National Index on Agri-Food Performance

Centre for Agri-Food Benchmarking

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Exploring Weighting Approaches for the National Index on Agri-Food Performance

Groupe AGÉCO

National Index on Agri-Food Performance

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Executive Summary

The National Index on Agri-Food Performance represents a major step forward in consolidating and communicating data on the sustainability of Canada's agri-food sector. As the Index moves beyond its pilot phase, the Centre for Agri-Food Benchmarking (the Centre) and its partners are considering whether and how to introduce weighting or aggregation across its indicators. This report was developed to inform that discussion by examining both the academic and practitioner literature on weighting approaches (Section 1) and the lived experience of comparable initiatives that have confronted similar questions (Section 2).

The review of literature identifies five broad approaches to weighting commonly used in sustainability indices: equal weighting, expert judgement, stakeholder consultation, statistical or data-driven approaches, and hybrid models. Each approach involves trade-offs across dimensions that are especially relevant to the Index, including transparency, resource requirements, susceptibility to bias, adaptability over time, and compatibility with multi-stakeholder governance. Importantly, no single approach performs best across all criteria, and none of the comparable indices reviewed relies on a purely statistical method.

The interviews reinforce the conclusion that weighting is not primarily a technical exercise, but a strategic and institutional choice. Organizations that adopt weighting usually do so to reduce ambiguity and increase external visibility. Aggregated scores or rankings can attract attention from policymakers and the media, support benchmarking, and create accountability dynamics that may spur action.

Conversely, several interviewees emphasized strong reasons for deliberately avoiding weighting. In multi-stakeholder coalitions with diverse values and priorities, fixed numerical weights can embed contested value judgements and destabilize consensus. Frameworks such as the Global Farm Metric and the Australian Agricultural Sustainability Framework therefore position sustainability dimensions as interdependent and context-specific, emphasizing alignment, dialogue, and learning over comparison or ranking.

Both the literature and interviews highlight that weighting—when adopted—inevitably attracts scrutiny and political pushback, particularly from actors who hold opposing viewpoints. Maintaining credibility requires sustained transparency, clear documentation, and robust governance. At the same time, avoiding weighting carries its own risks: purely descriptive frameworks may struggle to maintain relevance, and external actors may aggregate or rank published data independently, potentially without contextual nuance.

Across all cases reviewed, stakeholder engagement and sequencing emerged as critical success factors. Interviewees stressed that clarity of purpose must come before methodological decisions, and that some initiatives have successfully navigated these tensions through intermediate or "soft aggregation" approaches that improve coherence and communication without imposing rigid numerical hierarchies.

Overall, the report finds no universally "correct" approach to weighting. Instead, it underscores that the choice facing the Centre and its partners is fundamentally about the future role of the Index: how it balances clarity and nuance, leadership and inclusiveness, and stability and adaptability as it continues to mature.

Introduction

Background and Context

The National Index on Agri-Food Performance (the Index) represents a significant advancement in how Canada measures and communicates the sustainability of its agri-food sector. Developed through an unprecedented collaboration of private and public partners, the Index provides a consolidated, data-driven framework for assessing sustainability across four interconnected dimensions: Environment, Food Integrity, Economic, and Societal Well-Being (Centre for Agri-Food Benchmarking, 2023, 2025).

The Index broadly aligns with key national and global food goals, as well as the environmental, social, and governance (ESG) factors increasingly demanded by investors and market participants (Centre for Agri-Food Benchmarking, 2025). Its metrics reflect the full scope of Canada's agri-food context, encompassing agriculture and food production (including fisheries and aquaculture), processing, distribution, and retail. Prior to the Index, no consolidated national picture existed of the broad positive and negative impacts of the sector's performance across these sustainability dimensions (Centre for Agri-Food Benchmarking, 2023).

As the Index matures beyond its pilot phase (Index 1.0, launched in 2023), the Centre for Agri-Food Benchmarking and its partners are considering how the framework might evolve to enhance its utility and relevance (Centre for Agri-Food Benchmarking, 2025). **Among the questions being explored is whether and how to incorporate weighting into the Index's structure**. This question carries significant methodological and governance implications that warrant careful consideration before any decisions are made.

About Weighting and Aggregation

In the development of an index or dashboard, the question of **weighting** is closely related to that of **aggregation**. Weighting determines the relative importance of indicators ("How important is each indicator?"), whereas aggregation combines weighted indicators into a composite score ("How do we combine different dimensions of performance?"). Each step involves selecting a specific approach or method, which can lead to different results depending on the combination used. While distinct, these two aspects interact and influence one another in the construction of a consolidated score.

This report focuses on the weighting approaches that could be considered by the Centre. Aggregation methods have not been examined in depth; however, they are addressed indirectly through the review of academic and industry literature, as well as interviews with organizations, as the distinction is often blurred.

Current State of the Index

The National Index on Agri-Food Performance currently comprises 20 indicators organized across four sustainability blocks (Centre for Agri-Food Benchmarking, 2023, 2025):

- **Environment**: Seven indicators addressing climate change and greenhouse gases, soil health, water stewardship, biodiversity and agrobiodiversity, crop inputs use and management, food loss and waste, and packaging and waste.
- **Food Integrity**: Six indicators addressing safe food, nutrition information, antimicrobial stewardship, zoonotic disease mitigation, traceability implementation, and transparency and accuracy.
- **Economic**: Four indicators addressing national economic contribution, financial vibrancy and resiliency, innovation, and sustainable finance.
- **Societal Well-Being**: Three indicators addressing decent work for people, food security, and animal care.

Each indicator is supported by one or more metrics. The metrics draw primarily on data from the Government of Canada, supplemented by academic and industry sources where necessary (Centre for Agri-Food Benchmarking, 2023).

Currently, the Index does not score or rank the sector's performance (Centre for Agri-Food Benchmarking, 2023). The pilot phase documentation notes that the Index "does not yet allow for relative performance across the indicators to be assessed" (Centre for Agri-Food Benchmarking, 2023, p. 5), suggesting that questions about how to compare or aggregate indicator results remain open as the Index evolves.

Purpose and Scope of this Report

This report explores whether, why, and how the National Index on Agri-Food Performance should incorporate weighting. The report is conceptual, focusing on governance and methodological considerations rather than technical scientific calculations. It is intended to inform dialogue among the Centre's partners and support evidence-based decision-making about the Index's future direction.

The report draws on two primary sources of information. First, a review of academic and industry literature on weighting approaches for sustainability indices examines the rationale for weighting, common methodologies, and the apparent trade-offs associated with each. Second, interviews with representatives from comparable organizations that have implemented weighting in their indices provide practical insights into decision-making processes, challenges encountered, and lessons learned.

The list of organizations considered in the review is available in Appendix 1.

Specifically, this report aims to accomplish the following objectives:

- Provide an overview of weighting methodologies used by selected internationally recognized organizations in sustainability indices, including their strengths, limitations, and relevance to the Index (section 1).
- Synthesize lessons learned from comparable organizations that have navigated similar decisions (section 2).
- Discuss the case for and against introducing weighting to the Index and present options for the Centre's consideration (section 3).

This report does not recommend a specific course of action. Rather, it provides the information and analysis needed to support an informed discussion among partners about whether and how to proceed with this initiative.

It is important to note what the Index is not designed to do. The Index does not score or rank individual producers, companies, or jurisdictions. It does not prescribe specific pathways to sustainability, compare Canada's performance against other countries, serve as a consumer-facing label, or assess the sustainability of individual commodities, products, or consumer diet choices. Ultimately, it aims to provide a consolidated, data-driven evidence base that supports sector-wide dialogue, decision-making, and alignment (Centre for Agri-Food Benchmarking, 2025).

As the Centre for Agri-Food Benchmarking considers the best methodologies for scaling sustainable solutions, the question of weighting arises naturally. A weighting framework could help communicate the relative importance of different sustainability dimensions, but such decisions carry implications that must be carefully examined. This report contributes to the foundation for that discussion.

1 Review and Comparison of Typical Weighting Approaches

1.1 Overview of Typical Weighting Approaches

The review of academic and industry literature on weighting approaches for sustainability indices led to the identification of five (5) main approaches used for weighting indicators.

Equal Weighting

Equal (or uniform) weighting assumes that all categories and indicators are of equivalent importance and distributes weight evenly across them. This approach has the advantage of simplicity and avoids subjective judgement, but a disadvantage is that it assumes all categories are equally significant when this may not reflect reality (Economist Impact, 2021, p. 7).

Expert Judgment and Panel-Based Weighting

Expert-assigned weighting relies on discussions among researchers, advisory boards, or specialist panels to determine the relative value of each indicator. This approach brings a real-world perspective to an index, which is important if it is intended to guide policy actions (Economist Impact, 2021, p. 7). For example, the World Benchmarking Alliance's methodology is overseen by an independent multi-stakeholder Expert Review Committee that reviews and discusses proposed revisions during formal sessions (World Benchmarking Alliance, 2022, p. 8).

Stakeholder Consultation and Participation Approaches

Stakeholder consultation incorporates feedback from a range of parties, including companies, civil society, financial institutions, governments, and independent experts. The World Benchmarking Alliance sought feedback through company webinars, farmer roundtables, public consultations, and discussions with their Expert Review Committee, with all feedback compiled and carefully considered to refine the methodology (World Benchmarking Alliance, 2022, pp. 5–7).

Statistical and Data-Driven Approaches

Statistical approaches use techniques such as normalization to transform raw indicator data to a common scale so that indicators can be aggregated and compared. For example, the Food Sustainability Index normalizes all indicators to a 0–100 scale using min/max normalization, where the minimum and maximum raw data values across countries are used to establish the score range (Economist Impact, 2021, p. 12).

Hybrid Approaches

Some frameworks combine multiple weighting methods to balance different considerations. For example, FAO's SAFA framework applies equal weighting across sub-themes, but within the environmental dimension it uses a hierarchy that assigns different weights to indicator types: performance indicators receive the most weight (3 points), practice-based indicators receive moderate weight (2 points), and target-based indicators receive the lowest weight (1 point) (FAO, 2014, pp. 60, 64).

1.2 Comparison of Methodologies: Trade-Offs and Applicability

The five weighting approaches described above each involve distinct trade-offs. This section compares them across several dimensions that are particularly relevant to the National Index on Agri-Food Performance, given its multi-stakeholder governance structure, its four-block architecture, and its current phase of development (cf. Table 1).

Transparency and Ease of Communication

Equal weighting is the most straightforward approach to explain and defend, as it requires no justification for why one dimension matters more than another (Economist Impact, 2021, p. 7).

Expert judgment and stakeholder consultation approaches can also be communicated clearly, provided the rationale is well documented—as the World Benchmarking Alliance demonstrates by publicly stating that its three core measurement areas carry equal weighting because they are considered equally important for food systems transformation (World Benchmarking Alliance, 2022, p. 11).

Statistical and data-driven approaches, while rigorous, are often more difficult to communicate to non-technical audiences, as they require explaining normalization procedures and formulae (Economist Impact, 2021, p. 12).

Hybrid approaches present the greatest communication challenge, as they require explaining different weighting logics operating simultaneously within the same framework—for example, the SAFA framework's use of equal weighting across sub-themes alongside, a hybrid approach combining expert judgment with an evidence-informed rationale within environmental indicators (FAO, 2014, pp. 60, 64).

Resource and Expertise Requirements

The approaches vary considerably in the resources they demand.

Equal weighting does not require deliberation or analysis to assign or revise weights. **Expert judgment** requires access to qualified specialists and structured deliberation processes; the FSI's expert-assigned weights, for instance, involved extensive discussions among Economist Impact, the BCFN research team, and the BCFN Advisory Board (Economist Impact, 2021, p. 7).

Stakeholder consultation is the most resource-intensive of the deliberative approaches, as it involves coordinating input from multiple parties—the World Benchmarking Alliance's process included company webinars, farmer roundtables, public consultations, and Expert Review Committee discussions (World Benchmarking Alliance, 2022, pp. 5–8).

Statistical approaches require specialized technical capacity for data transformation and modelling but may require less ongoing stakeholder coordination. **Hybrid approaches** compound these demands, requiring both technical and consultative resources.

Susceptibility to Bias and Political Influence

Each approach carries a different type of bias risk. **Equal weighting** avoids subjective judgement but embeds an implicit assumption that all dimensions are equally significant, which may not reflect reality (Economist Impact, 2021, p. 7).

Expert judgment concentrates decision-making authority among a relatively small group, creating a risk that the panel's composition or disciplinary orientation may shape the outcome. **Stakeholder consultation** distributes influence more broadly but introduces the risk that politically organized or well-resourced groups may exert disproportionate influence on the process.

Statistical approaches are less susceptible to political influence but embed methodological choices—such as the selection of normalization boundaries—that can significantly affect results (Economist Impact, 2021, p. 12). **Hybrid approaches** may mitigate some of these risks by combining multiple perspectives, though they also accumulate the biases of each component method.

Adaptability and Capacity for Revision Over Time

The ability to revise weights over time is an important consideration for a maturing index.

Equal weighting is the most stable but also the least responsive to evolving priorities or new evidence. It also allows for easier comparison through time. **Expert judgment** allows for periodic revision through structured review cycles; the World Benchmarking Alliance's Expert Review Committee reviews and discusses proposed revisions during formal sessions (World Benchmarking Alliance, 2022, p. 8). The FSI takes this a step further by providing an adjustable weightings functionality that allows users to assign more or less importance to themes and indicators (Economist Impact, 2021, p. 7), effectively enabling adaptation without modifying the index's core methodology.

Stakeholder-driven revisions require reconvening consultative processes, which can be resource-intensive but ensure continued buy-in. **Statistical weights** may shift automatically as underlying data patterns change, which can be a strength or a liability depending on whether those changes reflect substantive shifts or data artefacts. The Environmental Performance Index illustrates this dynamic in practice: between the

2022 and 2024 editions, the research team shifted the weight assigned to ecosystem vitality from 42% to 45%, environmental health from 20% to 25%, and climate change from 38% to 30%, reflecting evolving scientific understanding and policy priorities (Wolf et al., 2022, p. 3; Block et al., 2024, pp. 3–4). However, such change impedes results comparison over the years.

Compatibility with Multi-Stakeholder Governance

The National Index is built on a coalition of over 165 private and public partners (Centre for Agri-Food Benchmarking, 2026), making the governance implications of any weighting approach especially significant. It is possible that **equal weighting** could offer the most politically viable option in a large coalition, as it avoids privileging any one dimension or stakeholder group.

Expert judgment requires partners to accept the authority of a designated panel, which may be difficult in a coalition where diverse perspectives are central to the initiative's legitimacy. **Stakeholder consultation** aligns most closely with the Index's participatory ethos, though achieving consensus among partners and their stakeholders is inherently challenging.

Statistical approaches delegate weighting decisions to data and methodology, which may reduce direct conflict among partners but may also be perceived as opaque. The Global Farm Metric's approach of avoiding fixed weightings altogether and instead treating sustainability categories as interdependent, adaptable goals (Global Farm Metric, 2025a, 2025c) offers another model—one that emphasizes alignment over standardized scoring and could be worthwhile for the National Index to consider, given its similarly diverse stakeholder base.

Precedent Among Comparable Indices

It is noteworthy that none of the comparable organizations reviewed in this report relies on a single, purely statistical approach to weighting (cf. Table 1; Appendix 1).

- The **Food Sustainability Index** (FSI) uses expert judgment as its default while offering equal weighting and customizable user-defined weights as alternatives (Economist Impact, 2021, p. 7).
- The **World Benchmarking Alliance** (WBA) applies broadly equal weighting across its three core measurement areas, informed by stakeholder consultation, with targeted adjustments where justified — such as reducing the nutrition weighting for upstream companies with limited impact in that area (World Benchmarking Alliance, 2022, pp. 11–12).
- **FAO's SAFA** framework uses a hybrid model, applying equal weighting across sub-themes while differentiating among indicator types within the environmental dimension: performance indicators receive 3 points, practice-based indicators receive 2 points, and target-based indicators receive 1 point (FAO, 2014, pp. 60, 64).

- The **Environmental Performance Index** (EPI) employs a hierarchical expert-determined structure in which weights are set by the research team at the policy objective, issue category, and indicator levels, and are recalibrated between editions as priorities evolve (Wolf et al., 2022, p.3; Block et al., 2024, p.3).
- The **Global Farm Metric** deliberately avoids prescribing weightings, instead positioning its categories as shared goals adaptable to local context (Global Farm Metric, 2025a, 2025c).
- The **Australian Agricultural Sustainability Framework** similarly refrains from assigning fixed weightings or scores, instead providing a principles-based structure of 19 non-hierarchical principles under three themes that serves as a communication platform rather than a scoring system (McRobert, Maroccia & Denton, 2025, pp. 7, 11).

This diversity of practice suggests that there is no single "correct" approach; rather, the choice depends on the specific purposes, governance context, and maturity of the index in question.

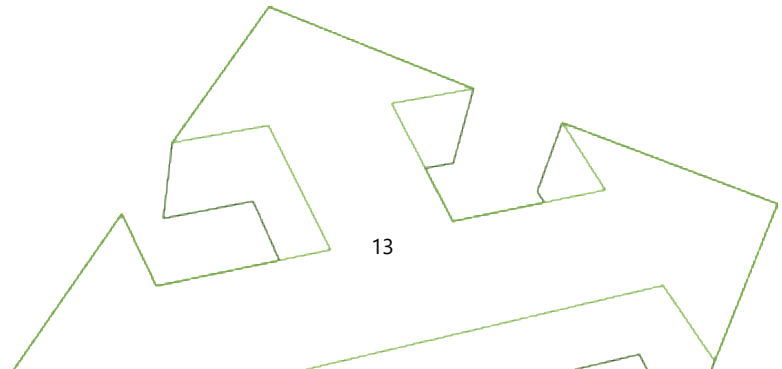
1.3 Summary of the Literature Review

The following table summarizes the key trade-offs across the five approaches discussed in this section.

As this comparison illustrates, no single approach is clearly superior across all dimensions. The choice of weighting methodology involves an inherent trade-off between simplicity and nuance, between transparency and responsiveness, and between political feasibility and analytical rigour. The lessons from comparable initiatives, discussed in the following section, offer additional practical insights into how these trade-offs have been navigated in practice.

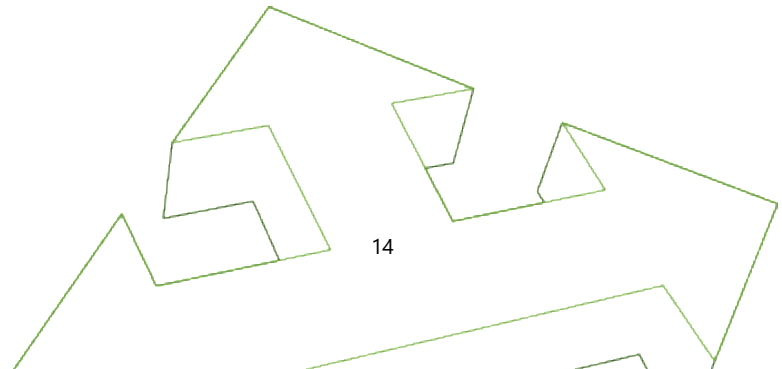
Table 1 – Key Trade-Offs Across the Five Approaches to Weighting

Dimension	Equal weighting	Expert judgment	Stakeholder consultation	Statistical / data-driven	Hybrid
Transparency	High. Easy to explain; no subjective choices to justify.	Moderate. Clear if rationale is documented; less so if reasoning remains implicit.	Moderate to high. Participatory process enhances perceived legitimacy.	Low to moderate. Technically rigorous but difficult to communicate.	Low. Multiple logics operating simultaneously are harder to explain.
Resource requirements	Low. No deliberation or analysis needed.	Moderate. Requires convening qualified panels.	High. Requires coordinating multiple stakeholder groups.	Moderate. Needs technical capacity for modelling.	High. Compounds technical and consultative demands.
Bias risk	Implicit assumption of equal significance.	Panel composition and disciplinary orientation may shape outcomes.	Well-resourced groups may exert disproportionate influence.	Methodological choices embedded in technical design.	May mitigate individual biases but accumulates those of each component.
Adaptability	Stable but unresponsive to evolving priorities.	Revisable through periodic expert review cycles.	Requires reconvening consultative processes; ensures buy-in.	May shift automatically with data; can be a strength or a liability.	Flexible but complex to revise coherently.



Coalition compatibility	High. Avoids privileging any dimension or stakeholder (assuming all indicators are equally robust).	Moderate. Requires partners to accept panel authority.	High in principle, but consensus among 165+ partners could be challenging depending on the preferred approach to consultation.	Moderate. Reduces direct conflict but may feel opaque depending on the preferred approach to consultation.	Variable. Depends on the specific combination of methods chosen.
Comparable index precedent	FSI offers equal weighting as an alternative; WBA uses broadly equal weighting across core areas; AASF uses non-hierarchical principles with no fixed weights.	FSI default; EPI uses hierarchical expert-determined weights recalibrated between editions.	WBA methodology informed by extensive multi-stakeholder consultation; AASF developed through co-design with industry, government, and experts.	No comparable index reviewed relies on a purely statistical approach.	SAFA combines equal sub-theme weighting with an environmental indicator hierarchy. GFM and AASF avoid fixed weightings entirely.

Source: Groupe AGÉCO



2 Lessons from Comparable Indices

Semi-structured interviews with representatives from comparable organizations were conducted to learn from their experience and collect practical insights into decision-making processes, challenges encountered, and lessons learned (Table 2). The interview guide is available in Appendix 2.

Table 2 – Organizations and representatives

Organizations	Representatives
Yale EPI	Sebastian Block, Former Project Director
Global Farm Metric	May Wheeler, Projects Manager
Australian Agricultural Sustainability Framework	Katie McRobert, Executive Director

2.1 Reasons for Adopting – or not – a Weighting Approach

International organizations that have adopted weighting approaches typically do so to **reduce ambiguity**, **enhance clarity**, and **increase external impact**. Interviews conducted for this project confirmed that weighting enables aggregation into a score or ranking which is easier to communicate, has a higher potential of garnering attention and, with this, can lead to more involved and productive debate. In the words of one interviewee, weighted aggregation allows complex datasets to be transformed into a "**flashy ranking that would get a lot of media attention and a lot of attention from policymakers**", and such communicative power is a primary benefit of weighting.

Weighting approaches further support organizational and governmental reputation effects, spurring competitive dynamics that can incentivize action. This occurs through increased visibility and purchase in public and policy discourse, and in the ability to establish and promote benchmarking and comparison: when weighting generates metrics that can be compared to other regions, organizations, or nations, this can spur further activity, funding, and collaboration.

A related motivation, raised explicitly in the AASF interviews, is **the desire to maintain control over interpretation**. Where organizations publish unweighted data without synthesis, other actors may aggregate or rank those data independently, potentially in ways that conflict with the original intent. As one interviewee put it: "If you don't [interpret it], others will… using your numbers." Several interviewees noted that choosing not to weight does not prevent value judgements; it merely shifts them to external users. From this perspective, weighting can be seen as a way to exercise leadership in framing the sustainability narrative.

By contrast, organizations that deliberately avoid weighting typically do so because **their primary objectives are dialogue, alignment, and learning rather than judgement or comparison**. Both the Global Farm Metric (GFM) and the Australian Agricultural Sustainability Framework (AASF) framed sustainability as inherently contextual and normative, arguing that fixed weightings risk imposing a single hierarchy of values on highly diverse systems. In multi-stakeholder coalitions, in particular, weighting was seen as likely to destabilize hard-won consensus. As one interviewee put it, once value judgements are embedded in a system, "the coalition will most likely break down."

Avoiding weighting also reflects a strategic choice to remain non-prescriptive. Frameworks such as GFM and AASF are intended to define shared principles and support reflection, while leaving interpretation and prioritization to users operating in specific contexts. For these initiatives, maintaining stakeholder autonomy and inclusiveness was judged more important than achieving comparability or producing rankings. These contrasting rationales are summarized in Table 3.

Table 3 – Reasons for Adopting or Avoiding Weighting

Dimension	Adopt Weighting	Avoid Weighting
Primary objective	Communication, visibility, impact	Dialogue, learning, alignment
Key benefit	Produces rankings and "headline" scores; attracts policymakers and media attention	Preserves nuance and contextual interpretation
Strategic advantage	Enables benchmarking, competition, and reputational incentives	Maintains inclusiveness and stakeholder autonomy
Control over interpretation	Retains control over how data are interpreted and framed	Avoids imposing value judgments; leaves interpretation open
Coalition dynamics	Can introduce tension due to embedded value judgments	Supports consensus in diverse multi-stakeholder groups

2.2 Challenges Faced Regarding Weighting – or not – Indicators

Interviewees consistently emphasized that **weighting is challenging not only technically, but politically and institutionally**. Even when grounded in scientific proxies or data driven logic, **weighting inevitably involves judgement**. Decisions about relative importance, thresholds, and aggregation structures raise questions of legitimacy and fairness, particularly when results are used to rank countries, sectors, or systems.

Organizations that apply weighting often face **sustained external pushback**, most commonly from actors with opposing viewpoints. The EPI experience illustrates this dynamic: governments frequently challenge data sources, indicator selection, or weighting rationales when rankings are unfavourable. Managing these

reactions requires significant investment in transparency, documentation, and communication, as well as a willingness to defend methodological choices over time.

There are also methodological challenges. Aggregation can amplify weaknesses in underlying data, magnify uncertainty, and complicate comparisons across editions if weights are revised. While periodic recalibration may be justified scientifically, it can undermine longitudinal consistency and create confusion among users.

At the same time, **avoiding weighting is not without risks**. Several interviewees highlighted that purely descriptive frameworks can struggle to maintain relevance if they stop short of interpretation. Over time, repeatedly stating that issues are important but not yet measurable or assessable may erode stakeholder confidence. There is also the practical risk that, in the absence of official synthesis, external actors will create their own rankings or composite indicators, potentially with less transparency or contextual sensitivity. Table 4 summarizes these contrasting challenges.

Table 4 – Challenges Associated with Weighting and Not Weighting

Challenge Type	With Weighting	Without Weighting
Political / legitimacy	Disputes over fairness, priorities, rankings	Risk of external actors imposing their own interpretations
Stakeholder reactions	Pushback from poorly ranked actors	Lower external visibility and pressure
Methodological	Aggregation can amplify data weaknesses; sensitivity to weighting choices	Lack of synthesis may limit interpretability
Temporal consistency	Reweighting reduces comparability over time	May struggle to show progress clearly
Communication	Easier to communicate (scores, rankings)	Harder to translate into actionable insights
Strategic risk	Oversimplification of complex systems	Loss of relevance or impact over time

2.3 The Stakeholder Engagement Process

Across all interviews, **stakeholder engagement emerged as the single most critical success factor**, regardless of whether weighting was adopted. Interviewees stressed that **discussions about weighting should never precede agreement on the purpose of the framework itself**. Attempts to resolve methodological questions without clarity on intended use were described as unproductive and divisive.

Successful initiatives invested heavily in sequencing. Rather than starting with indicators or weights, they focused first on establishing shared principles and a common understanding of sustainability. Only once there was alignment on objectives and language did discussions move toward criteria, indicators, and, in some cases, weighting. This gradual approach allowed trust and legitimacy to develop over time.

Transparency was repeatedly identified as essential, particularly for weighted indices. Where weighting exists, full access to data, assumptions, and rationales is required to sustain credibility. Equally important, however, was the recognition that **consultation has limits**. Extensive stakeholder engagement can be slow and resource intensive, and does not automatically yield better outcomes. As the AASF experience illustrated, broad participation must be balanced with clear governance structures and decision rules.

Some organizations addressed these tensions through what interviewees described as "**soft aggregation**". Rather than numerically weighting indicators, they harmonized information under higher level principles or thematic blocks. Instead of answering "how much does X matter vs. Y?", soft aggregation would answer questions such as "How do these elements relate?", and "What story does the overall system performance tell?" In the case of AASF, this approach allowed diverse systems to be connected narratively without forcing quantitative trade offs that stakeholders were unwilling to accept.

2.4 Summary of the Interviews

Several consistent lessons emerged from the comparative experiences reviewed.

First, **there is no universally optimal weighting approach**. Decisions about weighting must reflect the specific governance context, maturity, and objectives of each initiative. Methods that work well for academically led or advocacy-oriented indices may be inappropriate for industry-driven coalitions.

Second, **weighting trades nuance for visibility**. Aggregated scores are powerful communication tools, but they inevitably simplify complex realities and can obscure important trade-offs. Conversely, unweighted frameworks preserve complexity but may struggle to influence external audiences.

Third, **coalition-based initiatives face inherent constraints**. In highly diverse stakeholder groups, equal weighting or the absence of weighting may be the only options compatible with long-term stability, even if they are analytically imperfect.

Finally, interviewees emphasized that **interpretation is unavoidable**. Data do not speak for themselves, and whether or not weighting is adopted, judgements about significance and performance will be made by someone. The strategic question is therefore not whether judgement exists, but who exercises it and under what governance conditions.

3 Conclusions & Recommendations

3.1 Observations

The report confirms that **decisions about weighting in sustainability indices are fundamentally strategic and governance-related**, not purely technical. Across both the literature and interviews, there is strong evidence that no single weighting approach is inherently superior; instead, each involves trade-offs between clarity, legitimacy, flexibility, and political feasibility.

From the literature, five broad approaches to weighting are identified—equal weighting, expert judgement, stakeholder consultation, statistical/data-driven approaches, and hybrid models. Each performs differently across dimensions such as transparency, resource requirements, susceptibility to bias, adaptability over time, and compatibility with multi-stakeholder governance. Importantly, **none of the comparable indices reviewed relies on a purely statistical approach**, and most combine deliberative and pragmatic considerations.

The interviews reinforce that **weighting is primarily adopted to enhance communication and external impact**. Organizations that apply weighting do so to reduce ambiguity, enable aggregation, and generate outputs (scores or rankings) that attract attention from policymakers and the media. Weighting also allows organizations to retain control over how performance is interpreted, rather than leaving aggregation and judgement to external actors.

Conversely, **organizations that deliberately avoid weighting emphasize objectives of alignment, learning, and inclusiveness**. In highly diverse, coalition-based initiatives, fixed weightings are often seen as destabilizing because they embed value judgements that may not be shared. Frameworks such as the Global Farm Metric and the Australian Agricultural Sustainability Framework therefore prioritize principles-based structures and contextual interpretation over comparability or ranking.

Both the literature and interviews highlight that weighting inevitably involves judgement, even when grounded in scientific or data-driven logic. As a result, weighted indices often face political and institutional pushback, particularly from actors that perform poorly. Maintaining credibility requires sustained investment in transparency, documentation, and governance processes. At the same time, avoiding weighting carries its own risks: unweighted frameworks may struggle to maintain relevance or may see their data re-interpreted externally in less transparent ways.

A consistent finding is that stakeholder engagement and sequencing are critical. Successful initiatives establish shared purpose and principles before addressing methodological choices such as weighting. Some organizations mitigate tensions through "soft aggregation", harmonizing indicators under thematic blocks or narratives rather than applying numerical weights.

Overall, the evidence suggests that for a mature, multi-stakeholder initiative such as the National Index on Agri-Food Performance, **the central question is not whether weighting is technically feasible**, **but whether it aligns with the Index's intended role, governance model, and tolerance for contestation**.

3.2 Key Questions and Recommendations

Based on the above, several questions could be considered by the Centre and its partners to support the on-going discussion on the case for and against introducing weighting to the Index. Below are examples informed by the insights from sections 1 and 2:

- What primary role should the Index play going forward: a communication and benchmarking tool, or a shared learning and alignment framework?
- Who should legitimately exercise judgement over the relative importance of sustainability dimensions—the Centre, an expert body, partners collectively, or end-users?
- How much variability in interpretation and prioritization are partners willing to accept in a coalition of over 130 organizations?
- To what extent should comparability over time be prioritized relative to adaptability as scientific knowledge and policy priorities evolve?
- What governance mechanisms would be required to review, revise, and defend weighting decisions over time?

A list of practical, governance-aware, and decision-oriented recommendations can also be developed to structure the way forward for the Centre:

Recommendation 1: Re-anchor any discussion of weighting in the Index's intended strategic role

Before considering methodological options, the Centre and its partners should explicitly reaffirm what the National Index is meant to do at this stage of its maturity. The literature and interviews show that weighting is most effective when an index's primary goal is external communication, benchmarking, or reputational signalling. Conversely, when objectives centre on alignment, learning, and inclusive dialogue among diverse stakeholders, weighting can undermine legitimacy. Clarifying whether the Index is expected to evolve toward a more interpretive and communicative instrument—or remain primarily a shared evidence base—should be treated as a prerequisite to any technical discussion of weighting.

Recommendation 2: Avoid premature numerical weighting by exploring intermediate or "soft aggregation" options

Both the literature review and interviews point to significant governance and political risks associated with early adoption of numerical weighting in multi-stakeholder initiatives. As an intermediate step, the Centre could explore options such as thematic aggregation, narrative synthesis within sustainability blocks, or principle-level interpretation that enhances clarity without embedding fixed quantitative value judgements. These approaches can improve usability and communication while preserving flexibility and stakeholder buy-in, and they may serve as a testing ground for assessing whether stronger aggregation is ultimately warranted.

Recommendation 3: Preserve transparency and interpretive flexibility by keeping disaggregated data fully accessible

Regardless of whether any form of aggregation is introduced, interviewees consistently emphasized the importance of maintaining open access to underlying indicator-level data. Aggregation should not replace disaggregated reporting, but complement it. Retaining parallel access to raw indicators allows partners and users to apply their own interpretations, reduces the risk of over-simplification, and protects the Index from criticism that it obscures trade-offs or masks uncertainty. This dual-layer design also helps mitigate concerns that weighting imposes a single hierarchy of values.

Recommendation 4: Align any future weighting approach with explicit governance structures and decision rights

The evidence shows that weighting decisions inevitably involve judgement and therefore require clearly defined ownership and accountability. If weighting is pursued in the future, the Centre should ensure that governance arrangements explicitly specify who sets weights, on what basis, through which consultative processes, and how disagreements are resolved. This may include defining the role of expert panels, partner consultations, or review cycles. Without such clarity, weighting risks being perceived as opaque or arbitrary, particularly within a large coalition.

Recommendation 5: Design any weighting framework to be adaptable and reversible over time

Comparable indices illustrate that sustainability priorities, data availability, and scientific understanding evolve. At the same time, frequent methodological changes can undermine credibility and comparability over time. The Centre should therefore favour approaches that balance stability with adaptability—such as review cycles or optional interpretive layers—rather than fixed, inflexible weightings. Designing for reversibility reduces the risk of locking the Index into value judgements that may become contested or outdated as the initiative matures.

Appendix A: List of Comparable Organizations

Organizations have been identified based on criteria adapted from the National Index's global context analysis, which assessed alignment with six leading global sustainability standards and indices (Centre for Agri-Food Benchmarking, 2023, p. 9). The following criteria guided the selection of comparable organizations for this study:

- Focus on agri-food or food systems sustainability, ensuring relevance to the Index's scope and subject matter
- Use of a multi-indicator framework organized across sustainability dimensions (e.g., environmental, social, economic, governance)
- Documented experience with weighting decisions, whether implementing differential weighting or explicitly choosing equal weighting
- Transparent and publicly available methodology documentation that describes the weighting approach and its rationale
- Multi-stakeholder governance structure or consultation process, reflecting the coalition-based nature of the National Index
- Global influence or recognition in defining best practices with respect to sustainability measurement and disclosure

See Table A.1 for an overview of Selected Comparable Organizations.

World Benchmarking Alliance (Food and Agriculture Benchmark)

The World Benchmarking Alliance assesses companies across the food and agriculture value chain using indicators organized into four measurement areas: governance and strategy, environment, nutrition, and social inclusion (World Benchmarking Alliance, 2022, p. 5). The three main measurement areas of environment, nutrition, and social inclusion carry equal weighting of 30% each, with governance receiving 10%, based on the rationale that these areas are considered equally important for food systems transformation (World Benchmarking Alliance, 2022, p. 11).

Food and Agriculture Organization of the United Nations (SAFA Guidelines)

FAO's Sustainability Assessment of Food and Agriculture systems offers a holistic framework encompassing sustainable cropping, livestock husbandry, fisheries, aquaculture, and forestry production, as well as post-harvest, processing, distribution, and marketing (Centre for Agri-Food Benchmarking, 2023, p. 106). SAFA applies equal weighting across sub-themes but uses a hierarchy within the environmental dimension that assigns different weights based on indicator type: performance indicators receive the most weight, practice-based indicators receive moderate weight, and target-based indicators receive the lowest weight (FAO, 2014, pp. 60, 63).

Economist Impact (Food Sustainability Index)

The Food Sustainability Index (FSI) evaluates food sustainability across 78 countries using indicators organized into three primary categories: food loss and waste, sustainable agriculture, and nutritional challenges (Economist Impact, 2021, p. 4). The model provides two weighting options: expert-assigned weights (the default setting, based on extensive discussions among researchers and advisory board members) and uniform weights that assume equal importance for all categories (Economist Impact, 2021, p. 7).

Global Farm Metric

The Global Farm Metric (GFM) is a framework designed to assess farm-level sustainability by integrating social, environmental, and economic dimensions into a unified structure (Global Farm Metric, 2025a). The framework is organized categories linked to a stated sustainability outcome, with the explicit recognition that these categories function as interdependent components rather than discrete measurement areas (Global Farm Metric, 2025b). Notably, the GFM does not prescribe specific weightings for its categories; instead, the framework positions its outcomes as shared goals that can be adapted according to local context and stakeholder values (Global Farm Metric, 2025c). This design reflects an acknowledgement within the framework's documentation that sustainability assessment inherently involves value-based judgements that differ across regions and farming systems (Global Farm Metric, 2025a). By avoiding fixed weightings, the GFM aims to function as a common reference point for aligning existing sustainability initiatives rather than replacing them with a single standardized scoring system (Global Farm Metric, 2025c).

Yale Center for Environmental Law and Policy (Environmental Performance Index)

The Environmental Performance Index (EPI) ranks 180 countries on environmental performance using 58 indicators organized across 11 issue categories and three policy objectives: ecosystem vitality, environmental health, and climate change (Block et al., 2024, p. 3). The EPI employs a hierarchical, expert-determined weighting structure in which each policy objective receives a distinct share of the overall score — 45% for ecosystem vitality, 25% for environmental health, and 30% for climate change — with weights cascading through issue categories and individual indicators within each objective (Block et al., 2024, pp. 3–4). These weights are set by the EPI research team rather than derived statistically, and they have been revised between editions: the 2022 iteration, for example, allocated 42% to ecosystem vitality, 20% to environmental health, and 38% to climate change (Wolf et al., 2022, p. 3). This practice of periodic recalibration demonstrates how expert judgment can be applied within a structured hierarchy while retaining the flexibility to adjust weights as scientific understanding and policy priorities evolve.

National Farmers' Federation (Australian Agricultural Sustainability Framework)

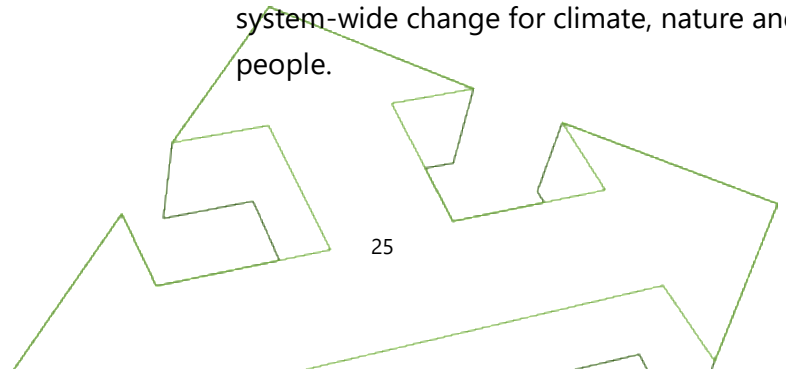
The Australian Agricultural Sustainability Framework (AASF) is a principles-based, whole-of-industry framework developed by the National Farmers' Federation and the Australian Farm Institute to provide a unifying national platform for communicating agricultural sustainability across Australia's diverse production systems (McRobert, Maroccia & Denton, 2025, pp. 4–5). Version 5 of the AASF is structured around three themes — environmental stewardship, people, animals and community, and economic resilience — under which 19 non-hierarchical principles and 53 criteria describe desired sustainability outcomes and the conditions required to achieve them (McRobert, Maroccia & Denton, 2025, pp. 7, 21–23).

The AASF does not prescribe specific weightings, scores, or fixed indicators; during drafting of Version 5, the developers found that key stakeholders held divergent expectations regarding the purpose and application of indicators, and concluded that embedding a fixed set prematurely would not serve the framework's communication function (McRobert, Maroccia & Denton, 2025, p. 11). Instead, the AASF positions itself as an intermediary in the sustainability communication landscape — a shared reference point for aligning sector-specific frameworks rather than a scoring or ranking system (McRobert, Maroccia & Denton, 2025, pp. 5, 8).

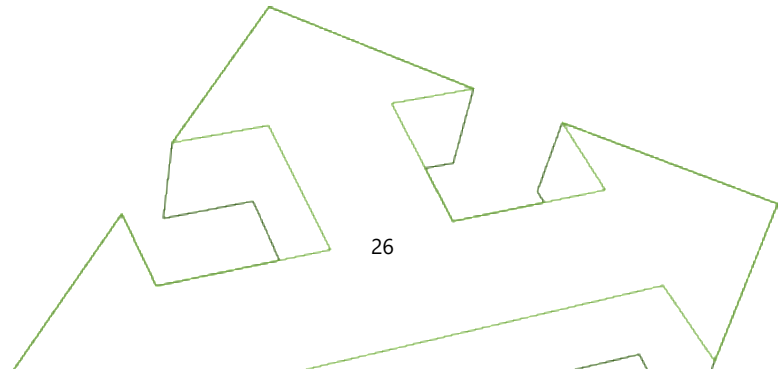
This approach has notable parallels with the Global Farm Metric's avoidance of fixed weightings, and the AASF documentation explicitly identifies both the Global Farm Metric indicators project and the Canadian National Index on Agri-Food Performance as complementary initiatives whose progress may inform future indicator development (McRobert, Maroccia & Denton, 2025, p. 11).

Table A.1 – Overview of Selected Comparable Organizations

Organizations	Primary Audience	Mission / Purpose
World Benchmarking Alliance (Food and Agriculture Benchmark)	Companies (especially large "keystone" food and agriculture companies), as well as investors, governments, civil society and other stakeholders.	To assess, rank and drive accountability of major food and agriculture companies on sustainability performance, and stimulate transformation toward healthy, inclusive and sustainable food systems.
Food and Agriculture Organization of the United Nations (SAFA Guidelines)	Organizations across the food and agriculture value chain (farms, companies, supply-chain actors, analysts).	To provide an international reference framework and common language for assessing sustainability in food and agriculture, enabling standardized, transparent and comparable evaluations across environmental, social, economic and governance dimensions.
Economist Impact (Food Sustainability Index)	Policymakers, researchers, industry stakeholders, students and citizens.	To analyze and compare national food system sustainability performance, highlight best practices, and inform decision-making and public understanding across food loss/waste, sustainable agriculture and nutrition.
Global Farm Metric	Farmers (primary), plus policymakers, businesses, financiers and advisers.	To create a holistic, farmer-centered framework and common language to measure, understand and improve whole-farm sustainability, driving system-wide change for climate, nature and people.



Yale Center for Environmental Law and Policy (Environmental Performance Index)	Policymakers (primary), plus researchers, NGOs, investors and the public.	To provide a data-driven global scorecard that ranks countries and supports evidence-based policymaking, enabling governments to track progress, identify gaps and improve environmental performance
National Farmers' Federation (Australian Agricultural Sustainability Framework)	Supply chain actors, markets, investors, policymakers, and the broader community (with benefits for farmers and industry).	To communicate and demonstrate the sustainability of Australian agriculture, provide a common language and national framework, and support market access, transparency and alignment with ESG expectations



Appendix B: Interview Guide

CONTEXT

About the National Index on Agri-Food Performance

The National Index on Agri-Food Performance is a Canadian multi-stakeholder initiative that tracks the sustainability of Canada's agriculture and agri-food sector. Launched in 2023 by the Centre for Agri-Food Benchmarking and supported by a coalition of over 130 public and private partners, the Index currently comprises 20 indicators organized across four sustainability blocks: environment, food integrity, economic, and societal well-being. Each indicator is supported by one or more metrics drawn primarily from Government of Canada data sources.

The Index does not currently score, rank, or aggregate performance across indicators. It serves as a consolidated, data-driven evidence base to support sector-wide dialogue, decision-making, and alignment among partners.

Purpose of this research

As the Index matures beyond its pilot phase, the Centre and its partners are considering whether and how to introduce weighting into the Index's structure. Groupe AGÉCO has been engaged to prepare a research paper that examines common weighting methodologies, reviews the experience of comparable initiatives, and identifies the governance considerations and trade-offs involved.

This interview is part of that research. We are speaking with a small number of organizations that operate sustainability indices or frameworks relevant to food and agriculture, each of which has navigated decisions about weighting, normalization, or aggregation — or has deliberately chosen not to pursue them.

How your input will be used

Your insights will inform an internal discussion paper for the Centre and its partners. The paper is intended to support evidence-based decision-making; it does not recommend a specific course of action.

Organization:

Name:

Title:

Date:

1. **What is your role in your organization?**

2. **How has your organization approached the challenge of making diverse indicators comparable — for example, through normalization, scoring scales, or other standardization methods?**
    a. What trade-offs have you encountered?

3. **What factors or considerations led your organization to adopt — or deliberately not adopt — a weighting approach?**
    a. What alternatives were considered, and at what stage of your framework's development did this decision arise?

4. **What have been the most significant challenges your organization has faced regarding its weighting approach — or its decision not to weight?**
    a. How have you responded to these?

5. **How did your organization engage stakeholders in developing or validating the weighting methodology (or the decision not to weight)?**
    a. What governance structures or processes does your organization use to review, maintain, or revise weighting decisions over time?
    b. What challenges arose in achieving consensus?

6. **How does your organization communicate its weighting rationale — or its decision not to weight — to different audiences (e.g., policymakers, industry, the public, technical reviewers)?**
    a. What has been most effective, and what has proven difficult to convey?

7. **What advice would you offer to another multi-stakeholder initiative that is considering whether and how to introduce weighting into a sustainability index?**
    a. If you were designing your framework from scratch today, is there anything you would sequence differently?
    b. What conditions or milestones do you think need to be in place before an index is ready to take on these questions?

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