energy	Coal and consumable fuels				T, P	T, P				T, P	T, P
Materials	Fertilizers and agricultural chemicals	(T)	(T)	(T)	(T)	(T)	(T)	(T)	(T)	P	
Materials	Aluminium										
Materials	Steel										
Industrials	Industrial conglomerates										
Industrials	Airlines	(T)	P				(T)	P			
Consumer discretionary	Auto components										
Consumer discretionary	Automobiles			P	P, T	T		P	P	P, T	P, T
Utilities	Electric utilities	P	(M)		P	P	P	(M)		P	P
Utilities	Renewable electricity				T	T				T	T

Risk enhancer:
P = policy
T = substitution technology
M = related market forces

Risk mitigator:
(P) = policy
(T) = little substitution technology
(M) = countering market forces

Risk:
Low
Medium
High
Very high

Figure 6: A heatmap representation of the impacts of climate change on Allianz's investments (Allianz, 2020, p.86).

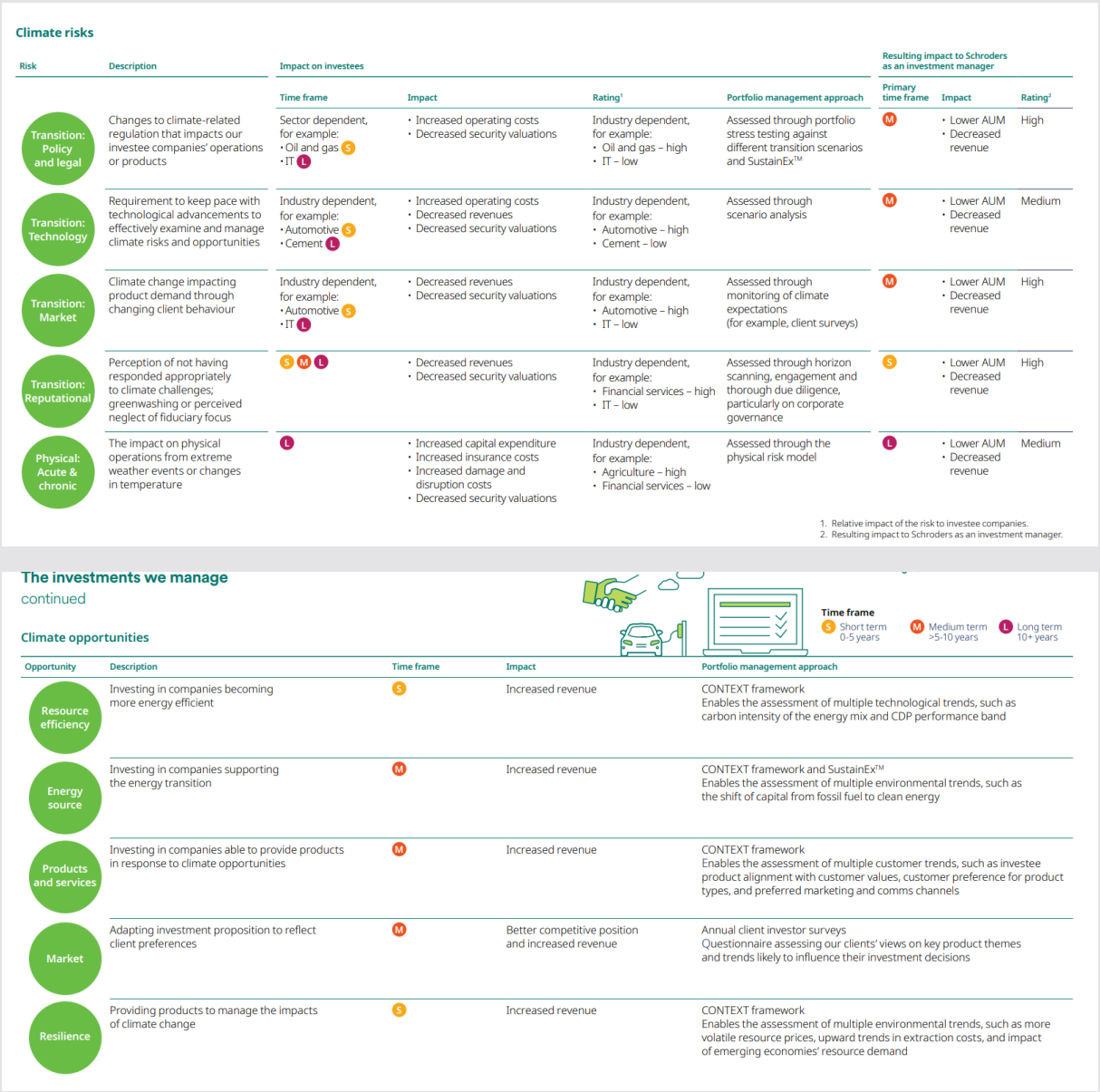
OPTrust provides a heatmap shown in Figure 7 (OPTrust, 2022, p.14).

Figure 5: Heatmap on climate impact on equity returns by sectors and countries[9] (20-year term)

Source: Ortec Finance Climate MAPS (2020), OPTrust Analysis

Figure 7: A heatmap representation of impacts of climate change on equity returns in selected geographies. (OPTrust, 2022, p.14).

Schroders provides a risk rating and descriptive representation of risks (Schroders plc, 2022, p.26-27) in Figure 8.



Climate risks

Risk	Description	Impact on investees				Resulting impact to Schroders as an investment manager		
		Time frame	Impact	Rating[1]	Portfolio management approach	Primary time frame	Impact	Rating[2]
Transition: Policy and legal	Changes to climate-related regulation that impacts our investee companies' operations or products	Sector dependent, for example: • Oil and gas S • IT L	• Increased operating costs • Decreased security valuations	Industry dependent, for example: • Oil and gas – high • IT – low	Assessed through portfolio stress testing against different transition scenarios and SustainEx™	M	• Lower AUM • Decreased revenue	High
Transition: Technology	Requirement to keep pace with technological advancements to effectively examine and manage climate risks and opportunities	Industry dependent, for example: • Automotive S • Cement L	• Increased operating costs • Decreased revenues • Decreased security valuations	Industry dependent, for example: • Automotive – high • Cement – low	Assessed through scenario analysis	M	• Lower AUM • Decreased revenue	Medium
Transition: Market	Climate change impacting product demand through changing client behaviour	Industry dependent, for example: • Automotive S • IT L	• Decreased revenues • Decreased security valuations	Industry dependent, for example: • Automotive – high • IT – low	Assessed through monitoring of climate expectations (for example, client surveys)	M	• Lower AUM • Decreased revenue	High
Transition: Reputational	Perception of not having responded appropriately to climate challenges; greenwashing or perceived neglect of fiduciary focus	S M L	• Decreased revenues • Decreased security valuations	Industry dependent, for example: • Financial services – high • IT – low	Assessed through horizon scanning, engagement and thorough due diligence, particularly on corporate governance	S	• Lower AUM • Decreased revenue	High
Physical: Acute & chronic	The impact on physical operations from extreme weather events or changes in temperature	L	• Increased capital expenditure • Increased insurance costs • Increased damage and disruption costs • Decreased security valuations	Industry dependent, for example: • Agriculture – high • Financial services – low	Assessed through the physical risk model	L	• Lower AUM • Decreased revenue	Medium

1. Relative impact of the risk to investee companies.
2. Resulting impact to Schroders as an investment manager.

The investments we manage
continued

Climate opportunities

Time frame: S Short term 0-5 years; M Medium term >5-10 years; L Long term 10+ years

Opportunity	Description	Time frame	Impact	Portfolio management approach
Resource efficiency	Investing in companies becoming more energy efficient	S	Increased revenue	CONTEXT framework Enables the assessment of multiple technological trends, such as carbon intensity of the energy mix and CDP performance band
Energy source	Investing in companies supporting the energy transition	M	Increased revenue	CONTEXT framework and SustainEx™ Enables the assessment of multiple environmental trends, such as the shift of capital from fossil fuel to clean energy
Products and services	Investing in companies able to provide products in response to climate opportunities	M	Increased revenue	CONTEXT framework Enables the assessment of multiple customer trends, such as investee product alignment with customer values, customer preference for product types, and preferred marketing and comms channels
Market	Adapting investment proposition to reflect client preferences	M	Better competitive position and increased revenue	Annual client investor surveys Questionnaire assessing our clients' views on key product themes and trends likely to influence their investment decisions
Resilience	Providing products to manage the impacts of climate change	S	Increased revenue	CONTEXT framework Enables the assessment of multiple environmental trends, such as more volatile resource prices, upward trends in extraction costs, and impact of emerging economies' resource demand

Figure 8: Risk rating and descriptive representation of risks (Schroders plc, 2022, p.26-27).

Anticipated financial impacts [NZ CS 1 paragraph 15(b)]

NZ CS 1 | NZ CS 2 | NZ CS 3

This disclosure supports primary users' capital allocation decisions, based on risk appetite. Investors' differing requirements in relation to anticipated risk and return need to be catered for by providing financial impact information which is as relevant, accurate, and verifiable as can be practically achieved.

The **TCFD** has some useful tables of examples of climate-related risks and opportunities, and potential (anticipated) financial impacts (see further guidance below).

Alongside the analysis of different climate-related scenarios, the TCFD suggests an MIS Manager draw on its metrics, targets, and transition planning in attempting to gauge anticipated financial impacts.

An MIS Manager is required to disclose quantitative information unless it is unable to do so, in which case it must describe the anticipated financial impact in qualitative terms. It is important to note that quantitative and qualitative information are not mutually exclusive. If an MIS Manager can quantify the anticipated financial impacts, understanding the context (in a qualitative sense) is relevant and material information – in which case that quantitative information should be disclosed together with the qualitative information, and not instead of it.

Where anticipated financial impact information is provided quantitatively, an MIS Manager should consider using range estimates to communicate the estimation uncertainty of potential outcomes. If the outcome is relatively certain and unambiguous, a single value may be more appropriate than a range.

Identifying anticipated financial impacts should build on the work identifying the anticipated impacts disclosed under paragraph 15(a). An MIS Manager should use caution when using past data in forward-looking analysis due to the novel nature of climate change.

The TCFD considers the factors affecting an MIS Manager's financial impacts from climate change to include:

- the MIS Manager's exposure to, and anticipated effects of, specific climate-related risks and opportunities
- the planned responses to manage its risks or seize opportunities
- the implications of the planned responses on its income statement, cash flow statement, and balance sheet.

The MIS Manager should disclose the anticipated financial impacts of its climate-related risks and opportunities on its fund if no action is undertaken. For example, assuming current sector allocations remain the same.

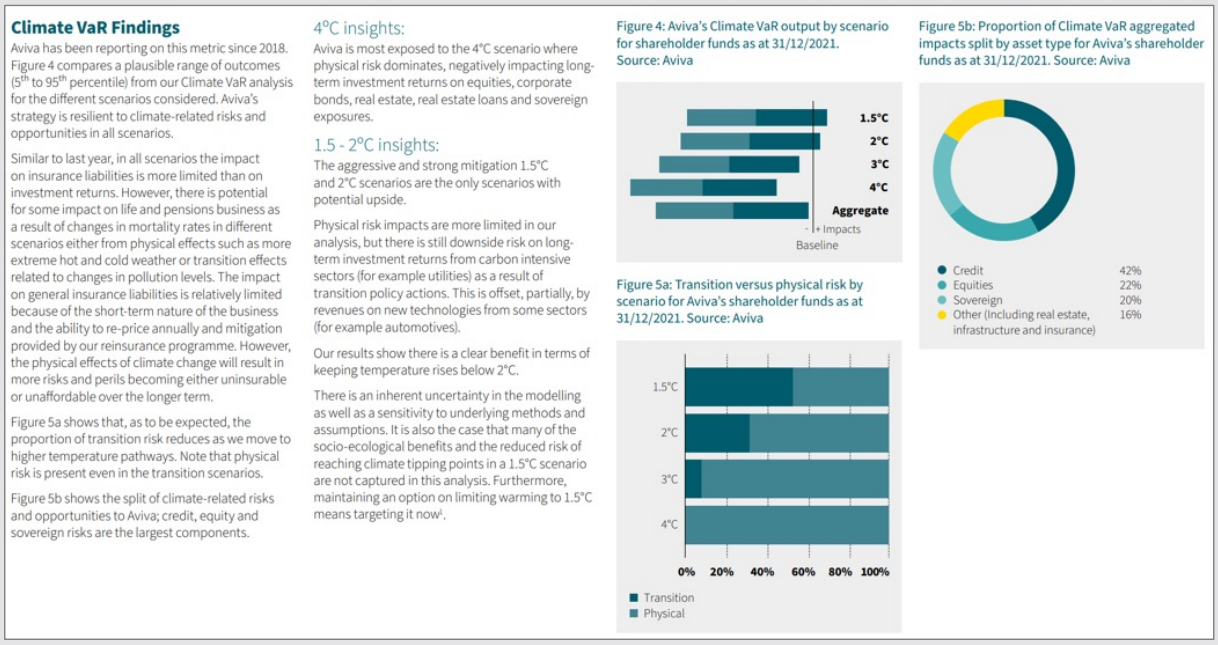
Managers may nevertheless explore different routes to provide estimates or ranges of potential financial impact, drawing on the examples and guidance provided by the TCFD (see Table 2 below), and the approaches described by HK SFC.

Table 2: The anticipated financial impacts of climate-related risks and opportunities on financial performance and position (adapted from TCFD, 2021, pp.49-51.)

Anticipated financial impacts of climate-related risks and opportunities relevant to MIS Managers (in respect of the funds they manage)
Changes to the value of financial assets due to exposure to physical and transition risks.
Changes to the expected portfolio value given climate-related risks and opportunities.
Changes in liability and equity due to increases or decreases in asset values (e.g. due to low-carbon capital investments or to sale or write-offs of stranded assets).

Example voluntary disclosures

This example from Aviva illustrates the financial impacts of climate-related risk on its investments via reference to Climate Value-at-Risk (VaR), and other metrics, such as Weighted Average Carbon Intensity (WACI) and weather-related losses, to gauge the potential future impacts of climate on investments (Figure 9).



Climate VaR Findings

Aviva has been reporting on this metric since 2018. Figure 4 compares a plausible range of outcomes (5th to 95th percentile) from our Climate VaR analysis for the different scenarios considered. Aviva's strategy is resilient to climate-related risks and opportunities in all scenarios.

Similar to last year, in all scenarios the impact on insurance liabilities is more limited than on investment returns. However, there is potential for some impact on life and pensions business as a result of changes in mortality rates in different scenarios either from physical effects such as more extreme hot and cold weather or transition effects related to changes in pollution levels. The impact on general insurance liabilities is relatively limited because of the short-term nature of the business and the ability to re-price annually and mitigation provided by our reinsurance programme. However, the physical effects of climate change will result in more risks and perils becoming either uninsurable or unaffordable over the longer term.

Figure 5a shows that, as to be expected, the proportion of transition risk reduces as we move to higher temperature pathways. Note that physical risk is present even in the transition scenarios.

Figure 5b shows the split of climate-related risks and opportunities to Aviva; credit, equity and sovereign risks are the largest components.

4°C insights:

Aviva is most exposed to the 4°C scenario where physical risk dominates, negatively impacting long-term investment returns on equities, corporate bonds, real estate, real estate loans and sovereign exposures.

1.5 - 2°C insights:

The aggressive and strong mitigation 1.5°C and 2°C scenarios are the only scenarios with potential upside.

Physical risk impacts are more limited in our analysis, but there is still downside risk on long-term investment returns from carbon intensive sectors (for example utilities) as a result of transition policy actions. This is offset, partially, by revenues on new technologies from some sectors (for example automotives).

Our results show there is a clear benefit in terms of keeping temperature rises below 2°C.

There is an inherent uncertainty in the modelling as well as a sensitivity to underlying methods and assumptions. It is also the case that many of the socio-ecological benefits and the reduced risk of reaching climate tipping points in a 1.5°C scenario are not captured in this analysis. Furthermore, maintaining an option on limiting warming to 1.5°C means targeting it now[1].

Figure 4: Aviva's Climate VaR output by scenario for shareholder funds as at 31/12/2021. Source: Aviva

Figure 5a: Transition versus physical risk by scenario for Aviva's shareholder funds as at 31/12/2021. Source: Aviva

Figure 5b: Proportion of Climate VaR aggregated impacts split by asset type for Aviva's shareholder funds as at 31/12/2021. Source: Aviva

Figure 9: The Climate VaR impacts of different physical and transition scenarios on Aviva's investments (Aviva, 2021, p.25, with further information on relevant metrics provided on p.56).

This disclosure from BNY Mellon illustrates the potential financial impacts of climate-related risks and opportunities as percentage changes in equity values under alternate scenarios of climate-induced stress (Figure 10).

		Change in equity value for sections of investment portfolio		
		Scenario A Transition/Physical	**Scenario B Transition/Physical**	**Scenario C Transition/Physical**
Extraction	Gas/Coal/Oil	-45%	-40%/-5%	NA/-20%
Generation	Gas/Coal/Oil	-65%	-55%/-5%	NA/-20%
Transport	Automotive/ Marine/ Aviation	-30%/NA	-18%/-5%	NA/-10%
Energy Intensive	First order processing of chemicals, cement, iron etc.	-35%/NA	-25%/-10%	NA/-20%
Agriculture	Agriculture, forestry, fishing etc.	-65%/-5%	-50%/-10%	NA/-20%
Real Estate	Change in property value	-20%/NA	NA/-30%	NA/-60%
Sovereigns & Municipal Bonds	Credit Rating downgrades	-20bp	-30bp	-20bp

Figure 10: BNY Mellon followed Bank of England Prudential Regulation Authority guidance to assess the financial impacts of climate-related risks and opportunities on equity values in investment portfolios (BNY Mellon, 2021, p.18).

Over time, quantitative analysis of potential financial impacts on the part of MIS Managers will likely become the norm, as the quality and breadth of data disclosed by their investees improves.

In the narrative accompanying disclosure 15(b), the MIS Manager may wish to cross-reference actions set out in transition plan disclosure 16(b) or other information, explaining the extent to which it believes its planned actions may reduce anticipated financial impacts, were they to be successfully implemented and effective.

Fair presentation
[NZ CS 3 paragraphs 6-9]

NZ CS 1 | NZ CS 2 | **NZ CS 3**

Disclosing the financial impact **after** the effect of transition planning is not a required disclosure. If an MIS Manager believes this information is material to its primary user, this should be disclosed separately to the disclosure of anticipated financial impacts. Presenting the information separately is important so that it does not present a misleading view of the anticipated financial impacts, should the transition planning not be actioned or achieved. Disclosing impacts after the effect of transition planning could also encourage overconfidence in the degree to financial impacts arising due to climate-related risks and opportunities can be avoided through transition planning. Some financial impacts may be unavoidable due to the impacts of climate change, or they may be largely dependent on the actions of others.

Adoption provision 2
[NZ CS 2]

NZ CS 1 | **NZ CS 2** | NZ CS 3

An MIS Manager may choose to apply adoption provision 2 providing an exemption from this requirement in its first reporting period.

Methods and uncertainty
[NZ CS 3 paragraphs 47-50]

NZ CS 2 | **NZ CS 3**

MIS Managers also need to read NZ CS 3 paragraphs 47-49, which require the disclosure of significant assumptions and sources of estimation uncertainty.

It is important to note the limitations imposed by the uncertainty of forward-looking projections of change. These limitations mean that primary users could likely seek transparency on how anticipated financial impacts have been calculated. Any significant assumptions, and other sources of estimation uncertainty, should be made clear.

Further guidance on anticipated financial impacts

TCFD, 2021. Guidance on Metrics, Targets, and Transition Plans, pp.46-52. This section provides additional guidance for entities to assess and disclose the financial impacts of climate-related risks and opportunities.

TCFD, 2021. Implementing the Recommendations of the TCFD, Tables A1.1 and A1.2 (pp.75-76. These provide examples and potential financial impacts related to the specific categories of climate-related risks and opportunities. Please note that the sub-category risks and examples described under each major category are not mutually exclusive, and some overlap exists. Table A1.3 (pp.77-78) provides additional examples of how entities could be affected by climate-related financial impacts.

Anticipated financial impacts – time horizons [NZ CS 1 paragraph 15(c)]

NZ CS 1 NZ CS 2 NZ CS 3

Investors globally are seeking a deeper understanding of the financial impacts of climate-related risks and opportunities. There is a growing desire among primary users to understand, at least in broad terms, when financial impacts might reasonably be anticipated to affect their investment.

Different funds are likely to have different investment horizons, and therefore different risks and opportunities. For example, a fund focused on infrastructure or less liquid private equity may have a different view on time horizons, and therefore risks, than a fund invested in short-term fixed income. Similarly, a pension fund may take a different view given the needs of its investors (depending on proximity to retirement) to take a longer-term view.

To begin with, an MIS Manager may opt to estimate the time horizon (and perhaps the scale) of financial impacts it anticipates encountering in categorical rather than precise terms. For instance, the MIS Manager may choose to group risks and opportunities into broad categories of short, medium, and long term in year 1 (Table 3 shows an example), refining the precision of these descriptions to a greater degree as possible thereafter. MIS managers might determine it necessarily to consider different investment horizons for different funds, and how this may affect risks, opportunities and disclosures linked to funds. For example, a fund focused on infrastructure or less liquid private equity may have a different view on time horizons and therefore risks, than a fund invested in short-term fixed income. Similarly, a pension fund may take a longer-term view given the needs of its investors (depending on proximity to retirement).

Illustrative example of method of disclosure)

An MIS Manager has identified five risks and three opportunities in relation to the fund with anticipated financial impacts. It opts to provide categorical variable estimations of when each risk and opportunity might arise, and with what scale of financial impact.

Table 3: Anticipated financial impacts on the fund

Scale of anticipated financial impacts	Time horizon		
	Short term (x-x years)	**Medium term (x-x years)**	**Long term (x-x years)**
Small ($x to $x)	Transition Risk 1; Transition Risk 2	Physical Risk 1	Physical Opportunity 1; Physical Opportunity 2
Moderate ($x to $x)	Transition Opportunity 1	Physical Risk 2	Transition Opportunity 4; Physical Risk 3
Large ($x to $x)	Transition Risk 3; Transition Opportunity 2	Transition Opportunity 3	Physical Risk 4

Adoption provision 2
[NZ CS 2]

NZ CS 1 | **NZ CS 2** | NZ CS 3

An MIS Manager may choose to apply adoption provision 2 providing an exemption from this requirement in NZ CS 1 paragraph 15(b), it is also excluded from this requirement in its first reporting period.

Further guidance on time horizons

TCFD, 2021. Implementing the Recommendations of the TCFD, pp.11, 17.

TCFD, 2021. TCFD Guidance on Metrics, Targets, and Transition Plans, pp.46-52.

Anticipated financial impacts > unable to quantify
[NZ CS 1 paragraph 15(d)]

NZ CS 1 | NZ CS 2 | NZ CS 3

An MIS Manager should provide a brief description of the process it has followed in attempting to quantify the financial effects of the anticipated climate-related impacts on the fund. Explaining what was considered, why its quantification is challenging, and how these challenges might be overcome in future may assist primary users in evaluating these disclosures.

Adoption provision 2
[NZ CS 2]

NZ CS 1 | **NZ CS 2** | NZ CS 3

An MIS Manager may choose to apply adoption provision 2 providing an exemption from this requirement in NZ CS 1 paragraph 15(b), it is also excluded from this requirement in its first reporting period.

8.7. Strategic position
[NZ CS 1 paragraph 11(e)]

NZ CS 1 | NZ CS 2 | NZ CS 3

This disclosure provides an opportunity for an MIS Manager to communicate to primary users any changes to its business model and investment strategy to help ensure its fund meets any targets it has set and/or to reduce climate risk. How well the MIS Manager communicates its intentions may influence who primary users choose to invest with.

The MIS Manager should describe how it will position its fund (first and foremost at the level of investment strategy) to thrive in a world that is attempting to rapidly reduce its emissions and adapt to the consequences of climate change. Primary users will likely seek reassurance that an MIS Manager has a strategic view on how to enhance the climate **resilience** of the funds under its management.

Under NZ CS 1, a 'transition plan' is defined as "…an aspect of an entity's overall strategy that describes an entity's targets, including any interim targets, and actions for its transition towards a low-emissions, climate-resilient state". Note that this definition broadens the scope of what a transition plan should cover. This disclosure should be specific to the fund and what is material for its primary users.

Climate-related metrics are useful to monitoring the effectiveness of transition planning aspects of an MIS Manager's strategy [NZ CS 1 paragraphs 21(a) to (c)].

This disclosure requires an MIS Manager to describe how it will position the fund for a low-emissions, climate-resilient future. Sub-disclosures in paragraphs 16(a) to 16(c) form the basis of disclosure 11(e).

A transition plan is an aspect of an entity's overall strategy that describes an entity's targets, including any interim targets, and actions for its transition towards a low-emissions, climate-resilient future.

Further guidance on transition planning

Some of these sources do not include adaptation within the scope of transition planning. An MIS Manager should keep this in mind when using these sources.

CA100+, 2022. Climate Action 100+ Net Zero Company Benchmark v1.1, pp.1-6.

UN, 2022. United Nations High Level Expert Group on the Net Zero emissions commitments of non- state entities – Integrity matters: Net zero commitments by businesses, financial institutions, cities and regions.

TCFD, 2021. Guidance on Metrics, Targets, and Transition Plans, pp.39-44.

IGCC, 2022. Corporate climate transition plans: a guide to investor expectations, pp.6-16.

GFANZ, 2022. Recommendations and Guidance: Financial Institution Net-zero Transition Plans, pp.19-101.

The Investor Agenda, ICAP expectations ladder 2023, ICAPs Expectations Ladder.

EEIST, 2023. Net-zero transition planning for pension funds and other asset owners

Strategic position > business model [NZ CS 1 paragraph 16(a)]

NZ CS 1 | NZ CS 2 | NZ CS 3

Primary users want to understand in general, high-level terms what the MIS Manager's business model and investment strategy is. This puts into context disclosures which illustrate changes to the business model and strategy.

The disclosure should be a brief description that summarises the business model and strategy as concisely as possible. This may include a simple diagram of the business model and a short paragraph describing the key components of its strategy.

The disclosures focus on the business model and strategy of the MIS Manager in respect of the fund as some business models of fund management are inherently challenged in their ability to gain useful insight on climate risk (for example, if you are a passive manager with a reliance on third party providers). It is a risk to assume that all fund managers have a high degree of knowledge of climate risk. This knowledge is a result of investment in implementing new risk management and decision-making tools, as well as internal capability building or the procurement of new experts, is a risk.

The design and operation of business models rely on the MIS Manager's capabilities and are interdependent with strategy. Strategy guides business model design and is partly shaped by it. StudiousGuy provides an example conceptualisation of a business model for an asset manager. An associated operating model conceptualisation is provided by bankinghub.

A business model describes how the MIS Manager creates and delivers value for the fund. It includes the flows of costs, revenues, and profits. The design and operation of business models rely on the MIS Manager's capabilities and are interdependent with strategy. Strategy guides business model design and is partly shaped by it. This is relevant to the performance of the fund itself.

A strategy describes how the MIS Manager will compete in its relevant market(s). An MIS Manager should ask how it creates or delivers value to those procuring its services in relation to a given fund. This includes its awareness and management of climate-related risks and opportunities on behalf of the investor. Things to think about when making this disclosure in relation to a fund include the following:

- How the MIS Manager intends to create and maintain its advantage?
- What choices is the MIS Manager making about what to do and how to do?
- Has it adopted a passive or active investment approach?
- What targets or aspirations are held?
- What segments of the retail investor market have been targeted?

Further guidance on business model and strategy

Studiousguy. Asset Management Companies Business Model.

Bankinghub, 2022. Operating models in asset management – ensuring future readiness, Figure 2.

David Teece, 2018. Business models and dynamic capabilities, section on Business models in the dynamic capabilities framework.

Michael Mankins and Mark Gottfredson, 2022. Strategy-making in turbulent times.

Strategic position > transition planning [NZ CS 1 paragraph 16(b)]

NZ CS 1 | NZ CS 2 | NZ CS 3

This disclosure is about transition planning for the low-emissions, climate-resilient future.

Primary users of this disclosure will therefore seek to understand how a fund's statements in regard to the transition toward a low-emissions, climate-resilient future state are consistent with the fund's business model and strategy, and that its stated aspirations are backed up by concrete actions.

This disclosure also provides primary users with information about the options available in response to the climate-related risks and opportunities identified. Primary users may be looking for information indicating flexibility in the face of uncertain future change, represented by the strategy and business model options that the MIS Manager may pursue.

Transition plans

A transition plan is an aspect of an MIS Manager's strategy that sets out how the MIS Manager will position the fund as the global and domestic economy transitions towards a low-emissions, climate resilient state.

The development of transition plans is a rapidly evolving field. Examples of asset managers engaging in transition planning are beginning to emerge, and investment-oriented transition guidance is becoming mainstream. New insights are informing new standards, expectations, benchmarks, and guidance from groups such as the **TCFD**, the International Sustainability Standards Board (**ISSB**), UK Transition Plan Taskforce (TPT), Glasgow Financial Alliance for Net Zero (GFANZ), Climate Action 100+, Investor Group on Climate Change (IGCC), and in New Zealand, the Climate Leaders Coalition (CLC).

The most relevant guidance for MIS Managers is that developed by GFANZ in relation to financial institutions, which contains examples of asset manager transition plans and actions specific to MIS Managers. MIS Managers can also refer to the IGCC's recently updated Investment Climate Action Plans Guidance and the Net Zero Asset Managers' Initiative Commitment for further illustrations of how asset managers globally are engaging with the subject of transition planning.

The focus of NZ CS is important to bear in mind, however, as some of these guidance documents do not refer to core business model and strategy changes and, in our view, are not strongly connected into the existing processes of investment strategy development for MIS Managers. The MIS Manager should ensure that its own business model and strategy changes are considered as part of transition planning, as opposed to purely relying on actions that are focused on the presence of transition plans by investee companies, while retaining the same business model and strategy.

Transition planning could include other actions such as the engagement and exercise of voting rights, collaboration with interest groups or activist investor initiatives, setting positive or negative screening policies, developing new performance measurement metrics, impact investment policies to assist currently high emitters with their own transitions, and broader policy advocacy for policies relevant to the transition to a low-emissions, climate-resilient economy. It may (depending on the MIS Manager's choices and judgements) go beyond portfolio reallocation.

Adoption provision 3
[NZ CS 2]

NZ CS 1 | **NZ CS 2** | NZ CS 3

An MIS Manager may choose to apply adoption provision 3 providing an exemption from this requirement in its first reporting period. However, if it elects to use the adoption provision, it must instead provide a description of its progress.

Strategic position > alignment
[NZ CS 1 paragraph 16(c)]

NZ CS 1 | NZ CS 2 | NZ CS 3

Primary users may want information that illustrates the extent to which an MIS Manager's statements regarding transition planning are backed by clear linkages to capital deployment and funding decision-making processes.

Given ongoing concerns regarding greenwashing in the corporate and financial sectors, an MIS Manager that is unable to demonstrate alignment between its transition planning and its core strategy and planning in relation to a fund, may risk having its transition plan statements disregarded by primary users.

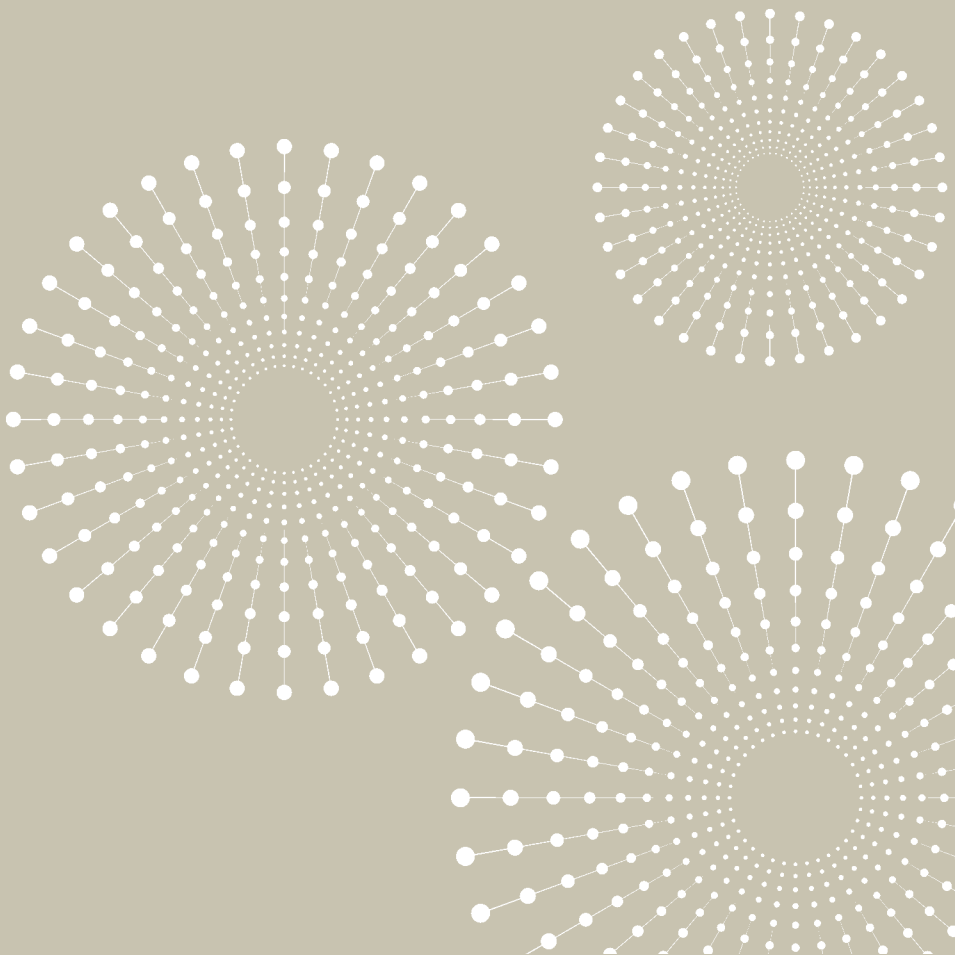
An MIS Manager should disclose what linkages, if any, exist between its transition plans and its core investment decision-making processes. Any information supporting commitments in relation to investment decisions and investment allocation should be made explicit. For an MIS Manager, provided such changes are being made, this would include the extent to which the manager's transition plan is aligned with its investment decisions and investment allocation. For example, a portfolio alignment strategy where (over a period of time) a fund invests in companies that are considered to be aligned with a 1.5 degree temperature outcome pathway, the target is a percentage of companies that meet this by a certain date.

Adoption provision 3
[NZ CS 2]

NZ CS 1 | NZ CS 2 | NZ CS 3

An MIS Manager may choose to apply adoption provision 3 providing an exemption from this requirement in its first reporting period. However, if it elects to use the adoption provision, it must instead provide a description of its progress.

Risk Management



9. Risk Management

Risk Management disclosures made by an MIS Manager in respect of its fund will differ from the risk management processes (and disclosures) made by corporate entities. The latter typically have Enterprise Risk Management frameworks within which climate-related risks are expected to be integrated. An MIS Manager will probably need to approach the identification, assessment, and management of climate-related risks within its fund, integrating this process with the identification, assessment, and management of other material investment risks.

The Monetary Authority of Singapore (2020, p.8) recommends that asset managers incorporate these types of risk management processes as a mainstream, ongoing aspect of investment management:

> *"Asset managers should put in place appropriate processes and systems to monitor, assess and manage the potential and actual impact of environmental risk on individual investments and portfolios on an ongoing basis, where material. Should there be developments (such as occurrences of natural disasters and changes in regulations) that could materially affect the operations and financials of an investee company, an asset manager should re-assess the risk and return profile of the investment or portfolio. This would allow the asset manager to make an informed decision on whether to continue with the investment, make adjustments to the composition of the portfolio, or put in place other mitigating measures to better manage the environmental risk in the investment or portfolio. The asset manager should also escalate these material environmental risk exposures and exceptions in accordance with its internal escalation process to ensure appropriate and timely actions are taken to address the risk."*

The **TCFD** and **CFRF** also point out that there are useful crossovers between some of the tools and methods which are used in support of strategy disclosures and those that contribute to the identification and analysis of climate-related risk. Adopting a coherent, integrated approach to their use is therefore advisable and may streamline the resourcing and cost involved in preparing disclosures.

Each MIS Manager will have different challenges to overcome in moving toward risk management processes capable of accommodating climate-related risks. The CFRF observe that "a common approach is to perform a materiality assessment and initially focus on a small set of risks with scope and sophistication increasing over time" (CFRF 2020, p.3).

Table 4: The CFRF sets out six core steps to address climate-related risks (adapted from CRFR 2020, p.3).

Step	Key Actions
1. Establish risk governance	Establish Board (or highest-level governance body) oversight Delegate roles within senior management
2. Determine risk appetite	Consider business strategy in relation to type of risks faced, and establish first pass assessment of climate risk appetite Engage with Board to probe findings Develop a qualitative risk statement, and establish clear climate-related risk metrics to communicate risk appetite
3. Find and use data/tools	Explore internal data sources Assess external data providers Develop non-traditional data and tool familiarity, via academia, impact modelling, tools for management under uncertainty
4. Assess risks	Assess physical and transition climate-related risks affecting the entity via direct and indirect channels Account for potential impacts via economy and financial system
5. Integrate under ERM framework	Integrate climate risk within ERM, either as a standalone risk, cross-cutting risk, or combination of both Develop a risk taxonomy/categorisation
6. Training and culture	Why – Relate risk to strategy Who – Ensure roles are appropriately distributed across entity What – Horizon scanning, monitoring, training, and development across entity

Before reading further, preparers should engage with the TCFD's primary guidance resources on Risk Management. These provide readers with an awareness of the unique characteristics of climate-related risks, an introduction to the various tools and approaches available to help identify and assess climate-related risks, and insight into what is involved in integrating those risks within broader risk management frameworks. The following guidance either explicitly refers to this material, or will be more readily understood if preparers have a prior understanding of this TCFD material.

Further guidance on risk management

CFRF, 2020. Climate Financial Risk Forum Guide – Risk Management Chapter, p.3.

TCFD, 2020. Guidance on risk management integration and disclosure, pp.1-46.

MAS, 2020. Guidelines on environmental risk management (asset managers), p.8.

UNEP-FI, 2021. The Climate Risk Landscape: A comprehensive overview of climate risk assessment methodologies.

COSO/WBCSD, 2018. Enterprise Risk Management: Applying enterprise risk management to environmental, social and governance-related risks, pp.49-51.

9.1. Risk disclosure objective
[NZ CS 1 paragraph 17]

NZ CS 1 NZ CS 2 NZ CS 3

The objective of the risk management disclosures is to enable primary users to understand how a fund's climate-related risks are identified, assessed, and managed, and how those processes are integrated in existing risk management processes.

9.2. Identifying and assessing risks
[NZ CS 1 paragraph 18(a)]

NZ CS 1 NZ CS 2 NZ CS 3

For an MIS Manager, the climate-related risks referred to in this disclosure effectively relate to its existing and potential investees. Primary users may want to understand how the MIS Manager goes about identifying, assessing, and managing the levels of climate-related risks within its fund.

The risks identified as part of this process are disclosed under paragraph 11(c). Metrics can be incorporated into the processes for identifying, assessing, and managing climate-related risks [NZ CS 1 paragraphs 21(a) to (c)]. These disclosures may be related to those on governance.

An MIS Manager may consider disclosing how it assesses the following types of risks:

- At the entity level (i.e. existing and potential investees). This may include 'trigger events' that warrant a re-evaluation of inclusion within a portfolio.
- Market and asset-class risks.
- Risks linked to portfolio diversity/correlation.
- Manager-level governance and risk management processes, and use of data tools.
- Processes of engagement with investee entities to identify, assess and manage risks.
- Processes for assessing the capabilities of subcontracted managers. For example, in the case of the use of pass-through funds where an MIS Manager reinvests in other funds managed elsewhere.

This disclosure requires an entity to describe its processes for identifying, assessing, and managing climate-related risks. Sub-disclosures in paragraphs 19(a) to 19(e) form the basis of disclosure 18(a).

Identifying and assessing risks > tools and methods
[NZ CS 1 paragraph 19(a)]

NZ CS 1 NZ CS 2 NZ CS 3

Primary users may view the tools and methods an MIS Manager has used as a contributing factor in their evaluation of whether climate-related risks have been identified and assessed robustly. Subsequent risk management disclosures will illustrate, for primary users, how comprehensively a given tool or method has been applied by an MIS Manager.

The **CFRF** provides guidance on financial market risk identification, assessment, and monitoring in its 2020 Risk Management chapter (pp.34-35).

Key points to note include the CFRF's statement that "climate risks can be relevant to a variety of sectors and can directly impact equity values, credit spreads, commodities, interest rates, foreign exchange, bond prices and all other associated market parameters" (p.34).

The CFRF also draws attention to the assessment and monitoring of climate-related risks on assets and markets via reference to metrics. An MIS Manager should account for the limitations of metrics such as Scope 3 emissions, portfolio carbon intensity, or climate 'value at risk' (VaR). Data underpinning their analysis are typically scarce and will likely remain so until climate-related disclosures have been in place for time to provide a solid baseline. Note that, these metrics are 'proxies' based on limited and uncertain data, and they are often backwards looking, giving a limited window on the true level of risk that the asset or market is exposed to.

The CFRF also provides a database of climate risk data providers tools and methodologies, while the United Nations Environment Program Finance Initiative (UNEP FI) provided a comprehensive guide to climate-related financial risk assessment methodologies in 2021, followed up by a supplement offering implementation case study insights in 2022.

The **TCFD** also provides a more broadly scoped overview of risk identification and assessment tools (adapted in Table 5 below). These can provide MIS Managers with an understanding of the range of tools and methods on offer to address the uniquely challenging characteristics of climate-related risks.

Table 5: An overview of tools and methods of climate risk identification, analysis, and response (adapted from TCFD 2020, p.43-44). Scenario analysis is often highlighted as a key risk identification tool and is a useful means of encouraging structured exploratory thinking on how risks might emerge, evolve, and intersect. Where data are limited and uncertainty unavoidable, scenario analysis may be one of the only tools available to help entities think through the implications of risk in a structured manner.

Tools/methods	Description	Application	Risk process:		
			Identify	Assess	Respond
Scenario Analysis	A process for identifying and assessing potential implications of a range of plausible future states under conditions of uncertainty	Explore and develop an understanding of how climate related risks and opportunities might plausibly impact an entity over time	✓	✓	✓
Stakeholder Engagement	A means of obtaining input for decision making from those parties who may be affected by the decision or have knowledge that may inform the decision	Seek insight from a range of stakeholders within and outside a company (e.g. management executives, suppliers), who can provide feedback on changing conditions and potential impacts associated with climate-related risks	✓	✓	
Delphi Method	Structured communication method for eliciting information and opinions from experts	Conduct interviews or collect expert input from business leaders, actuaries, insurers, meteorologists, oceanographers, climate, and atmospheric scientists	✓	✓	

Economic Scenario Generator	Models that simulate possible future states of economies and financial markets based on risk factors to identify unexpected but plausible outcomes	Test valuation models under a broad range of possible economic and financial conditions (e.g. considering climate change and socioeconomic factors)	✓	✓	
Forecasting	An approach for predicting the impact of a future event based on past and present data	Use historical data and lookback studies to understand previous climate-related impacts to inform estimates of potential future impacts, changing key parameters (e.g. frequency, duration, intensity) within plausible ranges	✓		
Hazard Maps	Location-level information on the extent or severity of perils using assumptions on the frequency, severity, and location parameters of primary events and dependencies with secondary perils	Present peril event scenarios based on current and potential future states considering the impact from climate change, which will result in different frequency and severity of events affecting certain locations	✓	✓	
Probabilistic Modelling	*General models*. Systems modelling involving probabilistic inputs, processes, and outputs	Numerical weather and climate predictions that allow a representation of uncertainties, a reduction of systematic biases, and improved representation of long-term climate variability	✓		
	Catastrophe models. Probabilistic models based on deep understanding of the physical parameters that define a natural hazard (e.g. wind speeds) and characteristics of the exposures (e.g. location)	Estimate potential losses from natural catastrophes	✓	✓	✓
Sensitivity Analysis	Statistical analysis that examines the change in a desired output relative to a change in input parameters	Analyse a company's sensitivity to changing climate-related conditions (e.g. carbon or commodity prices or demand)	✓		
Simulation	Use of models to imitate a situation many times to estimate the likelihood of various possible outcomes (e.g. Monte Carlo method)	Assess the likelihood or propensity of different climate-related scenario pathways accommodating multiple variables and parameters	✓		
Horizon Scanning	Systematic and proactive approach to risk identification based on available information	Identifying various climate-related risk types across different spatial and temporal scales	✓		

Further guidance on tools and methods

TCFD, 2020. Guidance on risk management integration and disclosure, p.5, 12-17, 43-45.

UNEP FI, 2021. United Nations Environment Program Finance Initiative (UNEP-FI) provided The Climate Risk Landscape: A comprehensive overview of climate risk assessment methodologies in 2021, followed up by a supplement offering implementation case study insights in 2022.

CFRF 2020. The Climate Financial Risk Forum (CFRF) provided a database of climate risk data providers tools and methodologies in a downloadable Excel spreadsheet.

Identifying and assessing risks > time horizons [NZ CS 1 paragraph 19(b)]

NZ CS 1 | NZ CS 2 | NZ CS 3

Primary users are likely to be seeking insight on how the complex, frequently long-term risks of climate change are integrated within an MIS Manager's wider risk management frameworks. Climate-related risks that manifest over timescales exceeding business-as-usual risk management processes (i.e. beyond 5 to 10 years) may be of particular concern for primary users, unless an MIS Manager can illustrate how longer-term factors will inform risk-reduction decisions taken in the short to medium term.

An MIS Manager will already have nominated the time horizons it views as appropriate for the analysis of climate-related risks (and opportunities) for the fund under disclosure 14(a). An MIS Manager should consider using the same time horizons for these analyses, as continuity between the timeframes nominated in disclosures 14(a) and 18(b) will better integrate risk and strategic investment processes.

Further guidance on time horizons

TCFD, 2020. Guidance on risk management integration and disclosure, p.12.

Identifying and assessing risks > value chain [NZ CS 1 paragraph 19(c)]

NZ CS 1 | NZ CS 2 | NZ CS 3

'Value chain' considerations for an MIS Manager's primary users relate to those of the fund's investees. There is likely to be primary user interest in exploring the higher-level value chain implications for sectors (for instance, utilities, mining, transport). While the information on climaterelated risks that investees in an MIS Manager's value chain can offer may initially be limited, several index providers are already moving to fill this data gap, which is likely to get smaller as investees begin their own disclosure processes.

An MIS Manager should disclose the extent to which value chain considerations in relation to the fund enter its climaterelated risk identification and assessment processes.

Further guidance on risks in the value chain

HK SFC, 2021. Appendix 2: Sample industry practices for managing climate-related risks, pp.6-7.

MAS, 2020. Guidelines on environmental risk management (asset managers), pp.8-9.

Identifying and assessing risks > frequency
[N CS 1 paragraph 19(d)]

NZ CS 1 NZ CS 2 NZ CS 3

The TCFD describes processes for the integration of climate-related risk in entity risk management processes as needing to be iterative. This means the processes require review and revision at regular intervals to maintain relevance and currency. Primary users may want to know how an MIS Manager has interpreted this in the context of its risk management processes in relation to the fund.

An MIS Manager should disclose how frequently its climate-related risk assessment process is undertaken.

Further guidance on the frequency

TCFD, 2020. Guidance on risk management integration and disclosure, pp.8-12.

Identifying and assessing risks > priority
[NZ CS 1 paragraph 19(e)]

NZ CS 1 NZ CS 2 NZ CS 3

Primary users are likely to look for insight into an MIS Manager's prioritisation of climate-related risks relative to other risks. There are likely to be some sectors and entities in the economy that face greater climate-related risk **exposure** than others, and primary users will likely want to see climate-related risk prioritisation differentiated accordingly.

An MIS Manager should disclose the method or approach(es) it takes to prioritising climate-related risks relative to other types of risks for its fund.

Further guidance on prioritisation

TCFD, 2020. Guidance on risk management integration and disclosure, p.7.

9.3. Integration into overall risk management [NZ CS 1 paragraph 18(b)]

NZ CS 1 | NZ CS 2 | NZ CS 3

An MIS Manager should describe how climate-related risk identification, assessment and management is integrated within these existing processes and practices.

Example voluntary disclosure

An example of the integration of climate-related risks in investment risk management is the approach taken by AllianceBernstein (2020, p.4):

"Climate risks and opportunities can have a sizable impact on performance, so we focus intently on integrating them into our research and investing process. Our fundamental analysts and economists assess climate risk for equity and debt issuers, reviewing climate strategy, potential environmental liabilities, GHG emissions, and the political and regulatory backdrop. If aspects of an issuer's past, current or expected climate-related risks or behaviours are material to its future expected returns, analysts incorporate them into research reviews, short-, medium- and long-term forecasts of risks and opportunities, and ultimately, investment decisions. AB's portfolio managers ensure that climate risks and opportunities are appropriately assessed in the context of their specific investment strategies, some of which focus on identifying issuers with innovative products and services that will make a positive impact in adapting to, and mitigating, climate change."

The types of investment processes that primary users may be interested in seeing climate-related risk identification, assessment and management integrated into include:

- sector/asset class/company level/jurisdictional/asset selection and analysis
- investment manager (if outsourced) selection/review
- investment performance monitoring
- investment strategy development/review
- investment policy development/review
- SIPO setting/review.

In completing disclosure 18(b), an entity should describe how climate-related risk identification, assessment, and management are integrated within its existing processes and practices. Metrics can be incorporated into this process [NZ CS 1 paragraphs 21(a) to (c)].

Further guidance on integration into overall risk management

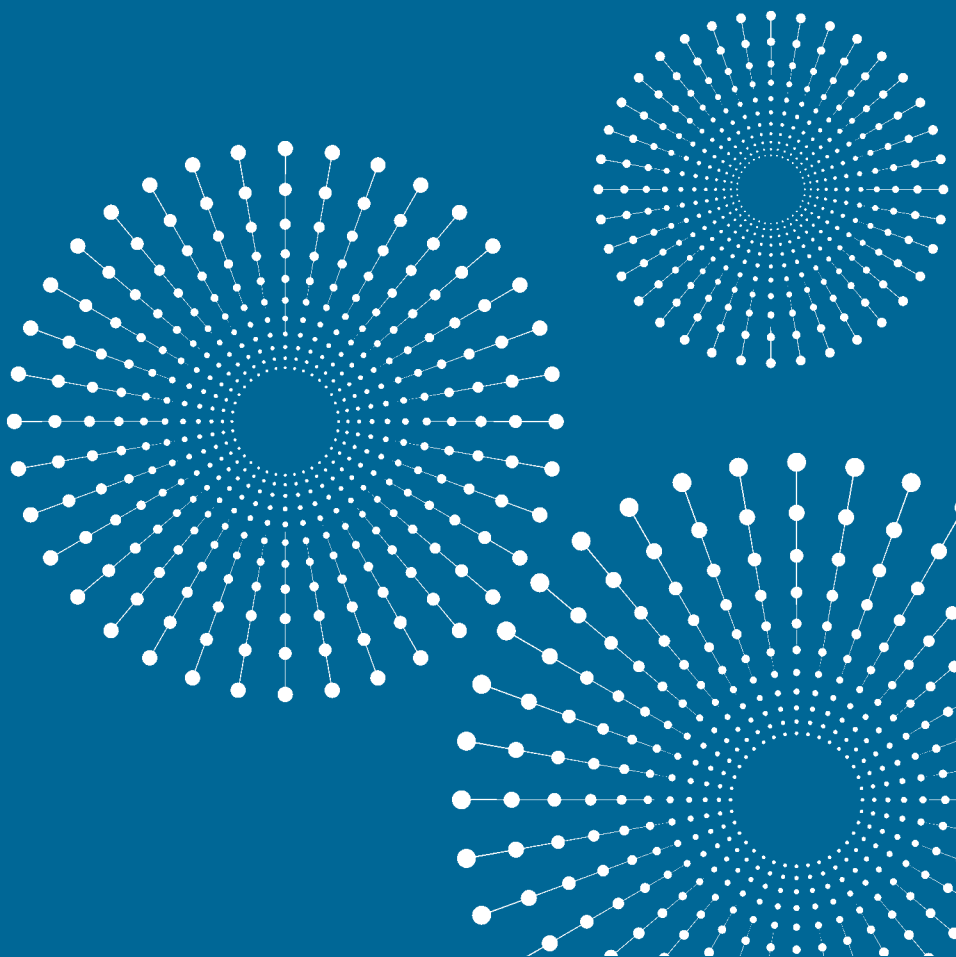
TCFD, 2020. Guidance on risk management integration and disclosure, pp.7, 15-16, 38.

AlllianceBernstein, 2020. AB's Climate Change/TCFD Statement, p.4.

COSC/WBCSD, 2018. Enterprise Risk Management: Applying enterprise risk management to environmental, social and governance-related risks, pp.47-66.

CFRF, 2020. Climate Financial Risk Forum Guide – Risk Management Chapter, pp.8-9.

Metrics & Targets



10. Metrics and Targets

Metrics should inform, and be informed by, the fund's governance, strategy and risk management processes. Metrics enable the creation of a feedback loop over time, in the same way that other key performance and risk indicators may feed into the investment management processes.

An MIS Manager may choose to disclose metrics within other disclosures where relevant. They do not need to be presented as a separate section.

Governance interrelationships

Climate-related metrics enable a fund's governance body and management to direct investments more effectively by measuring and describing the impacts of climate-related risks and opportunities on the fund [NZ CS 1 paragraphs 7(b) and 7(c)]. Metrics are also useful for informing primary users about how the governance body tracks and manages climate-related risks and opportunities for the fund [NZ CS 1 paragraph 8(d)].

Strategy interrelationships

Climate-related metrics are vital for measuring and describing the impact of climate-related risks and opportunities on a fund. These include current climate-related impacts [NZ CS 1 paragraph 11(a)] and the description of how the fund will be positioned as the global and domestic economy transitions towards a low-emissions, climate-resilient future state [NZ CS 1 paragraph 11(e)]. Metrics also help to monitor the effectiveness of the implementation of the transition plan aspects of strategy in relation to a fund [NZ CS 1 paragraph 16(b)].

Risk management interrelationships

Climate-related metrics support the measurement of risk **exposures** and levels as part of an MIS Manager's broader fund-related risk management processes. Metrics can be incorporated into the processes for identifying, assessing, and managing climate-related risks [NZ CS 1 paragraph 18(a)] and how these are incorporated into the fund's overall risk management processes [NZ CS 1 paragraph 18(b)].

Metrics in the context of climate-related risks and opportunities

Metrics should be:

- relevant
- accurate and verifiable
- comparable and consistent.

It is helpful to disclose metrics consistently from year to year to facilitate comparative and trend analysis, and to clearly identify the time horizon over which climate-related metrics are measured. Metrics are most effective when the same item is reported across all time periods, as shown in Figure 11.

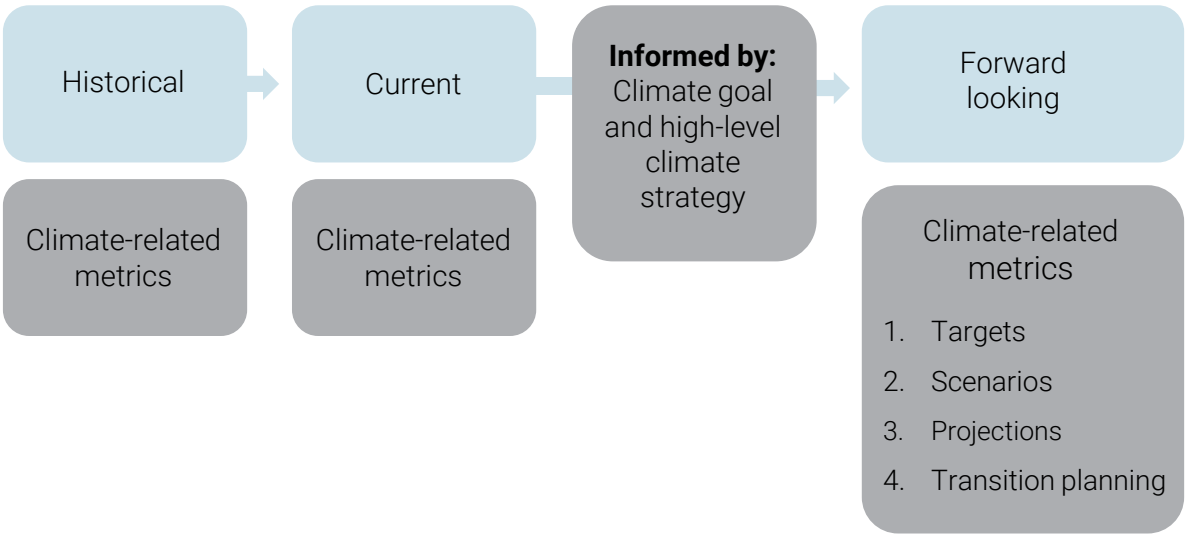


Figure 11: Time horizons for climate-related metrics (adapted from TCFD Metrics and Targets Guidance 2021, p.12).

Fair presentation
[NZ CS 3 paragraphs 6-9]

NZ CS 1 NZ CS 2 **NZ CS 3**

There are challenges with applying many metrics to portfolios with underlying investments, including across sectors, geographies, asset classes. An MIS Manager needs to be aware of these challenges when considering the metrics relevant to its fund. The most relevant factors should be disclosed where they affect fair presentation.

For example, WACI metrics are not applicable to/available for some fixed income assets, so coverage for funds with significant fixed income components may be limited.

Comparatives
[NZ CS 3 paragraphs 40-46]

NZ CS 1 NZ CS 2 **NZ CS 3**

An MIS Manager must disclose two years of comparative data from the immediately preceding reporting periods for the fund, and an analysis of the main trends for each metric disclosed. Refer to NZ CS 3 for further details on when these requirements may not apply.

Fundamentally, an MIS Manager will need to understand the performance of the fund, and compare this against the targets. An MIS manager should indicate the causes of year-to-year movements in metrics at a fund level. For example, a change in a metric could be due to:

- a change in the metric, measurement technique (for example, emissions factor), or source data protocol
- a change in the entities, or the entities' relative weight within the portfolio due to an active decision by the manager (which may itself be due to a change in investment screening, approach to risk, investment objectives or similar policies)
- passive portfolio rebalancing (for example, driven by changes in the relative market capitalisation of constituent entities, the size of the fund, or a short-term increase in cash/liquids as a result of a portfolio entity being taken private)

- underlying changes in the carbon/environmental performance of the portfolio entities themselves.

Splitting these impacts, especially the degree to which changes in metrics are due to portfolio rebalancing versus actual improvements in entity performance, may add value for primary users. In all cases, a materiality lens would apply.

Adoption provisions 6 and 7
[NZ CS 2]

NZ CS 1 | **NZ CS 2** | NZ CS 3

An MIS Manager may choose to apply adoption provisions 6 and 7 providing exemptions from reporting two years of comparatives in its first reporting period, and one year of comparatives in its second reporting period and an analysis of trends.

Methods and uncertainty
[NZ CS 3 paragraphs 47-54]

NZ CS 1 | NZ CS 2 | **NZ CS 3**

NZ CS 3 requires disclosure of material methods, assumptions, and uncertainties associated with the metric. This information may be presented along with the metric, or separately, so long as primary users are directed to this information. The primary user should be able to understand the methods or calculations used for the metric.

An MIS Manager should also consider the following when making methods and uncertainty disclosures:

- The use of different measurement/estimation techniques across diversified portfolios, such as emissions factors.
- Data gaps, when information is required at a fund level.
- Averaging across sectors or international markets for some metrics.
- The reliance on external data providers and portfolio entities, with consequent challenges with completeness and consistency.

An MIS Manager should be transparent about whether a metric is a snapshot (for example, as at 30 June), based on average weightings, or is calculated via another method. NZ CS does not prescribe how to calculate metrics. Keeping in mind the principle of fair presentation, the MIS Manager can choose the most appropriate method for each metric disclosed. It is recommended that the MIS Manager keeps records of the calculation methods and disclose the most material information for its primary user in relation to these methods.

10.1. Metrics and Targets disclosure objective [NZ CS 1 paragraph 20]

NZ CS 1 NZ CS 2 NZ CS 3

The objective of the Metrics and Targets disclosures is to enable primary users to understand how an MIS Manager measures and manages its climate-related risks and opportunities in relation to a fund. Metrics and targets also provide a basis upon which primary users can compare entities within a sector or industry.

10.2. Metric categories [NZ CS 1 paragraph 21(a)]

NZ CS 1 NZ CS 2 NZ CS 3

The metric categories are presumed to be relevant for all entities. However, for an MIS Managerreporting at fund level this may not always be the case. If an MIS Manager decides any of the metric categories are not relevant at a fund level, (see 'relevance' principle in Table 1 of NZ CS 3) and therefore will not provide material information to primary users, the MIS Manager need not disclose a metric for that category (see paragraph 31 of NZ CS 3).

For example, an MIS Manager may decide the internal emissions price category is not relevant at a fund level and will not provide material information to its primary users. In this case, an MIS Manager would document this decision for internal record keeping purposes.

For all metric categories, an MIS Manager should consider using a metric which is commonly used in the sector, rather than developing its own metrics (refer to the industry-based metrics section later in this document for sources of industry-based metrics).

These metrics can be presented as point estimates or ranges. Some are best presented in figures or tables.

This disclosure requires an MIS Manager to disclose metrics for each of the categories set out in paragraphs 22(a) to 22(h) in relation to the fund, where material to the primary user.

Metric category > GHG emissions [NZ CS 1 paragraph 22(a)]

NZ CS 1 NZ CS 2 NZ CS 3

This disclosure provides primary users with information to understand where a fund has the greatest exposure to, and therefore greatest risk from, GHG emissions in its value chain. Gross GHG emissions must be reported in tonnes of carbon dioxide equivalent, abbreviated as tCO_2e.

An MIS Manager reporting in respect of a fund is unlikely to have Scope 1 and 2 emissions arising from the fund (as activities causing these emissions are unlikely to be carried out by the fund). This assumes that either the operational or financial control approach is used to consolidate emissions (as required by Partnership for Carbon Accounting Financials (PCAF) Standard Part A – Financed emissions, pp.39, 123). If there are no Scope 1 or 2 emissions, or no material Scope 1 or 2 emissions, then the MIS Manager may consider reporting this fact (PCAF Standard, p.18-19 provides an overview of Scopes).

NZ CS requires disclosure of value chain emissions, so Scope 3 emissions of investments must be included where data allows (subject to materiality). An MIS Manager must also

consider the full value chain of the fund when considering Scope 3 emissions sources, and report any sources of emissions which may be material to the primary user in relation to that fund. GHG Protocol Corporate Value Chain (Scope 3) Standard may be useful when identifying emissions from other parts of the value chain, if material.

Scope 3 financed emissions are likely to represent the largest source of emissions for a fund, and will therefore present the most significant opportunities to influence GHG reductions and achieve a variety of GHG-related objectives. An MIS Manager assessing and disclosing the GHG emissions associated with investment activities should refer to the **PCAF** Standard Part A – Financed Emissions.

While this guidance discusses the PCAF standard, an MIS Manager may choose to use other measurement standards or methods that are more relevant for the investments of the fund. There are requirements to disclose the standard and methodologies used, and any base year restatements [NZ CS 1 paragraph 24(a)] and [NZ CS 3 paragraphs 52-54].

An MIS Manager is encouraged to review reporting requirements for the PCAF standards for guidance as to what might be required for internal record-keeping and assurance purposes.

This disclosure requires an MIS Manager to disclose its GHG emissions in relation to a fund. Subdisclosures in paragraphs 24(a) to 24(c) form the basis of disclosure 22(a). A GHG inventory report is not required to be disclosed.

GHG measurement standards

PCAF, 2022. The Global GHG Accounting and Reporting Standard for the Financial Industry.

GHG Protocol. Corporate Value Chain (Scope 3) Standard.

Fair presentation
[NZ CS 3 paragraphs 6-9]

NZ CS 1 NZ CS 2 **NZ CS 3**

Assurance of GHG emissions disclosure is required for periods that end on or after 27 October 2024. An MIS Manager must be transparent about which GHG emissions disclosures have been assured.

If comparatives have not been assured but the current year disclosures have, this should be clarified. For transparency, an entity may choose to include the label ‘not assured’ alongside any comparatives that have not been assured, see Table 6.

Illustrative example disclosure

Table 6: illustrative example disclosure showing assurance in FY26 and not in FY25 and FY24.

Emissions (tCO_2e)	FY26	FY25	FY24
	Assured (Limited)	Not assured	Not assured
Scope 1 (if material)	XX	XX	XX
Scope 2 (if material)	XX	XX	XX
Scope 3 (total)	XX	XX	XX
Scope 3 category 15 (Scope 1, 2 & 3 of fund)			

An MIS Manager is not required to disaggregate gases (for example, CO_2, CH_4, N_2O) for GHG emissions under NZ CS 1. However, an MIS Manager should consider whether the disaggregation by constituent gases (such as identifying methane emissions for an entity in the agriculture sector) for a fund would provide material information to primary users. If so, an MIS Manager must disclose this information.

An MIS Manager is not required to report removals occurring in, or offsets applied to, the fund in the current reporting period. However, if an MIS Manager considers this is material information for its primary user, it must disclose this information.

Adoption provisions 4, 5, 6 and 7 [NZ CS 2]

NZ CS 1 | **NZ CS 2** | NZ CS 3

An MIS Manager may choose to apply adoption provision 4 providing an exemption from reporting Scope 3 GHG emissions in its first reporting period. However, the XRB Board strongly encourages MIS Managers to start measuring Scope 3 GHG emissions immediately. Beginning the measurement process will put the MIS Manager in a good position to disclose these emissions as part of its second year of reporting. As discussed above, for most funds Scope 3 financed GHG emissions are where the most significant emissions risks and opportunities lie. Obtaining a clear picture of the scale and scope of these emissions sources will assist the MIS Manager to understand the climate-related risks and opportunities related to the fund, and assist it with transition planning.

If an MIS Manager chooses to apply adoption provision 4 in its first reporting period, it may apply adoption provision 5 in its second and third reporting periods.

An MIS Manager may choose to apply adoption provisions 6 and 7 providing an exemption from reporting two years of comparatives in its first reporting period, and one year of comparatives in its second reporting period and an analysis of trends.

Methods and uncertainty
[NZ CS 3 paragraphs 47-54]

NZ CS 1 NZ CS 2 **NZ CS 3**

An MIS Manager must disclose the methods, assumptions, and estimation uncertainty associated with its GHG emissions disclosures for the fund. See NZ CS 3 paragraphs 52-54 for additional GHG emissions disclosure requirements.

A materiality lens applies to all disclosures.

An MIS Manager calculating financed emissions using the **PCAF** standard should consider making all the data and data quality disclosures required or recommended by the PCAF standard. The PCAF standard also requires that disclosures are as at a fixed point in time, and the MIS Manager reporting on the fund should disclose this.

There are likely to be challenges associated with obtaining accurate, consistent and complete data from underlying investments. Disclosures should reflect this.

An MIS Manager may consider disclosing the time period associated with specific data sources if this is considered material. For example, the most recent information available from the World Bank may be from the 2018/2019 year.

An MIS Manager is not required to disaggregate GHG emissions from investments into Scope 1, 2 or 3 for investee companies, but if an MIS Manager considers this is material information for its primary users it should report this in line with PCAF standards.

An MIS Manager must also provide an explanation of any base year GHG emission restatements in relation to the fund.

PCAF disclosures on data and data quality

PCAF, The Global GHG Accounting and Reporting Standard – Part A Financed Emissions, p.128.

Metric category > GHG emissions > standards used
[N CS 1 paragraph 24(a)]

NZ CS 1 NZ CS 2 NZ CS 3

Primary users want to know which standard (or standards) have been used to calculate GHG emissions. This should be a concise statement identifying the standard(s) used.

Example illustrative disclosure

The GHG emissions associated with this fund were calculated using the PCAF (2022) Global GHG Accounting and Reporting Standard Part A: Financed Emissions. Second edition.

Metric category > GHG emissions > consolidation approach [NZ CS 1 paragraph 24(b)]

NZ CS 1 | NZ CS 2 | NZ CS 3

Both the GHG Protocol and ISO have three consolidation approaches. These are equity share, financial control, and operational control. Preparers must identify which consolidation approach was used to calculate GHG emissions for the fund.

The PCAF standard requires financial institutions using its standards to use the operational control or the financial control consolidation approach.

Example illustrative disclosure

In accordance with the PCAF standard, this fund adopted the financial control consolidation approach.

Metric category > GHG emissions > emission factors and global warming potential [NZ CS 1 paragraph 24(c)]

NZ CS 1 | NZ CS 2 | NZ CS 3

An MIS Manager must disclose the source or sources of emission factors and the global warming potential (GWP) rates used where this information is material to the primary user.

GWPs are values that allow direct comparison of the impact of different GHGs in the atmosphere by comparing how much energy one tonne of a particular GHG will absorb compared to one tonne of carbon dioxide. The IPCC updates these values periodically to take into account improved scientific understanding of the physical properties of GHGs. The latest values are defined in the IPCC Sixth Assessment Report (AR6).

Differences in sources of emission factors or GWP can materially alter GHG emissions estimations.

GWP_{100} is the most used emissions factor for international reporting. However, if primary users' decisions are driven by the assessment of shorter-term impact (for example, in an agriculture intensive portfolio), it could consider also providing GHG emissions impact over a shorter time (for example, using GWP_{30}).

Metric category > GHG emissions > exclusions [N CS 1 paragraph 24(d)]

NZ CS 1 | NZ CS 2 | NZ CS 3

An MIS Manager must be transparent about which asset classes, investments or other emission sources have been excluded from the GHG emissions disclosures in relation to its fund. It must justify any exclusions. It should consider providing an indication of the relative size of any exclusions.

An MIS Manager must also be transparent about data coverage, including methods and assumptions [NZ CS 3 paragraphs 43-54].

Example illustrative disclosure

Asset class A was excluded from GHG emission calculations for this fund. This asset class represents 15% of total Assets Under Management.

Metric category > emissions intensity
[NZ CS 1 paragraph 22(b)]

NZ CS 1 | NZ CS 2 | NZ CS 3

Disclosing GHG emissions intensity information can provide a useful point of comparison or benchmark for primary users between different managed investment funds.

Examples of intensity metrics

- Weighted average carbon intensity (WACI)
- Physical emission intensity
- Economic emissions intensity

Comparatives
[NZ CS 3 paragraphs 40-46]

NZ CS 1 | NZ CS 2 | NZ CS 3

When disclosing the analysis of the main trends of a GHG intensity metric, an MIS manager should be transparent about when a change in the intensity metric for a fund is due to emission reductions, portfolio composition, or a change in the denominator.

For example, when discussing a reduction in tCO_2e per $ invested, a shift in the exchange rate could reduce the tCO_2e per $ invested, however, it would be misleading to claim this was an emission reduction.

Measures such as WACI are typically based on historic revenue. So, for example, an infrastructure project delivering environmental benefit may have a high WACI during construction that drops significantly over the much longer asset life. The MIS Manager could consider reporting contextual factors like this if known.

Further guidance on emissions intensity metrics

PCAF, The Global GHG Accounting and Reporting Standard – Part A Financed Emissions, p.127.

TCFD, 2021. Implementing the Recommendations of the TCFD – Weighted average carbon intensity, p.52.

ISSB, 2023. IFRS S2 Climate-related Disclosures contains some industry-specific metrics for financed emissions. Asset management paragraph B61, and commercial banking paragraph B62. To access ISSB standards it is necessary to register on the IFRS Foundation website

Metric category > transition risks
[N CS 1 paragraph 22(c)]

NZ CS 1 NZ CS 2 NZ CS 3

Disclosure of the amount or extent of a fund's assets vulnerable to climate-related transition risks allows primary users to better understand anticipated financial **vulnerability**. This may include issues such as the effects on the value of assets and liabilities, and changes in demand for products or services.

Investments can be vulnerable to several types of climate-related transition risks, including:

- policy, regulation, and legal risks reflecting changes in policy and litigation action
- technology risk, as emerging technologies impact the competitiveness of certain organisations
- market risk from changes to supply and demand
- reputational risks tied to changing customer or community perceptions.

Example metrics

- Exposure to carbon-related assets
- Percent of investments in fossil fuel sector
- Weighted amount of investments in high-risk sectors
- Share of non-renewable energy consumption and production
- Financed Scope 3 GHG emissions by product
- Weighted average emissions intensity of each product compared to the benchmark
- Proportion of product reporting against disclosure good practice (for example, **TCFD**, Sustainability Standards Accounting Board, **CDSB**)

An MIS Manager may disclose metrics by asset class within the fund if this supports fair presentation [NZ CS 3 paragraphs 6-9].

Where a fund tracks an index, or otherwise has limited visibility of the degree of vulnerability to transition risk present, this should be made explicit to primary users, with some explanation of what steps (if any) the MIS Manager has taken to understand the fund's vulnerability to transition risk.

Further guidance or sources of metrics for transition risk

CFRF, 2020. Climate Financial Risk Forum Guide 2020 disclosures chapter, pp.24-26.

ASCOR Project. Investor framework and database to assess the climate action and alignment of sovereigns. This may be useful for an MIS Manager with a fund invested in sovereign bonds.

TCFD, 2021. Implementing the Recommendations of the Task Force on Climate-related Financial Disclosures, p.54 exposure to carbon-related assets.

UNFCC database GHG total without LULUCF by country may be useful for sovereign bonds.

University of Notre Dame. Notre Dame Global Adaptation Initiative Country Index may also help identify transition risks for sovereign bonds.

Metric category > physical risks
[N CS 1 paragraph 22(d)]

NZ CS 1 | NZ CS 2 | NZ CS 3

Disclosure of the amount or extent of a fund's assets vulnerable to material climate-related physical risks allows users to better understand any anticipated financial **vulnerability**. This may include issues such as impairment or stranding of assets, effects on the value of assets and liabilities, and the cost of business interruptions.

When considering the types of climate-related physical risks that an MIS Manager's investments might be vulnerable to, an MIS Manager must consider both:

- acute risks, such as storms, floods, and wildfires, which are event-driven
- chronic risks, such as higher temperatures and rising sea levels, which refer to longer-term shifts in climate patterns.

In determining vulnerability to physical risks within its fund, MIS Managers should consider their climate-related **hazards** and **exposures** to those hazards. Refer to risk fundamentals guidance in **section 8.1.**

Physical risks will be specific to the geography where the assets or activities are located, and their likely exposure or vulnerability to the risk. For example, certain assets or activities may be most vulnerable to acute risks from storms or wildfires, while others are more at risk from chronic changes in average temperature, sea-level rise, or drought.

This may link to disclosures in relation to anticipated impacts [NZ CS 1 paragraph 15].

Example metric

- Asset value at risk

Where an MIS Manager tracks an index, or otherwise has limited visibility of the degree of vulnerability to physical risk present within their funds, this should be made explicit to primary users, with some explanation of what steps (if any) the MIS Manager has taken to understand their fund's vulnerability to physical risk. The MIS Manager may also wish to be transparent about its control (or otherwise) for stock selection.

An MIS Manager may disclose metrics by asset class within the fund if this supports fair presentation [NZ CS 3 paragraphs 6-9].

An MIS Manager is reminded that it must disclose methods and uncertainties related to this metric [NZ CS 3 paragraphs 47-54].

Further guidance or sources of metrics for physical risk

UNFCC database GHG total without LULUCF by country may be useful for sovereign bonds.

Germanwatch, Climate Change Performance Index can provide country-level information.

Bündnis Entwicklung Hilft, 2022. World Risk Report 2022.

Metric category > opportunities

NZ CS 1 | NZ CS 2 | NZ CS 3

[NCS 1 paragraph 22(e)]

Disclosure of the proportion of assets under management aligned with climate-related opportunities provides insight into the position of an MIS Manager's fund relative to others in their industry. It also allows users to understand likely transition pathways and anticipated changes in revenue and profitability over time.

An MIS Manager may disclose metrics by asset class within the fund if this supports fair presentation [NZ CS 3 paragraphs 6-9].

An MIS Manager is reminded that it must disclose methods and uncertainties related to this metric [NZ CS 3 paragraphs 47-54].

Example metrics

- EU taxonomy eligible and aligned revenue towards climate mitigation and climate adaptation (Articles 10 and 11 EU Taxonomy)
- Financed scope 3 GHG emissions by product or asset class
- Weighted average emissions intensity of each product compared to the benchmark
- Proportion of product reporting against disclosure good practice (for example, **TCFD**, Sustainability Accounting Standards Board, **CDSB**)

Metric category > capital deployment

NZ CS 1 | NZ CS 2 | NZ CS 3

[NZ CS 1 paragraph 22(f)]

Deployment of capital in low-emissions businesses may demonstrate that an MIS Manager is investing to make its fund resilient to transition risk or to capture climate-related opportunities.

An MIS Manager might disclose how, for example, portfolio selection and screening policies affect capital deployment in investee assets, the levels of capital deployed in impact investments, alignment of portfolio with Paris agreement, clean technologies or, conversely, high-emitting activities.

It can be helpful to present traditional disclosures alongside climate-related disclosures to allow users to understand the scale of investment in different types of activities – for example, investments in green bonds versus investments in vanilla bonds.

Example metrics

- Percentage of AUM invested in low-emissions companies or sectors
- The quantity deployed and the % of AUM/investment in green bonds, sustainable bonds, and social bonds vs vanilla bonds

Metric category > Internal emissions price [NCS 1 paragraph 22(g)]

NZ CS 1 | NZ CS 2 | NZ CS 3

Internal emissions pricing is a mechanism by which entities put a value on a unit of tCO_2e. This price varies depending on the individual entity's circumstances and objectives.

The disclosure of internal emissions prices can help primary users to identify which entities have business models that are vulnerable to future policy responses to climate change, and which are adapting their business models to ensure **resilience** to transition risks. Internal emissions prices also provide primary users with an understanding of the reasonableness of an entity's climaterelated risk and opportunity assessment and strategy resilience.

An MIS Manager may consider providing some context if an internal emissions price is used for decision-making. For instance, if an emissions price is used to determine investment choices this may be material information to primary users. An internal emissions price may also be used as a metric when testing asset class allocation for scenario analysis.

If an MIS Manager decides the internal emissions price metric is not relevant at a fund level, and therefore will not provide material information to its primary users, this metric would not need to be disclosed. An MIS Manager should document this decision for internal record keeping and regulatory purposes.

Metric category > remuneration [NZ CS 1 paragraph 22(h)]

NZ CS 1 | NZ CS 2 | NZ CS 3

This disclosure provides information to primary users regarding how management is incentivised to achieve climate-related KPIs. Incentivising management to meet climate-related targets and policies is a means of fostering ownership of performance, and disclosing such arrangements is a means of communicating that commitment to primary users. 'Management' is a defined term [NZ CS 1 Appendix A].

The ways in which MIS Managers link management compensation to performance on climaterelated issues (if links exist) will be specific to them and their governance structure. Some may choose to report the percentage of the executive's pay linked to climate considerations, while others might discuss weighting factors or the total amount of compensation that could be impacted.

An MIS Manager should disclose the link between targets and remuneration policies (if any).

Example metrics

- Portion of employee's annual discretionary bonus linked to investments in climate-related products
- Weighting of climate targets on long-term incentive scorecards
- Calculation of performance fees with delegated managers contingent on climate-related performance

Further guidance on remuneration metrics

TCFD, 2021. Guidance on Metrics, Targets and Transition Plans, pp.25, 63.

10.3. Industry-based metrics

NZ CS 1 | NZ CS 2 | NZ CS 3

[NZ CS 1 paragraph 21(b)]

An MIS Manager should report on the industry-based metrics it uses for management purposes for its fund. Using common metrics within an industry increases comparability across entities for primary users.

NZ CS does not prescribe how to calculate metrics. Keeping in mind the principle of fair presentation, the MIS Manager can choose the most appropriate method for each metric disclosed. It is recommended that the MIS Manager keep records of the calculation methods and discloses the most material information for its primary user in relation to these methods.

An MIS Manager should consider, where possible, using an industry-based metric for metric categories in disclosures 22 (b), (c), (d), (e), and (f).

Example metrics

- Portfolio alignment
- Proxy voting and investee engagement policies and procedures
- Exclusion compliance confirmations
- Screening policies

Further guidance on industry-specific metrics

To access **ISSB** standards it is necessary to register on the IFRS Foundation website.

ISSB, 2023. IFRS S2 Climate-related Disclosures. Contains some industry-specific metrics for financed emissions. Asset management paragraph B61, and commercial banking paragraph B62.

ISSB, 2023. IFRS S2 Industry-based Guidance on implementing Climate-related Disclosures – Volume 15—Asset Management & Custody Activities

ISSB, 2023. IFRS S2 Industry-based Guidance on implementing Climate-related Disclosures – Volume 16 - Commercial Banks

ISSB, 2023. IFRS S2 Industry-based Guidance on implementing Climate-related Disclosures – Volume 18—Investment Banking & Brokerage.

TCFD, 2021. Sector-specific metrics suggested by the TCFD: Implementing the Recommendations of the Task Force on Climate-related Financial Disclosures, pp.24-68.

GFANZ, 2022. Measuring Portfolio Alignment: Driving enhancement, convergence, adoption.

CFRF, 2021. Climate Financial Risk Forum Guide 2021 Climate Data and Metrics.

GRI: The Global Reporting Initiative is continuing to develop sector standards, which may contain useful sector-specific metrics.

10.4. Other key performance indicators [NZ CS 1 paragraph 21(c)]

NZ CS 1 | NZ CS 2 | NZ CS 3

This disclosure informs primary users of any additional metrics and KPIs that an MIS Manager is using to manage climate-related risks and opportunities for the fund.

If an MIS Manager is using KPIs to measure and manage climate-related risks and opportunities for the fund which are not cross-industry or industry-based metrics, these should be disclosed.

10.5. Targets [NZ CS 1 paragraph 21(d)]

NZ CS 1 | NZ CS 2 | NZ CS 3

Disclosure of targets provides a forward-looking orientation that is essential for primary users to assess the potential for strategies to succeed, and to give them a basis against which to assess future performance. Descriptive progress reporting is important, but so are the metrics used to measure this progress.

A climate-related target refers to a specific level, threshold, quantity, or qualitative goal that the MIS Manager wishes to meet over a defined time horizon to address the climate-related risks and opportunities of the fund. Climate-related targets should inform, and be informed by, strategy, transition planning and risk management, and be linked to climate-related metrics.

An MIS Manager should consider targets (for the fund) such as those related to GHG emissions, in line with the cross-industry, climate-related metric categories, where relevant, and in line with anticipated regulatory requirements or market constraints, or other targets.

NZ CS does not require an MIS Manager to set targets.

Targets should be:

- aligned with an entity's strategy and risk management goals
- linked to relevant metrics
- quantified and measurable
- clearly specified over time
- understandable and contextualised
- periodically reviewed and updated
- reported annually.

Illustrative examples of targets

- Reduce percentage of asset value exposed to acute and chronic physical climate-related risks by 50% by 2050
- Reduce percentage of asset value exposed to transition risks by 30% by 2030, relative to a 2019 baseline
- Reduce GHG emissions intensity of portfolio by 30% by 2035 relative to a 2020 baseline
- Direct 5% of listed equity portfolio to EU tax-aligned article 10 and 100 by 2030

This disclosure requires an MIS Manager to describe the targets that are used to manage climaterelated risks and opportunities in relation to a fund. Sub-disclosures in paragraphs 23(a) to 23(e) form the basis of disclosure 20(d).

NZ CS 1 NZ CS 2 **NZ CS 3**

Principles
[NZ CS 3 paragraphs 10-13]

An MIS Manager must keep the principles in mind when reporting on progress against targets. It is important to be transparent about progress and when this may be attributable to factors other than improved climate performance.

NZ CS 1 NZ CS 2 **NZ CS 3**

Methods and uncertainty
[NZ CS 3 paragraphs 47-54]

Disclosures of targets should be supported by contextual, narrative information on items such as scope, underlying data, and assumptions, including those around the use of offsets.

For GHG emissions targets, an MIS Manager should be clear about the scope of the target. For example:

- whether the target includes all Scope 1, 2, and 3 emissions for investments, or only a selected subset
- whether the target is for tCO_2e or CO_2 only.

Further guidance on climate-related targets

The Investor Agenda, 2021. Investor Climate Action Plans and Expectations Ladder.

Science Based Targets, 2022. Financial Sector Science-Based Targets Guidance.

United Nations Environment Programme Finance Initiative, 2022. Target Setting Protocol Second Edition.

IIGCC, 2021. Net Zero Investment Framework Implementation Guide.

IIGCC, 2021. Net Zero Investment Framework: Supplementary Guidance on Target Setting.

GFANZ, 2022. Financial Institution Net-zero Transition Plans.

GFANZ, 2022. Measuring Portfolio Alignment.

Net Zero Asset Managers Commitment.

Carbon Risk Real Estate Monitor.

TCFD, Portfolio Alignment Team. Measuring Portfolio Alignment – Technical Considerations.

Targets > timeframes
[NZ CS 1 paragraph 23(a)]

NZ CS 1 NZ CS 2 NZ CS 3

This is the defined time horizon by which targets are intended to be achieved. Short-, medium-, and long-term time horizons should be consistent across a fund's targets and, if feasible, consistent with key dates tracked by key national and international organisations, such as the Intergovernmental Panel on Climate Change or regulators.

Targets > interim targets
[NZ CS 1 paragraph 23(b)]

NZ CS 1 NZ CS 2 NZ CS 3

An interim target is a checkpoint between the current period and the target end date, in which an MIS Manager assesses progress and makes any adjustments to plans and targets.

Any medium- and long-term targets should have interim targets set at appropriate intervals (e.g. 5-10 years), covering the full medium- or long-term target time horizon.

Targets > base year
[NZ CS 1 paragraph 23(c)]

NZ CS 1 NZ CS 2 NZ CS 3

This is a clear definition of the baseline time period against which progress will be tracked. It is preferable to have a consistent base year across GHG emissions targets.

Targets > performance against targets
[NZ CS 1 paragraph 23(d)]

NZ CS 1 NZ CS 2 NZ CS 3

This is a concise description of how a fund is performing against each target. This should include where fund has met/not met its target and the reason. An MIS Manager should be transparent when performance is attributable to something other than better climate performance.

Targets > GHG emissions targets
[NZ CS 1 paragraph 23(e)]

NZ CS 1 NZ CS 2 NZ CS 3

An MIS Manager should prioritise GHG emission reductions over offsetting and compensation practices for its fund.

Targets > GHG emissions targets > absolute or intensity
[NZ CS 1 paragraph 23(e)(i)]

NZ CS 1 NZ CS 2 NZ CS 3

An absolute target is defined by a change in absolute emissions over time – for example, reducing CO_2e emissions by 47% below 2020 levels by 2030. An intensity target is a target defined by a change in the ratio of emissions to a metric over time – for example, reduce CO_2e per tonne of product by 50% from 2020 levels by 2030.

An MIS Manager is encouraged to think carefully when setting an intensity target to ensure that it provides meaningful insights. See **comparatives** section.

Targets > GHG emissions targets > 1.5 degree alignment [N CS 1 paragraph 23(e)(ii)]

NZ CS 1 | NZ CS 2 | NZ CS 3

For each GHG emissions target, an MIS Manager must provide its view as to how the target contributes to limiting global warming to 1.5 degrees Celsius.

Targets > GHG emissions targets > basis for view [NZ CS 1 paragraph 23(e)(iii)]

NZ CS 1 | NZ CS 2 | NZ CS 3

An MIS Manager should describe how it formed its view on the contribution to limiting global warming, and any reliance it has placed on third parties.

For example, an MIS Manager may have formed its view by:

- meeting member requirements of NZAMI, PAII or NZAOA
- having its targets developed by a third party in alignment with 1.5 degrees
- having its targets reviewed by a third party for alignment with 1.5 degrees.

Example illustrative disclosures

Our emissions reduction target is in accordance with the membership requirements of NZAMI.

Our target was developed by a third party in 20XX, based on the PAII guidance at the time.

Targets > GHG emissions targets > offsets [NZ CS 1 paragraph 23(e)(iv)]

NZ CS 1 | NZ CS 2 | NZ CS 3

An MIS Manager should prioritise GHG emission reductions over offsetting and compensation practices.

Where an MIS Manager is relying on the use of offsets to achieve emission-reduction targets for the fund, it must make additional disclosures on the source of these offsets. It may be important for a primary user to know this information to determine whether these offsets are credible.

A fund's reliance on offsets, how the offsets it uses are generated, and the credibility and integrity of the scheme from which the fund obtains the offsets, have implications for a fund over the short, medium and long term. For example, the carbon capture and storage technology may prove ineffective, or changing regulations may discourage or ban the use of specified emissions offsets after abrupt leakages, food shortages, regime changes, or advocacy efforts. Significant uncertainty about future prices for offsets implies additional climate-related (pricing) risks and opportunities.

Further guidance on offsetting claims

MFE, 2022. Interim guidance for voluntary climate change mitigation. Refers to voluntary actions undertaken to reduce or remove GHG emissions outside of an organisation's operations or borders, which otherwise would not have occurred.

11. Coherence with financial statements

One of the principles in NZ CS 3 is coherence. This principle is described as "presenting disclosures in a way that explains the context and relationships with other disclosures of the entity …[C]oherence also requires an entity to present information in a way that allows primary users to relate information about its climate-related risks and opportunities to the entity's financial statements" [NZ CS 3 Table 2].

It is important that climate-related disclosures and information in financial statements provide a complete, coherent, and consistent picture to primary users. Information provided in an MIS Manager's climate-related disclosures for its fund should complement and supplement information provided in the financial statements for its fund.

Information provided in an MIS Manager's climate-related disclosures for its fund will be more useful to primary users if connections are made to the financial statements of its fund – for example, by cross-referencing to notes in financial statements. Information is also more useful to primary users if differences are explained – for example, differences in estimates and assumptions used in producing the financial statements to those used in the climate-related disclosures.

Climate-related matters may affect the fair value measurement of assets and liabilities in the financial statements. For example, market participants' views of potential climate-related legislation could affect the fair value of an asset or liability.

Climate-related matters may also affect disclosures about fair value measurements. Specifically, fair value measurements categorised within Level 3 of the fair value hierarchy use unobservable inputs significant to their measurement. IFRS 13 ***Fair Value Measurement*** requires that unobservable inputs reflect the assumptions that market participants would use when pricing, including assumptions about risk which may include climate-related risk. IFRS 13 requires disclosure of the inputs used in those fair value measurements and, for recurring fair value measurements, a narrative description of the sensitivity of the fair value measurement to changes in unobservable inputs if a change in those inputs might result in a significantly higher or lower fair value measurement.

12. Holistic review

An MIS Manager must fairly present its climate-related disclosure for its fund.

As discussed at the beginning of this document, fair presentation is the overarching principle in NZ CS.

Once an MIS Manager has prepared its climate-related disclosures for its fund in accordance with the principles, disclosure objectives, and disclosure requirements in NZ CS, we would recommend an MIS Manager undertake a holistic review.

In conducting this review, an MIS Manager may wish to consider the following questions:

Do the climate-related disclosures of the MIS Manager's fund meet the fair presentation principles in NZ CS 3?

- Are any additional disclosures needed?
- Are the disclosures specific and relevant to the fund?
- Is the information disclosed able to be verified?
- Can the information be compared to previous reporting periods?
- What about comparisons to targets and baselines, or comparisons to information provided by other similar funds?
- Is the information disclosed free from material error or misstatement?
- Is the information presented in a balanced manner? Are opportunities as well as risks identified? Is the information free from bias?
- Is the presented information complete?
- Is there any information omitted that could cause the information to be false or misleading to the primary users of the fund?
- Is the information consistent to support comparability? If not, has the MIS Manager explained why?
- Has the information been presented in a clear and concise manner? Have any acronyms and terms used in the disclosures been explained?
- Has the information been presented in a coherent manner? Are the linkages between the four thematic areas clear? Are connections to the financial statements of the fund clear?

13. Glossary

CDSB	Climate Disclosure Standards Board: The CDSB was an international consortium of business and environmental NGOs which developed the framework that formed the basis for the TCFD recommendations. CDSB has now been consolidated into the IFRS Foundation, but its guidelines and good practice resources are still relevant and useful.
CFRF	Climate Financial Risk Forum: The CFRF is jointly chaired by the UK Prudential Regulation Authority and Financial Conduct Authority. It aims to advance the UK financial sector's responses to the financial risks from climate change by supporting the development of climate capacity across UK financial regulators and the financial industry.
Exposure	"The presence of people; livelihoods; species or ecosystems; environmental functions, services, and resources; infrastructure; or economic, social, or cultural assets in places and settings that could be adversely affected." IPCC, 2022, p.18
Hazard	"The potential occurrence of a natural or human-induced physical event or trend that may cause loss of life, injury, or other health impacts, as well as damage and loss to property, infrastructure, livelihoods, service provision, ecosystems, and environmental resources." IPCC, 2022, p.22 In the context of climate-related risk, the concept of a 'hazard' may be extended to incorporate transition events or trends with a potential to cause loss or damage to livelihoods, service provision, or the achievement of an entity's strategic aims.
ISSB	International Sustainability Standards Board: Independent standard-setting board governed and overseen by the IFRS Foundation Trustees. The intention of ISSB is to deliver a comprehensive global baseline of sustainability-related disclosure standards that provide investors and other capital market participants with information about companies' sustainability-related risks and opportunities, to help them make informed decisions.
NGFS	Network for Greening the Financial System: A voluntary network of central banks and supervisors which has agreed to develop and share among central banks best practices in environmental and climate risk management.
NZ CS	Aotearoa New Zealand Climate Standards (incorporates all three standards)
NZ CS 1	Aotearoa New Zealand Climate Standard 1 – Climate-related Disclosures
NZ CS 2	Aotearoa New Zealand Climate Standard 2 – Adoption of Aotearoa New Zealand Climate Standards
NZ CS 3	Aotearoa New Zealand Climate Standard 3 – General Requirements for Climate-related Disclosures
PCAF	Partnership for Carbon Accounting Financials: PCAF is a global partnership of financial institutions that work together to develop and implement a harmonised approach to assess and disclose the greenhouse gas (GHG) emissions associated with their loans and investments.
Resilience	"The capacity of interconnected social, economic and ecological systems to cope with a hazardous event, trend or disturbance, responding or reorganising in ways that maintain their essential function, identity and structure. Resilience is a positive attribute when it maintains capacity for adaptation, learning and/or transformation." Arctic Council, 2016, cited in 2022, p.37

TCFD	Taskforce on Climate-related Financial Disclosure: "The Financial Stability Board created the TCFD to develop recommendations on the types of information that companies should disclose to support investors, lenders, and insurance underwriters in appropriately assessing and pricing a specific set of risks – risks related to climate change."
Transition	"The process of changing from one state or condition to another in a given period of time. Transition can occur in individuals, firms, cities, regions and nations, and can be based on incremental or transformative change." IPCC, 2022, p.45. In the context of climate-related risk, transition can refer to the process of reducing emissions and enhancing resilience in the face of uncertain future risk.
Vulnerability	"The propensity or predisposition to be adversely affected. Vulnerability encompasses a variety of concepts and elements including sensitivity or susceptibility to harm and lack of capacity to cope and adapt." IPCC, 2022, p.47

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