

# Staff guidance

## Anticipated financial impacts

Framing internal conversations



July 2025



## Additional resources

The Task Force on Climate-related Financial Disclosures (TCFD's) final recommendations report includes tables showing '[examples of potential financial impacts](#)'—now called 'anticipated financial impacts' (AFIs)—to illustrate this concept. An important takeaway from these tables is the extensive variety of forms AFIs can take.

The TCFD [Guidance on Metrics, Targets, and Transition Plans](#) (2021) also contains relevant information and examples to approach AFIs disclosures. This includes how climate-related metrics and targets, and information from transition plans, can be used as inputs for estimating financial impacts, as well as considerations for disclosing financial performance and position.



## Examples in this guidance

All examples in this guidance are for illustrative purpose only. They are not exhaustive and should not be used as templates for disclosures.

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# 1. Introduction

[Paragraph 15](#) of NZ CS 1 *Climate-related Disclosures* requires an entity to disclose the anticipated financial impacts (AFIs) of climate-related risks and opportunities (R&Os) reasonably expected by the entity and the time horizons over which the AFIs could reasonably be expected to occur. [Adoption provision 2](#) in NZ CS 2 *Adoption of Aotearoa New Zealand Climate Standards* provides an exemption from these disclosures for an entity's first and second reporting periods.

Many entities have taken advantage of the adoption provision. These entities are now having internal conversations on the approach to assess or measure how material physical and transition R&Os may affect an entity's future financial position, financial performance and cash flows.<sup>1</sup>

This guide aims to help frame these internal conversations. The XRB is intending to issue further staff guidance on approaches to quantifying AFIs later this year.

## 1.1 Some reminders on disclosures

You can find guidance regarding AFIs disclosures in the XRB staff [Guidance for All Sectors](#). Below are some reminders from this guidance:

### **'Gross' not 'net'**

An entity should disclose the AFIs of its climate-related R&Os before its planned response to climate change is included.<sup>2</sup> ([NZ CS 1 BC30-31](#) and page 48)

<sup>1</sup> See Figure 6 of the XRB staff [Guidance for All Sectors](#).

### **Planned actions**

An entity may wish to cross-reference actions set out in its transition plan disclosure, explaining the extent to which its planned actions may modify AFIs. (page 49)

### **Ranges versus single amount**

Where AFIs information is provided quantitatively, an entity should consider using range estimates. Disclosing a range estimate enables an entity to communicate the estimation uncertainty of potential outcomes. (page 48)

### **Transparency**

An entity should ensure any significant assumptions, and other sources of estimation uncertainty, are made clear. (page 50)

### **Unable to disclose / unable to quantify**

An entity should make a reasonable effort to disclose. If unable to quantify, an entity should disclose AFIs in qualitative terms with a brief description of the process it followed. This should include what it considered, why quantification is challenging, and how these challenges might be overcome in the future. (page 51)

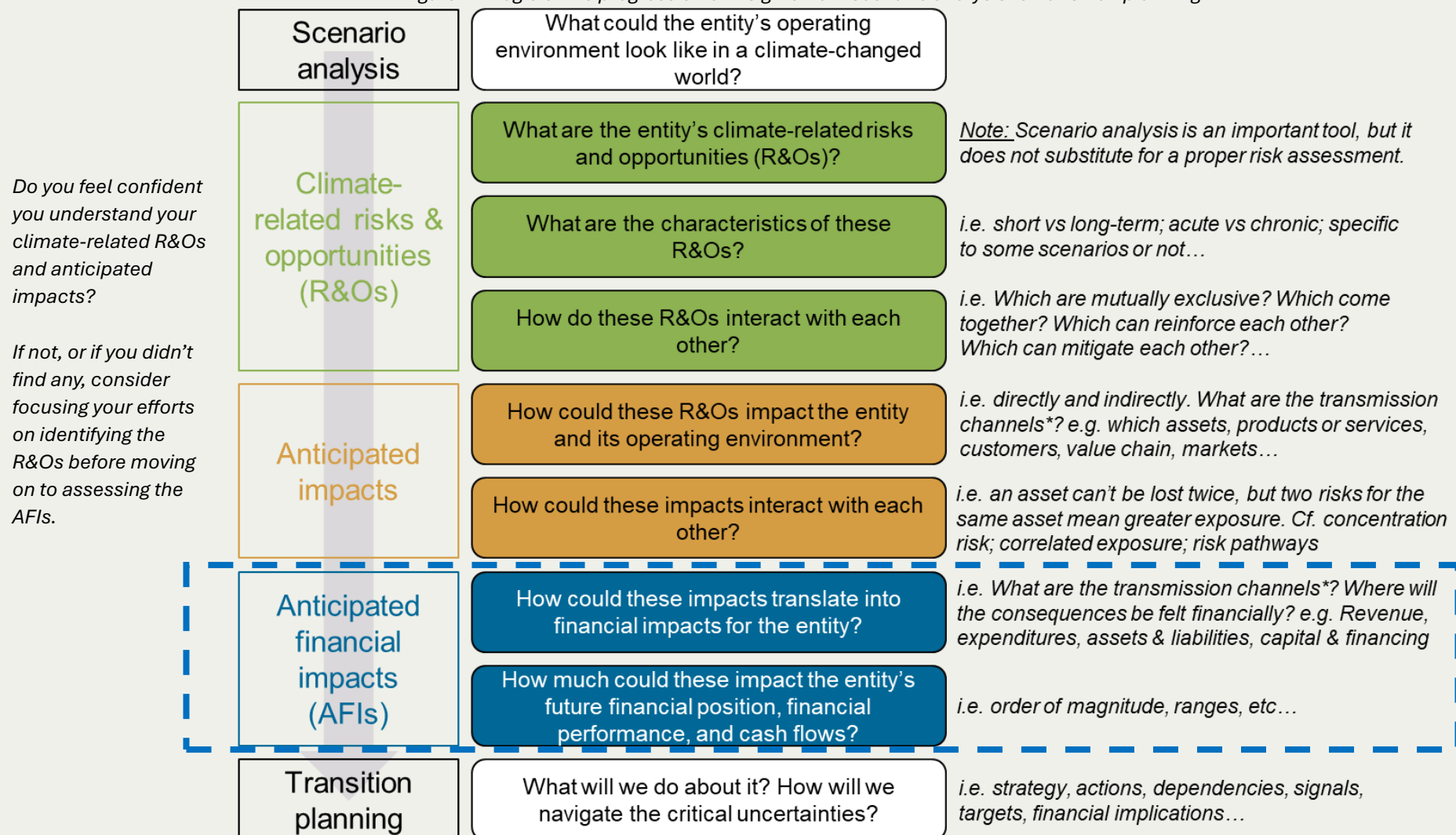
See also section 3.4 in this document.

<sup>2</sup> An entity's exposure to climate change should not be obscured by assumptions about the effectiveness of the response(s).

## 2. Overview: Place and role of AFIs in climate-related disclosures

Figure 1 below illustrates the chain of questions an entity should be trying to answer when exploring its climate-related R&Os. This illustrates the overall logic from the identification of climate-related R&Os to anticipated impacts, then translating into AFIs. Refer back to this figure as you read the rest of this document.

Figure 1 – Logic of the progression of insights from scenario analysis to transition planning



\* Transmission channels are the causal chains that explain how climate drivers give rise to impacts on an entity, directly or indirectly through their counterparties, the assets they hold and their operating environment. For example, see the Bank for International Settlement (BIS) publication on [climate-related risk drivers and their transmission channels](#).



## 3. Key messages

### 3.1 The why of AFIs in NZ CS

AFIs disclosures are intended to provide insights into an entity's **exposure and vulnerability to climate-related R&Os.**

Like climate scenarios, the anticipated impacts on an entity's future financial position, financial performance and cash flows are not a prediction of the future, but a way to get actionable insights.

AFIs are a key part of the rationale for an entity's transition plan.

### 3.2 Not about recognition in financial statements

**This is not about the recognition and measurement of financial reporting balances.**

To avoid any doubt, the reference to financial position, financial performance, and cash flows<sup>3</sup> indicates the different pathways through which the impact(s) of a risk could lead to financial consequences (see the diagram [on page 46 of the Guidance for All Sectors](#)).

There are limited connections to be made between the quantified AFIs disclosed in an entity's climate-related disclosures and the information presented in its financial statements. As explained in our 2023 staff guidance [Climate-related matters in financial statements](#), climate-related disclosures and financial statements have fundamentally different purposes and are intended to supplement

and complement each other. There are valid reasons for differences in reporting. The 2023 staff guidance aims to support entities in understanding the requirements in New Zealand accounting standards relating to climate-related matters in financial statements.

In climate statements, what could be reasonably expected to influence decisions by primary users (i.e. 'material') goes beyond a projection of the most probable future financial performance (see also section 3.4).

### 3.3 Focus on exposure and vulnerability, not probability

In risk assessment, particularly for natural hazards, 'hazard', 'exposure', 'vulnerability', and 'probability' are interconnected but distinct concepts. Hazard refers to the source of potential harm, such as a cyclone or flood. Exposure is what is at risk, such as buildings or people located in the hazard's path. Vulnerability describes how susceptible those exposed elements are to the hazard's impact. Probability is the likelihood of the hazard occurring, influencing the overall risk level.

In the case of climate hazards (or drivers), the probability of the hazard cannot be controlled or mitigated, and estimating this probability is challenging, which makes the concept of probability a less useful criterion in an entity's climate-related risk assessment.<sup>4</sup> Instead, assessing what is at risk from which hazard (exposure), and the level of hazard that can cause an adverse impact (the vulnerability)

<sup>3</sup> i.e. in [NZ CS 1 definition of financial impacts](#), which needs to be read along the definition of impacts.

<sup>4</sup> See this [example in New South Wales](#) which also highlights that hazards probabilities are both misunderstood and are often conveyed as averages, which mask the hazard's geospatial aspects.





provides more useful information for managing climate-related risks than assessing probabilities.

Probabilities will be used by primary users looking across investment opportunities as a whole, but an entity's view on the likelihood of a cyclone may hold little value for a primary user. However, an entity can provide unique insights into the impacts (including financial) of a cyclone on its operations.

### 3.4 The use of “reasonably expected”

Reasonably expected is not a defined term in NZ CS 1. This means it is used as a plain language qualifier for ‘anticipated impacts’ [15 (a)] and ‘anticipated financial impacts’ [15 (b) and (c)]. For example: If the hazard (e.g. drought) happens, what would the entity reasonably expect the impacts and their financial consequences to be?

Importantly, the ‘reasonably expected’ qualifier *only* applies to anticipated impacts and AFIs disclosures, not to any other disclosure requirements in NZ CS 1, including the R&Os disclosures (see [NZ CS 1 BC28c](#)).

“Reasonably expected” does not equate to “probable”. An AFI with a low probability might still be material.

### 3.5 Uncertainty is not a rationale for non-disclosure

The XRB acknowledged the inherent uncertainty of AFI disclosures ([NZ CS 1 BC28](#)). The uncertainty does not justify non-disclosure, as uncertain information can be relevant to primary users. Hence, focusing excessively on AFIs with a higher level of certainty is to be

avoided. As the Institute and Faculty of Actuaries stated: [The sting is in the tail](#).<sup>5</sup>

This acknowledgement of inherent uncertainty for AFIs is a recognition that not everything can be anticipated, but does not remove preparers’ duty of care, skill and diligence.

### 3.6 Different approaches will be needed

There is no one-size-fits all method. Differences in R&O characteristics mean appropriate approaches to assess AFIs vary.

The availability and reliability of data for different climate-related R&Os will vary. The level of accuracy needed to convey a decision-useful insight to primary users might also differ. The most appropriate way of expressing an AFI will differ as a result, as will assessment methods and the level of effort required.

#### 3.6.1 AFIs assessment necessitates a cross-functional approach

It is essential for entities to avoid a narrow perspective when evaluating these impacts. Overextending the applicability of certain methods, such as using projections over excessively long-time horizons, presents risk. Entities should consistently evaluate whether the chosen method is appropriate, considering the distinct characteristics of each type of risk or opportunity.

For example, an appropriate approach to assess long-term, high-impact risks that could eventuate only under certain conditions is going to rely mostly on qualitative assessments and lean on the scenario analysis work conducted by the entity to produce insights.

<sup>5</sup> See [Climate-scorpion– the sting is in the tail](#) explainer about tail risk (page 9)

For example (note - all examples are illustrative, not from actual disclosures):

*“In a transitioning world, we estimate that half of our current revenue might be exposed to rapidly shifting customer behaviours driven by a combination of regulation (carbon pricing), market share erosion from growing alternatives, and loss of purchasing power.”*

In contrast, a current trend expected to continue, with known impacts, can be assessed more specifically, using modelling and projections over short-term horizons:

*“Shifting rainfall patterns last year resulted in a loss of crop productivity and we expect this trend to continue. Without action, we expect it to result in an annual average of 4% crop productivity decrease, resulting into 3% revenue losses per year (cumulative) over the next three years [revenues]. To compensate we will invest NZD 10 million [capital] in water management assets (e.g. draining and storage) [assets] to maintain the current level of productivity of our crops [revenues]. In addition, we expect to continue our purchase of arable lands in other areas at the same rate as last year (NZD 50 million) for at least the next three years [capital and asset]. In the long run, we will also consider shifting crops in the most exposed areas (no related AFIs estimate yet).”*

R&Os may also interact with each other.<sup>6,7</sup>

When projections and modelling are applied to individual R&Os, the results may appear immaterial. However, some R&Os could

collectively trigger cascading effects, resulting in significantly greater impacts. For example:

*“Individually, the impact of rising sea-levels and increased flooding on the value of exposed properties is not considered material (<0.5% of asset value) in the short or even medium term, as our modelled damage functions show limited repair costs compared to the current value of these properties. However, we anticipate that the joint impacts of these risks could result in significant and sudden shifts in the market value of some of our assets under management. This is because the commercial buildings we own get most of their value from their location in a dynamic population centre. Some of these could see some level of insurance retreat or lose value as the most affluent residents move away to avoid experiencing flooding. We have assessed that 8% of our assets (in value) are exposed to such risk, with a concentration up to 3% in a single risk area. The time horizon for these risks triggering is very uncertain, as is the pace at which they could unfold. We are refining our analysis in the areas identified to adjust our asset management approach accordingly.”*

### 3.6.2 Being pragmatic

The XRB Board decided “to be less prescriptive than the ISSB with regard to anticipated financial impacts” and “considered it important to be more principles-based as this is a new area of disclosure, and to allow practice to emerge.” ([NZ CS 1 BC33](#)). This approach leaves room for entities to approach this disclosure requirement in a way that is useful for them and their primary users. The XRB guidance will evolve with good practice.

<sup>6</sup> See the [work from Chatham House for examples of cascading climate risks](#).

<sup>7</sup> See table 1 in [A framework for complex climate change risk assessment](#) for a taxonomy of risk interactions.



### 3.7 Be wary of considering long-term impacts immaterial

As a general rule, focusing only on a narrow subset of information presents the risk of missing important insights.

For example, an entity should be wary of considering some financial impacts as immaterial because these are long-term. An AFI estimate can be material for a user if it provides insights about the long-term prospects of the entity.

In addition, many climate models in financial services underestimate risk, with the rate of warming potentially faster than earlier anticipated<sup>8</sup>. As such, while impacts may be considered long-term, tipping points and other interconnected risks could accelerate their timelines. Discussing the inclusion of longer-term impacts and tail risks into AFI analysis with service and data providers will help to ensure potentially material considerations are not overlooked.

*The long-term prospects of an entity are material to primary users.*



<sup>8</sup> See [The emperor's new climate scenarios](#), page 6 on the underestimation of risks in many climate models, and from page 20 about climate sensitivity.

### 3.8 Take a holistic approach

As noted in Figure 1, when assessing its AFIs, an entity would have already identified its material climate-related R&Os informed by its climate scenario analysis and risk assessment.

#### 3.8.1 Link with the scenario analysis

Similarly to R&Os, AFIs don't necessarily need to flow directly from climate scenarios. However, since climate scenarios are designed to challenge the entity's strategy and business model, there should be links with them in AFIs. Some AFIs could eventuate or be material only in some scenarios, and this is important context for primary users.

For the avoidance of doubt, an entity is not required to assess AFIs by scenario. However, it is expected that all scenarios will be considered when making an AFIs assessment.

Climate scenario analysis is considered best practice to surface R&Os under conditions of high uncertainty, and is therefore a good indicator of what could be 'reasonably expected'.

#### 3.8.2 Link with R&Os and anticipated impacts

The estimation of AFIs is dependent on the estimation of anticipated impacts. Therefore, the way R&Os are characterised will have an influence on the output of an AFIs assessment, and care should be taken when considering the appropriateness of the whole chain of information.

Our [Guidance for All Sectors](#) outlines the fundamentals of climate-related R&Os. The TCFD notes that climate R&Os have unique



characteristics, which means they need to be thought about differently to most typical business R&Os.<sup>9</sup>

Important reminder: For climate change, a hazard/exposure/vulnerability risk approach<sup>10</sup> is more appropriate than the common likelihood/severity approach. When it comes to systemic drivers like climate change, the notion of ‘probability’ becomes very hard to assess, even qualitatively. The probability of individual risks also becomes of secondary importance, given the systemic nature of change. Firstly, this results in high interactions between R&Os<sup>11</sup> and secondly, deep change is a given (but which change is uncertain). Therefore, the question shifts from ‘Could something happen?’ (vs business as usual) to ‘Which change could happen and where could it impact us?’

*Ensure the work on which the AFIs assessment is built is robust and fit for purpose.*



<sup>9</sup> TCFD, 2020. [Guidance on Risk Management Integration and Disclosure](#), p5, Table C1

<sup>10</sup> An equivalent for opportunities would be driver/potential/strength.

<sup>11</sup> See [Climate-scorpion– the sting is in the tail](#) “while it is simpler to consider risks in isolation, it is clear that, in the real world, risks are interconnected.” “Failure to consider these interconnections will underestimate risk.”

### 3.8.3 Link with transition planning

While the financial implications of the entity’s response could be material in the short-term, it is important to contextualise by comparing the actions taken in response and the scale of the AFIs in the absence of response (i.e. ‘gross’).

AFIs inform an entity’s transition plan; the need to manage future financial impacts will inform decisions regarding the use of financial resources in the present or short-term. A primary user might be interested in knowing if the entity’s response is proportionate to AFIs.

An entity will be expected to demonstrate it has credible resourcing plans to support the implementation of its transition plan. Note however that this corresponds to the requirement in NZ CS 1 paragraph 16(c), not in relation to AFIs (see [NZ CS 1 BC31](#)).

### 3.8.4 Shifting priorities are to be expected: reconsider your list of R&Os

There may be a need to reconsider the entity’s list of R&Os as it progresses in its characterisation of the R&Os and develops its impact pathways.<sup>12</sup> Entities should apply critical judgement and ensure that previous work done by the entity is fit for purpose to inform their AFIs assessment.

<sup>12</sup> The World Business Council for Sustainable Development’s Climate-related financial impact guide provides an [example of climate impact\(s\) pathway](#). Note that the guide then focuses on the quantification of impacts on the financial statements, which is different from anticipated financial impacts.



In addition, as an entity's understanding of its climate R&Os progresses (or as its operating environment evolves), it will likely change its assessment of what is material.

For example, an entity could identify a carbon price as a material risk in its first year, but then assess that all competitors face the same issue and the price will be passed on to customers. It will then focus on the risk of changing customer behaviour in the face of higher prices. Alternatively, it can also shift its focus to something unrelated that was not identified before and is deemed more critical.<sup>13</sup>

*Continuous improvements involve iterations from one year to another. The R&Os deemed material will change as entities mature.*



<sup>13</sup> If this risk was a critical uncertainty used in the scenario analysis, then the entity may wish to revisit both the scenario analysis and other critical uncertainties.

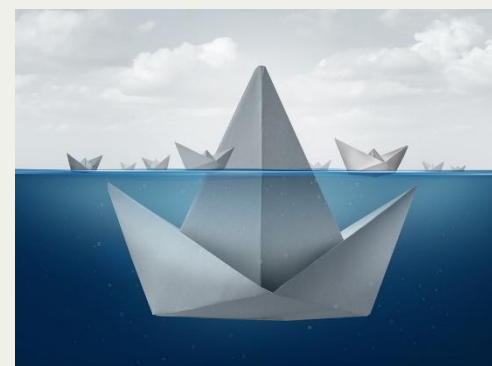
<sup>14</sup> The word 'data' is used in quotes here to highlight the often-blurred distinction in climate reporting between *data*—raw, but factual—and *information*—processed data, more meaningful but shaped by interpretation, assumptions, and context. Model outputs, for instance, may be used as input data without consideration of the

### 3.9 Consider what level of quantification makes the most sense

A high level of quantification is sometimes considered a sign of the sophistication and maturity of an organisation in managing climate-related R&Os. However, it is important to be wary of low-quality numerical 'data'.<sup>14</sup> This includes not overstating precision when uncertainties are high and/or 'data' is based on many assumptions.

Another common feature of discussions about quantification is an 'either/or' assumption between qualitative and quantitative information. A better question is 'What is the minimum level of quantification needed to provide decision-useful insights?'. Note that the answer might vary for any given risk or opportunity.

**"It is better to be roughly right than precisely wrong."<sup>15</sup>**



underlying assumptions, and disclosed information can be mistakenly treated as primary data by some users. This is a grey area, but it is essential that both users and producers of information maintain critical awareness of the quality and nature of such 'data'.

<sup>15</sup> John Maynard Keynes/Carveth Read.



## 4. Principles in practice

All [NZ CS 3 principles](#) apply. Here are some practical considerations in relation to AFIs:

- **Relevance:** Before attempting to quantify to the digit every identified R&O, preparers should carefully consider if further quantification will make a difference to primary users' decisions. If yes, then the level of detail of the information should reflect the insight needed.
- **Accuracy:** This should not be confounded with 'precision'. Both ranges and numbers can meet the principle of accuracy. Information can be accurate and qualitative at the same time. Conversely, overly precise information could be considered a misstatement (e.g. giving a very precise number for something subject to great uncertainty). This is particularly so if a more uncertain number is stated alongside other numbers with less uncertainty. As always, context matters.
- **Balance:** Balanced narrative explanations require that climate-related disclosures are portrayed in a manner that is free from bias. It is harder to avoid bias about the future than the past.<sup>16</sup> An entity might need to put in place some guardrails<sup>17</sup> to identify and test their assumptions.

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<sup>16</sup> See 'Expert Political Judgment' 2005 by Philip E. Tetlock, and 'Judgment Under Uncertainty' 1974 by Daniel Kahneman and Amos Tversky.

<sup>17</sup> Techniques like the "5 Whys", the "Ladder of Inference", and scenario analysis can help uncover hidden beliefs. More fundamentally, internal processes and management should promote a culture of assumption awareness by encouraging open communication and transparency about assumptions, and by ensuring it is safe to question those and challenge the status quo.

- **Understandability:** An entity might have a significant amount of data and assumptions from its internal processes. Disclosing all of it might not be material to its primary user, and may also obscure material information that is present. Even when a high level of granularity is provided, spelling out the insights provided by the assessment of AFIs is important for understandability. It will also help with the principle of coherence.
- **Completeness:** This includes providing the methods and assumptions (see [NZ CS 3 para 49](#)), and enough characterisation of the R&Os to avoid misinterpretations. For example, interactions between R&Os can be important context for some primary users to assess if an entity is within their risk appetite.
- **Coherence:** AFIs will be expected to be linked with the R&Os analysis conducted by the entity, on the basis of its climate-related scenario analysis. The level of (gross) AFIs is also an important input to explain the rationale behind the actions in a transition plan. Disclosures in climate statements and financial statements also need to be coherent.<sup>18</sup> A climate statement disclosing only low (or far away) climate-related risks (e.g. low risk from cyclones) will likely not be coherent with financial statements explaining that a similar climate event (e.g. Cyclone Gabrielle) had material consequences.

<sup>18</sup> [Accounting for Sustainability \(A4S\)](#) has issued a guide including key questions for finance teams to help understand the different transition planning activities that may have financial implications. The questions are organised along line items (Capex; Revenues; Opex) and wider implications (Value chain; regulation, internal pricing and offsets; raising capital).



## 5. Illustrations

Below are a few illustrations, not of disclosures, but of considerations and judgments that entities could make, based on their circumstances and the needs of their primary users.

### Primary industry's exposure and vulnerability to climate change

A grower was severely impacted by a drought two years ago, which caused major disruptions to operations and significant financial losses. This entity considered that it would be material for its primary users to understand the potential impacts and financial impacts of future droughts. Since that drought, the grower's exposure and vulnerability have changed. Some assets are now more resilient. The entity plans to explain the key factors that would influence the financial impact of a future drought (for example, whether it occurs before or after harvest). Recognising the high uncertainty around the frequency and intensity of future droughts—especially as these depend on global temperature pathways—the entity chose not to make specific assumptions. Instead, it disclosed a vulnerability indicator, outlining the conditions under which it expects profitability to be at risk (e.g. if two major weather events occur within a three-year period).

### Ahead of the pack

An entity has started its transition several years ago. NZ CS requires that an entity should disclose the AFIs before an entity's planned response to climate change is included. The entity wondered if it needed to define an artificial baseline in which they would stop their transition. The entity determined that this would result in extra work that would not be useful for the entity nor its primary users. Instead, it chose to use current trends and trajectories and disclose what the AFIs would be if these trends were unfolding faster or slower.

### The energy sector grappling with the suitability of a key financial measure

EBITDAF (Earnings Before Interest, Tax, Depreciation, Amortisation, and Fair Value movements of financial instruments) is a widely used non-GAAP financial measure in the energy sector.

Initially, the entity considered modelling different scenarios and disclosing the resulting EBITDAF across various time horizons. However, climate change introduces physical risks (such as droughts or floods) that can damage assets or reduce their productivity. EBITDAF does not account for the cost of replacing or adapting these assets, which can be significant. Similarly, EBITDAF excludes depreciation and fair value adjustments, both of which are critical when climate change forces companies to write down asset values or invest in adaptation. For instance, if a hydro asset becomes less reliable due to changing rainfall patterns, its long-term value may decline—but EBITDAF will not show that. In the short term, EBITDAF might look healthy even if the company is underinvesting in resilience or transition. This can create a misleading picture for assessing long-term sustainability.

As a result, the entity chose not to use EBITDAF for AFIs disclosures. It also felt that it would be misleading to forecast annual profit and loss impacts for long term periods considering the challenge to model the short to medium term. The entity chose to focus on explaining how climate change could affect their generation assets and provided an indication of the scale of those impacts and a sensitivity analysis on the carrying value.

We welcome feedback. Email us at [sustainability@xrb.govt.nz](mailto:sustainability@xrb.govt.nz)