International Actuarial Association
Association Actuarielle Internationale

ISAP 8

International Standard of Actuarial Practice 8

IFRS S2 Climate-Related Disclosures

[DATE]

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IFRS S2 Climate-Related Disclosures

Adopted by the IAA Council

[Date]

International Actuarial Association
Association Actuarielle Internationale

Tel: +1-613-236-0886
Email: secretariat@actuaries.org
605 – 75, Albert Street, Ottawa ON K1P 5E7 Canada
www.actuaries.org

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Preface

This International Standard of Actuarial Practice (ISAP) is a model for actuarial standard-setting bodies to consider.

The International Actuarial Association (IAA) encourages relevant actuarial standard-setting bodies to maintain a standard or set of standards that is substantially consistent with this ISAP to the extent that the content of this ISAP is appropriate for actuaries in their jurisdiction. This can be achieved in many ways, including:

- Adopting this ISAP as a standard with only the modifications in the Drafting Notes;
- Customizing this ISAP by revising the text of the ISAP to the extent deemed appropriate by the standard-setting body while ensuring that the resulting standard or set of standards is substantially consistent with this ISAP;
- Endorsing this ISAP by declaring that this ISAP is appropriate for use in certain clearly defined circumstances;
- Modifying existing standards to obtain substantial consistency with this ISAP; or
- Confirming that existing standards are already substantially consistent with this ISAP.

A standard or set of standards that is promulgated by a standard-setting body may be considered to be substantially consistent with this ISAP if:

- There are no material gaps in the standard(s) in respect of the principles set out in this ISAP; and
- The standard or set of standards does not contradict this ISAP.

If an actuarial standard-setting body wishes to adopt or endorse this ISAP, it is essential to ensure that existing standards are substantially consistent with ISAP 1 as this ISAP relies upon ISAP 1 in many respects. Likewise, any customization of this ISAP, or modification of existing standards to obtain substantial consistency with this ISAP, should recognize the important fact that this ISAP relies upon ISAP 1 in many respects.

If this ISAP is translated for the purposes of adoption, the adopting body should select three verbs that embody the concepts of "must", "should", and "may", as described in paragraph 1.6. Language of ISAP 1, even if such verbs are not the literal translation of "must", "should", and "may".

This ISAP is a model standard of actuarial practice and, as such, is not binding on any actuary.

This ISAP was adopted by the IAA Council on [Date].

[Drafting Notes: When an actuarial standard-setting organization adopts this standard, it should:

1. *Replace "ISAP" throughout the document with the local standard name, if applicable;*
2. *Modify references to ISAP 1 in paragraphs 1.3., 2.1., 2.2.1., 2.3., 2.4., and 3.1. to point to the local standard(s) that is/are substantially consistent with ISAP 1, rather than referring to ISAP 1 directly, if appropriate;*
3. *Choose the appropriate phrase and date in paragraph 1.7.;*
4. *Review this standard for, and resolve, any conflicts with the local law and code of professional conduct; and*
5. *Delete this preface (including these drafting notes) and the footnote associated with paragraph 1.7.]*

Introduction

This International Standard of Actuarial Practice (ISAP) provides guidance to actuaries when performing actuarial services in connection with the application of International Financial Reporting Standard S2 (IFRS S2) on Climate-Related Disclosures issued by the International Sustainability Standards Board (ISSB). IFRS S2 was issued on 26 June 2023.

While responsibility for climate-related disclosures rests with the entity making the disclosures, the actuary may perform work supporting the preparation of the disclosures. The considerations in this standard apply to an actuary engaged in such work.

The actuary should note that IFRS S2 allows considerable flexibility to an entity in preparing the climate-related disclosures if the entity is constrained by the availability of information or resources. However, under IFRS S2, an entity with a high degree of exposure to climate-related risks and opportunities, and with access to the necessary skills, capabilities, or resources, is expected to apply more advanced quantitative approaches to preparing the climate-related disclosures.

The IAA intends this ISAP to:

- Facilitate consistent and appropriate standards of actuarial practice in connection with IFRS S2;
- Increase public confidence in actuarial services provided in connection with IFRS S2;
- Facilitate collaboration with other disciplines and relevant authorities; and
- Demonstrate the IAA's commitment to support the work of the ISSB in achieving high-quality, sustainability-related standards.

Section 1. General

1.1. Purpose – This ISAP provides guidance to actuaries when performing actuarial services to support the preparation by an entity of climate-related disclosures in accordance with IFRS S2 issued by the ISSB. Its purpose is to increase intended users' confidence that:

- Actuarial services are carried out professionally and with due care;
- The results of the actuary's work are presented clearly;
- The uncertainties related to measurement of climate-related risks and opportunities are appropriately assessed and disclosed;
- The assumptions and methodology used in the actuary's work on IFRS S2 are disclosed appropriately; and
- The actuary has applied an appropriate level of precision commensurate with the degree of reliability of the data, assumptions, and models.

1.2. Scope – This ISAP applies to actuaries when performing actuarial services to support the preparation by an entity of climate-related disclosures in accordance with IFRS S2. The scope and nature of the actuarial services an actuary provides related to IFRS S2 will depend on the specific requirements of the assignment. The actuary should apply the guidance in this ISAP to the extent relevant to the scope and nature of the assignment.

1.3. Relationship to ISAP 1 – Compliance with ISAP 1 is a prerequisite to compliance with this ISAP.

1.4. Relationship to IFRS S2 and IFRS S1 – To the extent required to perform the work required under IFRS S2, the guidance in this ISAP complements the guidance in IFRS S2 and the International Financial Reporting Standard S1 (IFRS S1) on General Requirements for Disclosure of Sustainability-related Financial Information, which is not repeated in this ISAP. This ISAP is not intended to contradict IFRS S1 and IFRS S2, and if there are inconsistencies, the wording of IFRS S1 and IFRS S2 takes precedence.

1.5. Defined Terms – This ISAP uses various terms whose specific meanings are defined in the Glossary. These terms are highlighted in the text with a dashed underscore and in blue, which is a hyperlink to the definition (e.g., actuary).

This ISAP also uses key terms from IFRS S1 and IFRS S2, in which case they have the same intended or defined meaning as in IFRS S1 and IFRS S2. These terms are highlighted in the text with an underscore in orange colour (e.g., climate-related risks and opportunities).

1.6. Cross-References – This ISAP refers to the content of IFRS S2 and IFRS S1. If IFRS S2 and/or IFRS S1 are subsequently amended, restated, revoked, or replaced after June 2023, the actuary should consider the extent to which guidance in this ISAP is still applicable and appropriate.

1.7. Effective Date – This ISAP is effective for {actuarial services performed/actuarial services commenced/actuarial services performed relevant to IFRS S2 disclosures}[1] on or after [Date].

[1] Phrase to be selected and date to be inserted by standard-setter adopting or endorsing this ISAP.

Section 2. Appropriate Practices

2.1. Relevant Knowledge Requirements – In applying ISAP 1 paragraph 2.2.,[2] the actuary should have or obtain sufficient knowledge and understanding of the information necessary to perform the assignment. Specific considerations may include, depending on the nature of the assignment:

a. IFRS S1 and IFRS S2;

b. Any local requirements, including local law, relating to IFRS S2 or climate-related disclosures;

c. The business, financial, and climate-related environment in which the entity operates;

d. The entity's approaches to adapt to and mitigate the effects of climate-related risks and opportunities;

e. The relevant methodologies and assumptions used by the entity for which the disclosures are being prepared;

f. The skills, capabilities, and resources of the entity that are available to perform the assignment; and

g. Aspects of climate science, climate risk modelling, and enterprise risk management as required to perform the assignment, including but not limited to understanding:

i. How climate-related risks and opportunities could affect the entity's business model and value chain in relation to its assets, liabilities, and cash flows over the relevant time period;

ii. The entity's processes for identification, assessment, prioritization, and monitoring of climate-related risks and opportunities; and

iii. Risks and factors that could affect the pace and direction of climate change, such as political and social risks, and risks associated with the interconnection of changes in the natural environment.

2.2. Materiality – The actuary should understand the distinction between materiality with respect to the actuarial services and to the preparation of an IFRS S2 disclosure:

2.2.1. When establishing materiality of the actuarial services, the actuary should:

a. When appropriate for the work, seek guidance from the principal or the entity regarding materiality; and

b. In applying ISAP 1 paragraph 2.4.,[3] establish a threshold for materiality with respect to the actuarial services not greater than the entity's threshold of materiality for its IFRS S2 disclosures.

2.2.2. In all following paragraphs of this ISAP, any use of "material" or "materiality" is with respect to the actuarial services carried out in accordance with this ISAP.

[2] Knowledge of Relevant Circumstances.
[3] Materiality.

2.3. Proportionality – In applying ISAP 1 paragraph 1.5.,[4] and in particular paragraph 1.5.2., the actuary should take into account materiality. In addition, the degree of refinement in specific assumptions or methods recommended by the actuary should be proportionate to the potential impact on the results of the actuarial services. For example:

- The greater the entity's exposure to climate-related risks and opportunities, the more likely it is that a more sophisticated form of climate-related scenario analysis will provide more useful disclosures.
- The greater the uncertainty in the underlying data and assumptions, the less likely it is that increasing the sophistication in the analysis will provide more useful disclosures.

2.4. Use of Other-Party Expertise and Data

2.4.1. Work to support climate-related disclosures may involve significant reliance on information provided by other parties. This may include the use of the following:

a. Data from parties other than the entity;

b. Opinions and supporting analyses of other professionals and experts; and

c. Inputs and outputs from climate science, energy systems, and socio/macroeconomic models, and the assumptions and methodologies underpinning these models.

The actuary should treat such reliance as being subject to ISAP 1, paragraph 2.3.[5]

2.4.2. In reference to ISAP 1 paragraph 2.3., in situations of particular climate-related disclosure work in which it is the actuary who selects the party on whom to rely, the actuary should, to the extent practicable:

a. Identify and evaluate the pertinent criteria the party has adopted to select its sources of data, assumptions, and/or models.

b. Identify and assess the extent to which it is appropriate to rely on the party's:

i. Data;

ii. Assumptions; and/or

iii. Models (e.g., climate science, energy systems, socio/macroeconomic, catastrophe).

c. Maintain awareness of the evolving sources of data, assumptions, and models in the marketplace from which to choose.

2.5. Error! Reference source not found.Error! Reference source not found.Error! Reference source not found.**Preparation of Climate-Related Disclosures**

For ease of reference, the section headings and topic order for this section 2.5. align with the section headings and topic order in IFRS S2. References to the relevant IFRS S2 paragraphs are also included.

2.5.1. Governance (IFRS S2 paragraphs 5–7) – Where the actuary is performing work for the principal to prepare, provide input to, or review disclosures with respect to the governance processes, controls, and procedures the entity uses to monitor, manage,

[4] Reasonable Judgment.
[5] Reliance on Others.

and oversee climate-related risks and opportunities, the actuary should consider how climate-related risks and opportunities:

a. Affect the entity's business model, value chain, and financial circumstances; and

b. Are reflected and considered in the entity's risk appetite framework.

2.5.2. Strategy (IFRS S2 paragraphs 8–9) – Where relevant, the entity's strategy to manage climate-related risks and opportunities should be considered in performing the climate-related disclosure work and incorporated into the work.

When the entity's disclosed strategy to manage climate-related risks and opportunities affects the work being performed by the actuary and the actuary assesses the disclosed strategy and/or its effects on the work as not reasonable, the actuary should engage with the principal and/or the entity to resolve the material issues, and should disclose any unresolved concerns in their report to the principal on the work performed.

2.5.3. Climate-Related Risks and Opportunities (IFRS S2 paragraphs 10–12) – When the actuary is performing work for the principal to prepare, provide input to, or review disclosures with respect to the climate-related risks and opportunities that could reasonably be expected to affect the entity's prospects, the actuary should consider:

a. Whether the risks and opportunities identified by the entity that may apply are sufficiently broad in scope;

b. The appropriateness of and uncertainties related to the time horizons and projected effects for the risks and opportunities; and

c. The significant risks and opportunities that the actuary is aware of and/or is aware that other similar entities have disclosed.

2.5.4. Business Model and Value Chain (IFRS S2 paragraph 13) – When the actuary is performing work for the principal to prepare, provide input to, or review disclosures with respect to the current and anticipated effects of climate-related risks and opportunities on the entity's business model and value chain, the actuary should consider the projected effect of the entity's strategy to manage these risks.

2.5.5. Strategy and Decision-Making (IFRS S2 paragraph 14) – When the actuary is performing work for the principal to prepare, provide input to, or review disclosures with respect to the effects of climate-related risks and opportunities on strategy and decision-making, the actuary should consider:

a. The climate-related risk mitigation and adaptation strategies and the projected effects of such strategies incorporated into the entity's strategy to manage climate-related risks and opportunities; and

b. Where an entity has climate-related targets and a plan to achieve these targets that are incorporated into the entity's strategy to manage climate-related risks and opportunities, the reasonableness and sensitivities of the significant assumptions incorporated into the plans to achieve the targets.

2.5.6. Financial Position, Financial Performance, and Cash Flows (IFRS S2 paragraphs 15–21) – When the actuary is performing work for the principal to provide input to disclosures required by an entity under IFRS S2 with respect to quantitative information about the entity's financial position, financial performance, and cash

flows:

a. Where quantitative information is to be provided for the anticipated effects of climate-related risks and opportunities, the actuary should provide range estimates reflecting the degree of measurement uncertainty and/or limitations associated with the data, assumptions, and models used for the quantitative information wherever feasible unless:

   i. The principal requires point estimates; or

   ii. The actuary believes providing a point estimate would be more appropriate than providing a range of estimates, and discloses the rationale for providing only a point estimate.

b. In constructing models and performing analyses to determine the current or anticipated financial effects of climate-related risks and opportunities on the entity, the actuary should, where possible and meaningful, undertake this work in a manner that:

   i. Allows the effect of each individual climate-related risk and opportunity to be separably identifiable;

   ii. Supplements the approach in 2.5.6.b.i with a view on the collective effect of groups of risks and opportunities; and

   iii. Allows the effect of climate-related risks and opportunities to be separated into the entity's short-term, medium-term, and long-term time horizons.

c. The actuary should assess and document the level of measurement uncertainty in the quantitative information provided on the effects of climate-related risks and opportunities. Such assessments should include the key sources of uncertainty and may be based on quantitative and/or qualitative analysis.

d. Notwithstanding that the assessment of whether quantitative information is useful for disclosure is the responsibility of the entity, the actuary should provide the quantitative information to the principal along with the assessment of measurement uncertainty to help the entity to make this assessment, even where measurement uncertainty is high.

e. Where the actuary provides only qualitative information rather than quantitative information about the current or anticipated financial effects of climate-related risks and opportunities on the entity, the actuary should disclose the rationale for providing only qualitative information.

f. Where the actuary is performing work for the principal to review disclosures with respect to quantitative information about the current or anticipated financial effects of climate-related risks and opportunities on the entity, the actuary should consider the relevant aspects of the above considerations (2.5.6.a.–e.) in their review assessment.

2.5.7. Climate Resilience (IFRS S2 paragraphs 22–23) – When the actuary is performing work for the principal on climate-related scenario analysis to assess climate resilience:

a. In advising the principal on selecting or designing the scenarios, or performing a review of the scenarios proposed, the actuary should consider factors such as the following:

i. Application of a broad range of scenarios capturing different plausible pathways for future climate-related transition risks and climate-related physical risks, including considering:

- A scenario aligned with the latest international agreement on climate change and relevant national strategies;
- Other relevant published scenarios from reputable bodies; and
- Use of scenarios that capture different carbon net-zero transition pathways, taking into consideration different emission, socioeconomic, political, and technological pathways.

ii. In using published scenarios:

- The level of relevance of such scenarios to the actuary's work; and
- Any material limitations and uncertainties of the published scenarios used, including when applying them to the entity. For example, considering whether there are reasonably foreseeable scenarios that may generate more adverse effects to the entity than the range of effects indicated in the published scenarios.

iii. The characteristics of climate change scenarios, including the following:

- Plausible variations in assumptions that could significantly affect future climate-related exposures;
- The long-term nature of climate change where material risk exposures could emerge over time;
- Interdependencies and interconnections between climate-related risks and other risks;
- Potential for the advance of, and/or perception of, climate change to generate disruption ahead of longer-term effects;
- Potential non-linear effects and feedback loops between different risk drivers; and
- Implications of climate system tipping points.

iv. Materiality for the entity's different time horizons (short term, medium term, long term).

v. Alignment of the scenario to the risk profile of the entity.

vi. The circumstances of the entity (IFRS S2 paragraphs B2–B3 and B13).

vii. Disclosure of any material limitations and uncertainties when communicating outputs to the principal or users of the work.

b. When advising the principal or the entity on the modelling and outcome of the financial impact of the scenarios, or performing a review of the modelling and outcomes, the actuary should consider factors such as the following:

i. The appropriate evaluation tools and metrics to assess the effects on the financial position (effect on assets and liabilities), financial performance (profitability), and cash flows as outlined in IFRS S2 paragraph 15;

ii. The type of climate-related scenario analysis to be performed (e.g., quantitative or qualitative);

iii. Whether the starting points for model projections reflect current conditions and scientific consensus around climate change;

iv. The appropriate application of stress testing (e.g., one-time versus recurring shocks);

v. The effect of management actions under the scenarios;

vi. Model limitations around data, assumptions, and/or model methodology;

vii. Reliance on third-party data, assumptions, and/or models;

viii. Understanding the interconnectedness between multiple models;

ix. Ensuring that related assumptions across different models are consistent;

x. The ability of the outputs from modelling to distinguish between climate-related risk drivers versus other risk drivers;

xi. Ensuring the modelling of financial effects is performed at a sufficiently granular level;

xii. The need to identify and develop additional assumptions necessary for the entity; and

xiii. Disclosure of any material limitations and uncertainties when communicating outputs to the principal or users of the work.

2.5.8. Risk Management (IFRS S2 paragraphs 24–26) – Where an actuary is performing work for the principal to prepare disclosures on the processes and related policies the entity uses to identify, assess, prioritize, and monitor climate-related risks and opportunities, or is performing a review of these disclosures, the actuary should include in the aspects considered:

a. The entity's tolerance for climate-related risks, including how climate-related risks compare in magnitude against the entity's wider risks over different time horizons.

b. The extent and effectiveness of climate-related scenario analysis, including:

i. The extent to which scenario modelling is integrated into the overall risk assessment processes performed within the entity;

ii. Any limitations of the entity's climate-related scenario analysis, and the activities the entity is taking to address the limitations; and

iii. The extent to which the limitations of the entity's climate-related scenario analysis, including any modelling limitations, have been disclosed.

c. How the entity monitors its current and anticipated exposures to climate-related risks against its tolerance for climate-related risks.

2.5.9. Metrics and Targets (IFRS S2 paragraphs 27–37) – When performing work on climate-related emission metrics, the actuary should be aware of common industry-wide climate-related emission metrics and measurement approaches used for IFRS S2 disclosures, and should disclose if the metrics and measurement approaches used in the actuarial services deviate from common practice in the industry.

2.6. Considerations for Pension Funds

As there is no specific reference to pension funds in IFRS S2, the actuary advising a pension fund on IFRS S2 should consider the relevant guidance in IFRS S2 applicable to commercial banks, asset managers, and insurers.

Section 3. Communication

3.1. Reporting to Principal – In addition to complying with ISAP 1 Section 3. Communication, the actuary should provide to the principal, when appropriate to the engagement, the following:

3.1.1. For the effects of climate-related risks and opportunities on the entity's financial position, financial performance, and cash flows, the following items:

a. Disclosure of the current and anticipated effects consistent with the scope of the assignment;

b. Disclosure of any limitations or known omissions in how current or anticipated effects of climate-related risks and opportunities are reflected in the analysis or disclosure information provided;

c. Where quantitative information is not provided, disclosure of the rationale for not providing quantitative information (see 2.5.6.e.);

d. Where quantitative information is provided as a point estimate only, disclosure of the rationale for not providing a range of effects (see 2.5.6.a.ii.); and

e. Where quantitative information is provided, disclosure of the level of uncertainty in the analysis or disclosure information provided, including the key sources of uncertainty (see 2.5.6.c.–d.).

3.1.2. For climate-related scenario analysis, the following items:

a. Disclosure of how the analysis has been conducted, including scope, methodology, time horizons used, selection of scenarios, data, and assumptions;

b. Disclosure of the results of the climate-related scenario analysis;

c. Disclosure of any limitations or known omissions in the analysis provided;

d. Discussion of key sources of uncertainty; and

e. Disclosures of the extent to which the scenarios selected do not include a scenario aligned with the latest international agreement on climate change or have departed from those outlined by relevant reputable bodies, and the rationale for such departures (see 2.5.7.a.i.).

3.1.3. For climate-related emissions calculations, in disclosing the metrics and measurement approaches used, disclose if the actuary believes the metrics and measurement approaches used deviate from common practice in the industry (see 2.5.9.).

3.1.4. For all disclosure work performed, a summary of any unresolved concerns regarding the incorporation of the entity's strategy into the work, including but not limited to the entity's identification of climate-related risks and opportunities (see 2.5.3.), the portrayal of the entity's business model and value chain (see 2.5.4.), and the entity's strategies to manage climate-related risks and opportunities (see 2.5.5.).

3.1.5. For all disclosure work performed, a summary of the reliance on other-party expertise, data, assumptions, and models (see 2.4), including the nature and extent of the reliance; the steps, if any, that were taken to determine the appropriateness of such expertise, data, assumptions, and models; and any known gaps or concerns with respect to the other-party expertise, data, assumptions, and models.