CAPITALS COALITION®

Governance for Valuation

Part of the Integrated Decision-Making Framework

Technical guidance on **how to build confidence in valuation**

July 2025

Request to share reflections and suggestions

The Governance for Valuation - Technical guidance on how to build confidence in valuation is part of the *Integrated Decision-Making Framework* developed by the Capitals Coalition and its partners. This groundbreaking framework supports all types of organizations (from business to finance and government) to integrate the value of natural, social, human, and produced capitals into decision-making. The *Integrated Decision-Making Framework* consists of the *Capitals Protocol* and the *Governance for Valuation.*

The Governance for Valuation is based on extensive work and testing by the Capitals Coalition network and other organizations. If you have comments or reflections, or would like help in applying the Governance for Valuation, please contact info@capitalscoalition.org.

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Executive Summary

Decision-makers in all organizations need complete and consistent information to make decisions that build competitiveness and resilience. Information that can be trusted and that helps them to understand all relevant impacts of their decisions.

However, often direct financial impacts are prioritized in decision-making, while other impacts - equally real and tangible - such as those related to nature, people, and society are not considered to the same extent. To date, there is little available guidance for decision-makers on what constitutes "good enough" information. And therefore, there is often no or insufficient confidence in how impacts and dependencies on capitals are valued.

This is the gap that **Governance for Valuation - Technical guidance on how to build confidence in valuation** seeks to fill, by promoting transparency within each of the major choices made in generating capitals information. Such transparency enables decision-makers to evaluate the suitability of capitals information and increase confidence that the resulting information effectively serves their objective. Only then can decisions truly create long-term value and resilience.

The Governance for Valuation is composed of three main sections:

- **Transparency Requirements** – Before the suitability of capitals information for a particular decision can be ascertained, it is necessary to understand what is being valued and on what basis. The Transparency Requirements provide a structure for preparers of capital.

- **Confidence Criteria** – The Confidence Criteria are the heart of the Governance for Valuation approach because they allow decision-makers to assess whether capitals information they receive is suitable for their purpose. They are structured as a series of decision trees, all of which must be reviewed to assess suitability and confidence.

- **Value Notes** – To conclude the approach, Governance Valuation proposes analogous notes to those on Financial Statements, Value Notes. These briefly present any pertinent information on how figures were calculated, how they should be interpreted, and any caveats to bear in mind, with the objective to empower the decision-making.

In all these sections, it is important to consider the extent to which a business is responsible for an impact within the system. **Attribution scopes** are included to enable organizations and businesses to identify which specific activities or processes drive changes in capitals, providing the foundation for informed, holistic decision-making. In essence, the Governance for Valuation provides a robust governance structure to test the confidence and suitability of all valuations of impacts and dependencies.

Introduction

Purpose of this document

How can a decision-maker be confident in judging whether capitals information is fit for purpose? What information is required to assess this?

Financial accounting has a long-established foundation of rules, standards and practices that give decision-makers confidence in the number they use. Accounting for natural, social, and human capital is a more nascent field and while there are some generally accepted guidelines (including the Capitals Protocol, UK Treasury Green Book, and ISO14054 on natural capital accounting) these leave much more flexibility in how capitals information is generated. This flexibility has, to date, been intentional and important because a diversity of perspectives exist on the most appropriate methods to value impacts and because the range of applications for capitals information is so varied. This diversity, however, has also led to a lack of comparability across different approaches, confusion, and inefficiency.

Governance for Valuation is developed to increase transparency and consistency in valuation. It provides the technical guidance needed on a common structure to build confidence in valuation and ascertain if provided capitals information is suitable for the intended use and given the current state of the market.

To provide decision-makers with actionable insights into the suitability and confidence of capitals information, this document is:

- Practical, to clearly link the process of conducting capitals assessments and integrating the value of all four capitals in decision-making.
- Pragmatic, to ensure these choices are made transparent by including information that is critical to understanding confidence and fit for purpose with brevity and precision.
- Flexible, to maintain applicability in many contexts by focusing on the characteristics of a decision rather than detailing bespoke criteria.

The Governance for Valuation can be used in conjunction with any reporting standard and applies to assessments for both public disclosure and private use. In many instances, businesses will generate and use capitals information internally without public disclosure. In other instances, they may choose to report externally, perhaps aligning with a mandatory or voluntary standard. The Value Notes provide a means of structuring and communicating suitability and confidence in capitals information.

Together through the Integrated Decision-Making Framework, the Governance for Valuation and the Capitals Protocol offer a powerful foundation for more informed, balanced and confident decision-making.

Intended audiences

The Integrated Decision-Making Framework and its technical guidance documents, such as this one, are developed to support three types of users:

- **Decision-makers** – Those responsible for making decisions in all types of organizations (including business, finance, and government). If the Capitals Protocol has been followed in preparing capitals information, and the Governance for Valuation is used to ensure suitability of the valuation approach, then the decision-maker can be confident that a robust process has been followed for the stated objective.

- **Practitioners** – Technical knowledge experts supporting decision-makers. For practitioners, the Capitals Protocol provides detailed technical guidance on how to conduct an integrated assessment and measure and value impacts and dependencies on four capitals. The Transparency Requirements and Confidence Criteria from Governance for Valuation ensures the valuation approach is fit-for purpose and technically robust.

- **Regulators** – Supporters of decision-making and governance in business and institutions. An integrated approach, as set out in the Capitals Protocol, can contribute to smart regulation by providing a robust process to look at the interdependence of issues and a framework by which to develop integrated policy. By applying a structured governance across sectors and markets, Governance for Valuation seeks to assist the delivery of consistent outputs to improve confidence and reliability.

For a high-level introduction on the purpose, structure, and available technical guidance that the Integrated Decision-Making Framework provides, the Primer on Integrated Decision-Making is the best starting point.

Structure of the document

Following this introduction, this document presents the need for integrated decision-making and what good and suitable valuation entails. The aim of assessment and suitability is also explained and a mapping of how the Governance for Valuation together with the Capitals Protocol strengthen the landscape is provided. Following this, the remainder of the document sets out three separate sections needed to ensure that the information gathered is relevant and useful for decision-making to increase transparency and consistency in valuation: Transparency Requirements, Confidence Criteria, and Value Notes. Guidance on Attribution Scopes is included in Annex I.

Transparency Requirements – Before the suitability of capitals information for a particular decision can be ascertained, it is necessary to understand what is being valued and on what basis. The Transparency Requirements provide a structure for preparers of capitals information to clearly articulate the key methodological choices that underpin it.

Confidence Criteria – They are the heart of the Governance for Valuation as they allow decision-makers to assess whether capitals information they receive is suitable for their purpose. The Confidence Criteria are structured as a series of decision trees. It is necessary to review them all to assess suitability and confidence.

Value Notes – They are analogous to notes to financial statements, which briefly present any pertinent information on how figures were calculated, how they should be interpreted, and any caveats to bear in mind, with the objective to empower the decision-maker.

Attribution Scopes - In implementing the Transparency Requirements and Confidence Criteria, it is important to recognize the extent to which the organization is responsible for impacts and dependencies on capitals. To scope this, attribution is key.

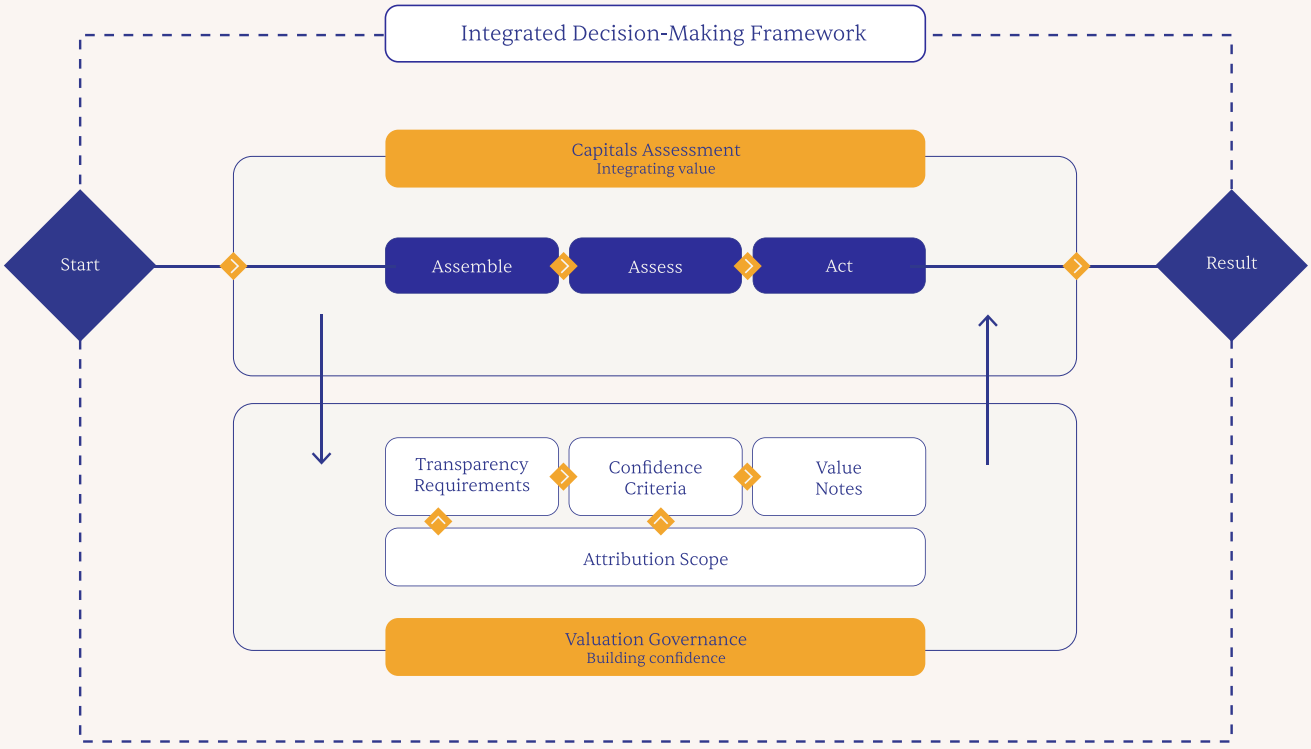
In Annex II, a hypothetical example is provided to illustrate one application of the approach for impacts, and both Annexes II and III provide explainers to help guide users and preparers on the types of information they should provide.

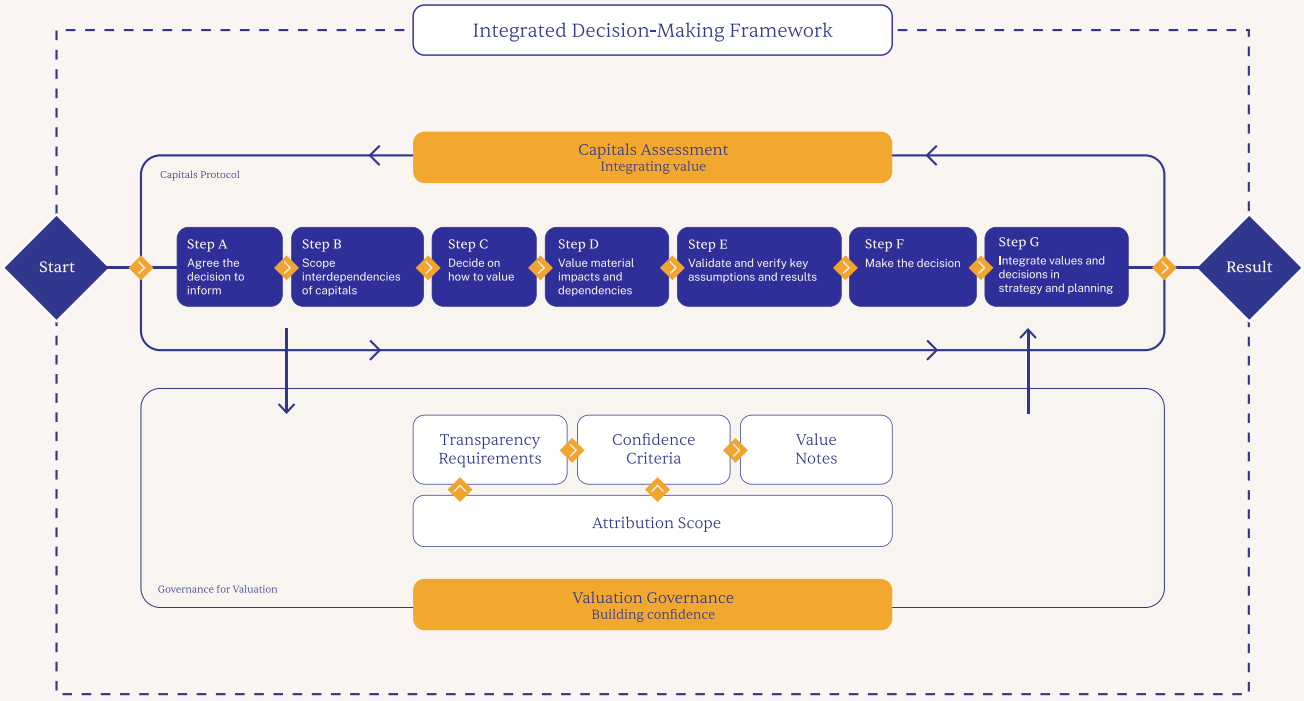
Templates are available to help preparers and decision makers to take on the assessment.

Integrated Decision-Making Framework

The Integrated Decision-Making Framework is made up of the Capitals Protocol and the Governance for Valuation. Both are technical documents with distinct roles to support practitioners that prepare capitals information for decision-makers and regulators.

How these two documents combine is visualized below, building from a simple model in figure 1 to more detailed expressions in figures 2 and 3.





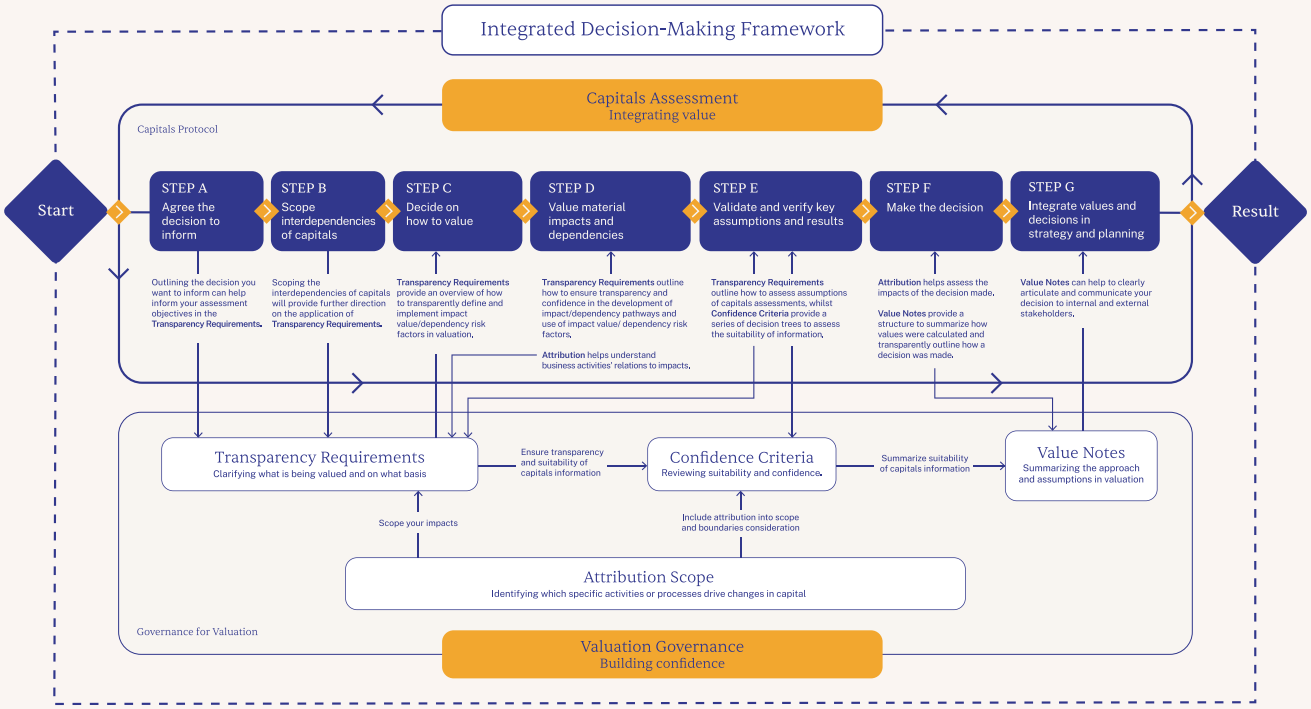


Figure 1,2,3. A visual representation of how the Capitals Protocol relates to the Governance for Valuation

Context

The need for integrated decision-making

In today's complex realities, businesses require greater information on all aspects of their operations and performance to effectively manage their risks and identify new opportunities. A focus on (short-term) financial performance is not sufficient. Instead, the value of nature and people to an organization and to society must be made visible and integrated in decision-making of private and public actors.

Moving from one capital to integrate all four capitals (natural, human, social, and produced) into decision-making is a significant leap forward, one that calls for a systemic conceptual foundation and practical guidance for action.

Integrated decision-making is naturally inclusive because the systems thinking that underpins it requires attention to both the views as well as potential roles of relevant stakeholders, wherever on earth, and as well now or in the future. The beliefs and views of stakeholders must be included, even if these take a different perspective on value compared to the organization taking the decision. This also means that integrated decision-making requires consultation and dialogue with stakeholders, to include their views and ascertain alignment and support for decisions. Such dialogue includes business, finance, government, and (local) communities across relevant value chains.

To gain an understanding of a broad range of insights and experiences, a variety of stakeholder perspectives should be incorporated into the valuation process (see Box 1). The incorporation of various stakeholders' views helps to reflect the complexity of real-world conditions, leading to more accurate assessments and better-informed decisions. Research initiated by the Value Commission and developed with the support of Social Value International has explored the practice of including various stakeholder perspectives in the process of impact valuation – for example, the process to identify and measure the relative importance or worth of the impact experienced by individuals. This research, through interviews with practitioners from different global contexts, led to the discussion paper "Valuing What Matters: pluralism, power and business decision-making"[3]. The paper distills some of the key issues and complexities associated with incorporating pluriform values, whilst also exploring aspects such as how to decide what to value, information flow between affected stakeholders and decision-makers, and how to improve the process of valuing impacts together with stakeholders.

[3] Discussion paper by the Value Commission: Valuing what matters: pluralism, power, and business decision-making.

Box 1: Conclusions from Valuing What Matters Paper

Overall, this discussion paper explores inclusive and transparent approaches to valuing impacts and highlights five key findings: (1) imbalanced power dynamics and trust deficits may hinder community participation; (2) organizations with a focus on social impact engage more inclusively; (3) monetary valuation is useful, but risks oversimplification; (4) transparency and feedback loops build trust; and (5) involving affected stakeholders enhances data reliability and holistic decision-making. The paper emphasizes that meaningful valuation starts with dialogue and aims to foster best practices through practitioner insights and broader engagement.

Findings 1, 2, and 5 highlight the significance of trust and power imbalances in the decision-making process. These findings are aligned with the Transparency Requirements on which the Confidence Criteria and Value Notes are subsequently compiled. Finding 3 addresses how the risk of oversimplification of a decision by monetary valuation could be mitigated through the consideration of a wide array of affected stakeholder views. Finding 5 links to the level of specificity detailed in the Transparency Requirements and judged as "good enough" for the related decision in the Confidence Criteria.

Box 2: Stakeholders and Stakeholder Engagement

Stakeholders are individuals or entities with an interest in business decisions and processes. This broad group includes affected communities, people who are representing (working for or identifying with) the communities that experience the impacts of decisions and are often underrepresented in decision-making. This includes but is not limited to Indigenous Peoples and local communities. Indigenous Peoples are inheritors and practitioners of unique cultures and ways of relating to people and the environment. The rights of indigenous peoples in international law and policy, containing minimum standards for the recognition, protection and promotion of these rights, are detailed in the UN Declaration on the Rights of Indigenous Peoples.[4]

Depending on the stakeholder group, stakeholders possess legal or moral entitlements that must be respected and their engagement in decision-making processes should be considered on a case-by-case basis. Value-chain workers are involved in production and distribution, and consumers and end-users are the final recipients of products or services. Business partners and investors have financial or strategic interests, and regulators and public administrations ensure compliance with standards. Civil society groups represent various societal interests. Within these groups, subgroups defined by age, gender, ethnicity, disability, cultural background, religion, and income add layers of diversity and complexity, requiring careful consideration to ensure inclusivity and address the needs of marginalized or vulnerable groups. A stakeholder mapping exercise will reveal the stakeholders relevant to your business activities.

Engaging stakeholders is crucial for maintaining social capital and a social license to operate. It ensures inclusivity, accurate understanding of impacts, and mitigates risks of decision-making through stakeholder consultation. Within the assessment process relevant stakeholder groups should be identified early and prioritized based on exposure, influence, and resilience. Continuous engagement enriches assessments and maintains trust. For more guidance, consult Social Value International's Principle 1 on involving stakeholders and TNFD's guidance on affected stakeholders. More detailed information and guidance can be found in the Capitals Protocol (see Box A.1. for guidance on considering stakeholders).

[4] See: https://www.ohchr.org/en/indigenous-peoples/un-declaration-rights-indigenous-peoples

What is ‘good’ valuation?

To deliver value, businesses depend on natural resources, a stable environment, people, and social cohesion, as well as finance and manufactured goods.

Businesses not only depend on these capitals for profitability, capitals also impact businesses both positively and negatively. Capitals-related impacts can affect a business's operations directly, such as through affecting the health of employees, or indirectly, such as through the loss of its license to operate, or via regulation. Businesses need to look beyond shareholder value to consider their broader contributions to society – and are increasingly encouraged or mandated to publish details on impacts, alongside dependency risks and opportunities. This has led to a growing consensus that businesses need information on their relationship with natural, social, and human capital, alongside traditional financial information, to become truly sustainable and make better-informed decisions.

Businesses are increasingly responding to this need, using capitals assessments to better understand different aspects of these relationships (see Table 1 for some examples). Alongside internal business processes, there is also a groundswell of reporting initiatives,[5] both mandatory and voluntary, responding to the demands of governments, financiers, and society more broadly for increased transparency around these relationships – and the risks or opportunities they pose.

While there is increasing consensus around what types of information are needed, for different decisions in different contexts and amidst the variety of options businesses have to generate capitals information, there is little guidance for decision-makers on what “good enough” looks like. This is the gap the Governance for Valuation seeks to fill.

Type of application	Examples of specific objectives
Evaluate impacts and dependencies and assess risks and opportunities	To understand key impacts and dependencies, and associated risks and opportunities to prioritize management actions.
	To identify and evaluate potential investment opportunities.
Estimate total / net impact values and commit to targets	To determine whether something is contributing towards net zero or net positive (e.g., nature positive, or water positive).
	To inform the setting of ambitious targets & actions.
	To establish an appropriate amount of ecological restoration and compensation.
	To determine the total holistic value of an asset / land holding (e.g. corporate social and environmental balance sheet).
Compare options and transform outcomes	To compare multiple options (e.g., investment options) to optimise between trade-offs between capitals and values and decide on a preferred option.
	To evaluate something to help obtain a permit / licence to operate.
	To prioritise items from a long list (e.g., high-risk sites / products / activities).
	To facilitate transformation as to the way companies and stakeholders operate.

[5] For example, the EU’s Corporate Sustainability Reporting Directive is mandatory for large companies, as are SEC disclosures in the US. The IFRS Foundation’s 2023 release of the IFRD S1 and S2 for the disclosure of sustainability-related and climate-related financial information respectively is effective for annual reporting periods beginning on or after 1 January 2024. Voluntary frameworks include the well-established Task Force on Climate-related Financial Disclosures, the Taskforce on Nature-related Financial Disclosures, and the Taskforce on Inequality and Social-related Financial Disclosures launched in 2024.

Internal and / or external communication and reporting	To generate a range of outputs informing internal and / or external stakeholders of the approach and results of the above applications.
	To prioritise or contextualise information for non-financial (sustainability) reporting.
	To report on the impact of a project or series of projects, e.g., to investors in the organisation's green, social or sustainability bonds.
	To help inform and / or educate staff internally to transform behaviours and inform strategy.

Table 1. Applications for capitals assessments

There are a great many choices required in designing and conducting a capitals assessment. These include the scope (e.g., what should the assessment focus on?), the analytical approach (e.g., how much granularity is required?), selection of data (e.g., are data available or do they need to be collected?), and judgments around calculation (e.g., how to weigh relative importance of impacts on future populations versus today's?), to name a few. Each of these methodology choices can have a significant influence on the confidence that can be placed in assessment results and their suitability for different decision-making purposes. Governance for Valuation seeks to ensure that each assessment provides the necessary details on its underpinning information and assumptions to enable the original intended user and any potential subsequent users to assess suitability.

An assessment of suitability[6] must be guided by reviewing how capitals information was generated, while also considering the burden of proof needed for the relevant decision. For repeated common applications, a common baseline approach is emergent in the form of IFVI impact accounting methodologies,[7] which are a public good and independently governed. While these methodologies are expected to grow more robust and become established over time, alternative approaches to a standard baseline will continue to be necessary to complement and supplement them.

Figure 5. Suitability depends on the approach to generate capitals information and its intended use

[6] Suitability can be considered as a scale from low to high confidence (Figure 5).
[7] https://ifvi.org/methodology/

Figure 6 illustrates the scale of impacts across different broad activities in a value chain for a leather bag. The two examples show results from two different approaches. Example 1 is based principally on data collected from the value chain of interest – it is highly specific to the case in question. Example 2 depicts the same impacts across the value chain estimated based on global industry averages – it has a low level of specificity to the leather bag manufacturer's value chain. If the objective of the assessment is to report the approximate impacts of leather bag production, then example 1 will likely give more accurate results, but example 2 is sufficient to give a high-level view. If the objective is to compare two leather bags produced using different sources of leather and different processing and manufacturing techniques, then only example 1 is suitable.

This illustration relates to impacts, but the same principals apply for dependencies – the specificity of the data affects the relevance to your organization's actual dependencies. Not only the specificity of the data to the activities in question affect suitability and confidence – this is explored further in the Transparency Requirements and Confidence Criteria.

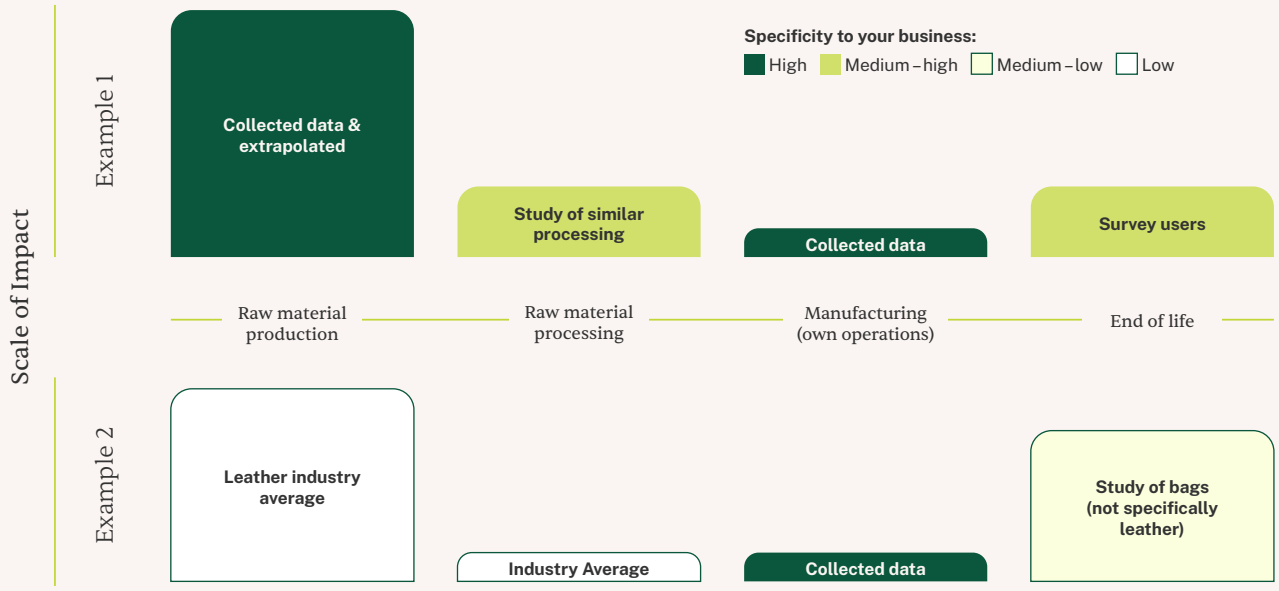


Figure 6. Two approaches to measuring the impacts of leather bag manufacturing

This document seeks to bring transparency to each of the major choices made in generating capitals information and help decision-makers judge its suitability and their confidence given their objective. In addition, it contributes to the growing alignment of methodologies, catering to the wide variety of contexts that decision-makers face.

The aim of assessment and suitability

Impact and dependency pathways

Impact is a human-centric concept in this document. Building on the work of the Capitals Protocol (and its predecessors the Natural Capital Protocol and Social & Human Capital Protocol), impact is defined as a positive or negative change in one or more dimensions of well-being, following a change in capitals (stock or flow), as a result of human activities.

Impact pathways describe how a particular activity (impact driver) results in changes in capitals and how these changes in capitals lead to impacts on people and businesses (the impact end points). Impacts can be primary (e.g., health issues as a result of breathing polluted air) or secondary (e.g., loss of agricultural output resulting from reduced soil quality following acid rain).

Dependencies refer to the importance of natural, human, and social capital inputs to a business (e.g., water, timber, or human resources) and the importance of a specific operating environment (e.g., predictable climate, acceptable level of flood risk, social cohesion). A change in a natural, human, or social capital can endanger or improve the quantity or quality of resources and the state of the operating environment – it is the implications of these changes (dependency endpoints) that are valued in a capitals assessment. A dependency pathway, like an impact pathway, depicts a causal relationship, in this case between changes in a capital and a valued implication for a business (see Step D of the Capitals Protocol for more information on impact and dependency pathways).

Figure 7 provides a highly simplified impact pathway for air pollution, and Figure 8 a simplified dependency pathway for pollination. Figure 10 in Transparency Requirements provides a more detailed version of the air pollution impact pathway, showing how such a pathway can inform methodology decisions in the development of impact value factors[8] for a capitals assessment.

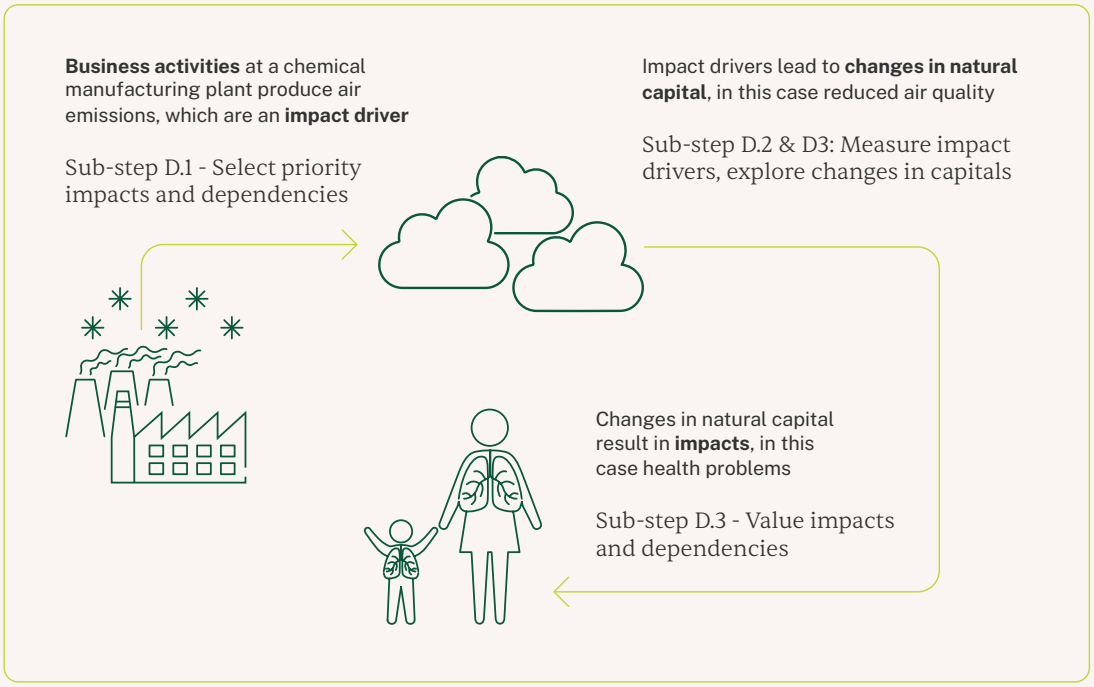


Figure 7. Simplified impact pathway for air pollution, highlighting the specific action denoted in the Capitals Protocol

(source: adapted from the Natural Capital Protocol)

[8] An impact value factor is an expression of the relative importance, worth, or usefulness of changes in capitals to people.

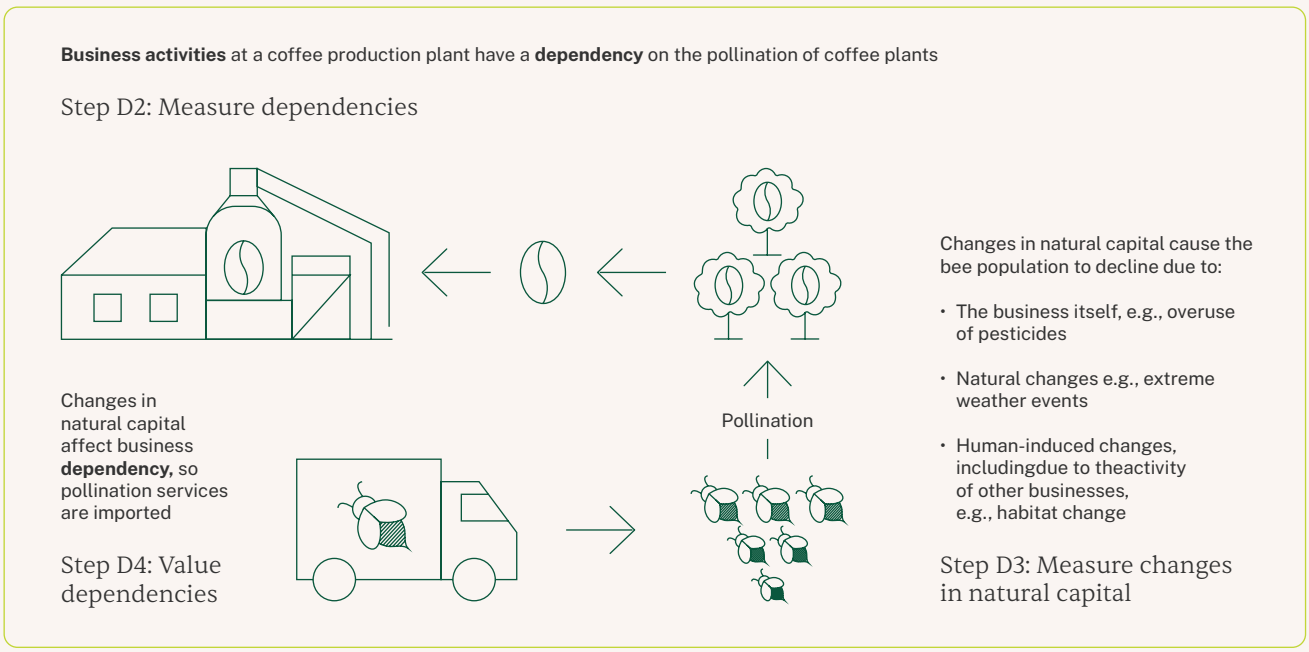


Figure 8 Simplified dependency pathway for pollination
(source: adapted from the Natural Capital Protocol)

In some instances, impact and dependency pathways are interrelated which also means that business's activities directly or indirectly can reinforce or undermine their own dependencies.

For example, if air pollution created by a business affects workers' health and results in added costs associated with reduced productivity, time off work, or loss of license to operate, or if use of pesticides results in declining bee populations and reduced pollination and productivity on a farm, in such cases the impact pathway can also depict dependencies.

Capitals assessments can use a variety of metrics to communicate the significance of an impact or dependency – its value. Qualitative, quantitative, and monetary values can be used depending on the specifics of the objective (see Capitals Protocol Step C2 for detailed guidance). Governance of Valuation applies to all values. Monetary valuation has some additional requirements when it comes to understanding suitability and it features explicitly in parts of the approach of the Governance for Valuation, but the approach outlined in this document can equally be used for qualitative and quantitative metrics.

In this regard, two types of factors are used throughout this document to place value on changes in capitals: 'impact value' factors and 'dependency risk' factors.

Impact value and dependency risk factors

An impact value factor is an expression of the relative importance, worth, or usefulness of changes in capitals to people.

Impact value factors describe the direct and indirect changes in well-being people experience with a change in one or more capitals as a result of an activity. They are typically expressed as impact per unit input (e.g., freshwater extraction) or output (e.g., gross value added) and are specific to a given context (e.g., change in well-being associated with incidents of chronic bronchitis per kg of particulate air emissions in a suburban British town, or additional lifetime earnings per person trained in a specific skill in a specific country). Value factors represent an incremental impact, allowing them to be scaled based on the extent of a business's activities. Impact value factors reflect a specific impact pathway and can be expressed in

different ways. Quantitative metrics include monetary (e.g., lost economic output, willingness to pay for an increase in well-being) and non-monetary units (e.g., an index of life satisfaction, disability-adjusted life years). For example, the UK Government publishes recommended damage cost values for different air pollutants (the average for NOx is £8,148 per tonne emitted) which is built up from estimates of impacts on human health, the economy, and the environment. Qualitative assessments would use more descriptive terminology of impacts experienced by different individuals or groups.

While impact value factors can be developed for use by different businesses because a change in, for example, water availability to a certain population is the same no matter which business caused the change, the same is not true of dependencies because dependency values are specific to a business – they represent the importance of a capital input or state to that business.

A dependency risk factor is an expression of the potential exposure, sensitivity, or vulnerability of an organization's performance to changes in the capital(s) on which it depends.

Dependency risk factors can be developed for use by multiple businesses. Examples of dependency risk factors are the likelihood that floods of a given severity will increase in frequency by a given amount, or the likelihood of political and social unrest over a certain period of time.

The Governance for Valuation does not provide specific impact value factors or dependency risk factors for use in assessment, but facilitates a process to develop and/or adapt these factors to help inform decisions. The choice of factors is dictated by the (desired) scope of an assessment, availability of data, and expert judgment on the appropriateness of selection, among other considerations. Various online databases and a wide array of scientific literature provide a rich source of information.[9] Some of these are summarized in Table 2.[10]

[9] For further information on impact value factors, please refer to the Value Factor website at: https://capitalscoalition.org/capitals-approach/value-factors/
[10] Note: This list is not exhaustive and should not be interpreted as an endorsement. The Capitals Coalition have not conducted a formal review or quality assessment of these sources.

Impacts/ dependencies	Dataset	Organization	Coverage	Geographical scope
Impacts	IFVI Value factors	International Foundation for Valuing Impacts (IFVI)[11]	Natural capital Human capital	Global coverage data by country[12]
	GIST Value factors	GIST Impact	Natural capital Human capital Social capital Financial capital	Global coverage, data by country
	Wifor Value factors	Wifor Institute	Natural capital Human capital	Global coverage, data by country
	eQALY Value factors	Valuing Impact	Natural capital Human capital Social capital	Global coverage, data by country
	Environmental Prices Handbook 2024; Dutch Environmental Prices Handbook 2023	CEDelft	Natural capital	European Union The Netherlands
	Handbook Value Factors – Methodological Convention	UBA - German Environment Agency	Natural capital	Germany
Dependencies	ENCORE	UNEP-WCMC	Natural capital	Global
	WWF Water Risk Filter	WWF	Natural capital	Global
	WWF Biodiversity Risk Filter	WWF	Natural capital	Global
	Swiss Re Biodiversity and Ecosystem Services Index	Swiss Re Institute	Natural capital	Global

Table 2. Non-exhaustive overview of providers of impact value/ dependency risk factors

[11] IFVI's value factors encompass the development of value factors of the Value Balancing Alliance and PwC.
[12] Note: In its current form, the value factors are intended to represent a within-country analysis not between countries but it is available on a country-by-country basis

How the Integrated Decision-Making Framework strengthens the landscape

Trends in the landscape

The creation of sustainable taxonomies and corporate disclosure standards, including the ISSB global baseline for investor-facing sustainability disclosure, marks the entry of policy and regulation on how the private sector accounts for impact. At the same time, voluntary initiatives have continued to emerge to drive the integration of sustainability issues not just in disclosures but in business strategy and management itself. Whilst these cover a wide range of topics and areas, including dependencies, impacts, risks, and opportunities (DIRO), they often only focus on single issues or sectors. Some examples on single issues include e.g., among many others, the Natural Capital Protocol, Task Force on Nature-related Financial Disclosure's LEAP Model, Social and Human Capital Protocol, and Social Value International's Standards. Single sectors examples include e.g. UNEP FI's holistic impact methodology, deployed under the Principles for Responsible Banking, and the IFRS/SASB Standards, consisting of a set of 77 industry-based disclosures about sustainability-related risks and opportunities.

Movements towards an integrated approach

Significant efforts have been made towards a more integrated approach, where all the relevant capitals to an organization's business model are measured and valued through applying systems thinking and assessing the inter-connections between them.

In the corporate sphere there have, to date, been three major frameworks for capitals management; these are the IFRS's Integrated Thinking Principles and Integrated Reporting Framework, and the Integrated Performance Management framework, jointly developed by AICPA & CIMA and WBCSD in 2023.

The Integrated Decision-Making Framework now produced by the Capitals Coalition is complementary to all these and focuses on the internal process that can be followed to integrate sustainability into decision-making via a capitals approach (see figure 4). These four frameworks are together supported by other applications, piloting, tools and resources, including the International Foundation for Valuing Impacts (IFVI) methodology.

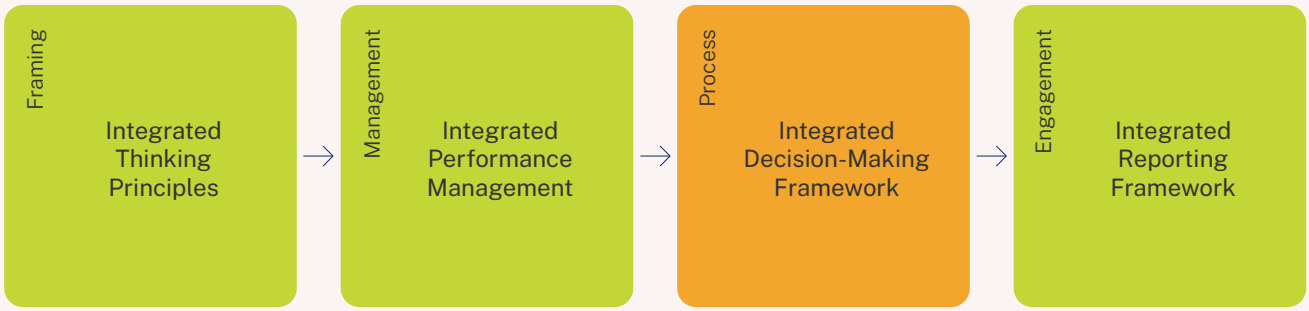
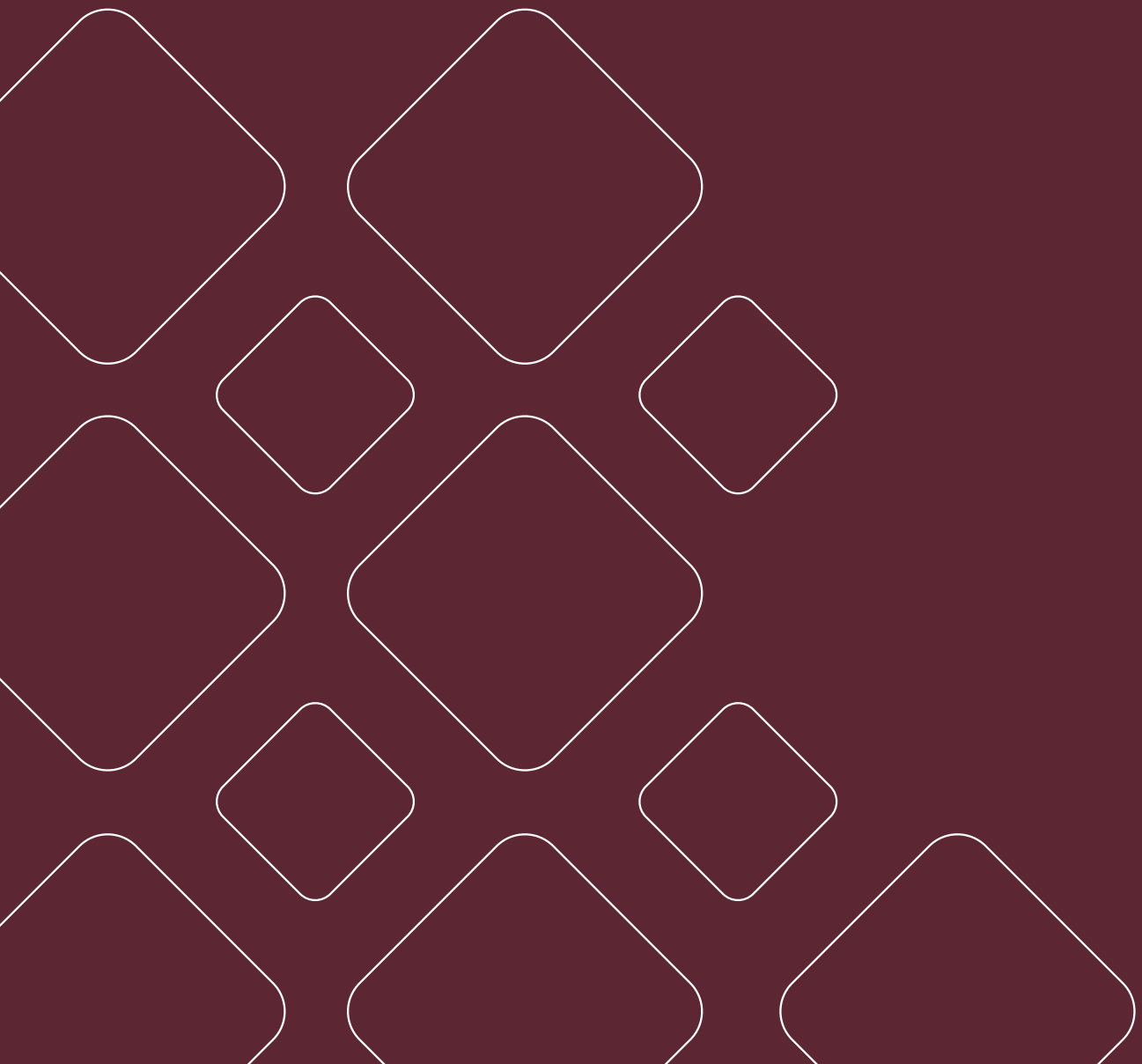


Figure 4. How the Integrated Decision-Making Framework strengthens the landscape

A common structure to build confidence in valuation



Conducting capitals assessments: Transparency Requirements

Objective: To ensure transparency of how capitals information is generated.

User: Those developing impact value or dependency risk factors and conducting capitals assessments.

Output: Transparency Report accompanying capitals information.

Audience: Those assessing the suitability of capitals information for a given decision-making objective.

Before the suitability of capitals information for a particular decision can be ascertained, it is necessary to understand what is being valued and on what basis.

The Transparency Requirements provide the structure for those developing capitals information to clearly articulate the key methodological choices that underpin it, and they provide the guidance to concisely and precisely articulate critical information in a consistent format. This supports decision-makers to appropriately use information in their assessment of suitability using the Confidence Criteria.

To encourage brevity, the Transparency Requirements are structured in two types of tables which map to the key steps of completing an assessment. Some information needs for impacts and dependencies are different, so they are considered separately. Table A considers the objective, scope, and approach to the measurement of business activities. Table B focuses on the approach to estimating changes in the capitals and valuing the impacts on people or dependencies for a business. Some capitals assessments for impacts will produce bespoke value factors, others will draw on preexisting impact value factors from another capitals assessment, from a dedicated provider of proprietary impact value factors, or from an independently governed public good methodology developer. Therefore, Table B focuses on bespoke, pre-existing, and independently governed value factors. Any adaptations/updates made to these tables need to be clearly indicated by the preparer. Such adaptations/updates would only be applicable for impacts, as dependency values are inherently business-specific and risk factors are typically generalized. Assessments which consider multiple impact and dependency categories will need to produce several Table Bs, one for each impact and dependency area.[13] For example, an assessment focusing on the impacts of GHG emissions and air pollution as well as flood risk and clean air dependencies will need to complete four iterations of Table B, one for each area (see Figure 9). The compilation of all relevant tables is the Transparency Report.

[13] "Impact/dependency area" refers to a specific category or grouping of related impact drivers/dependencies

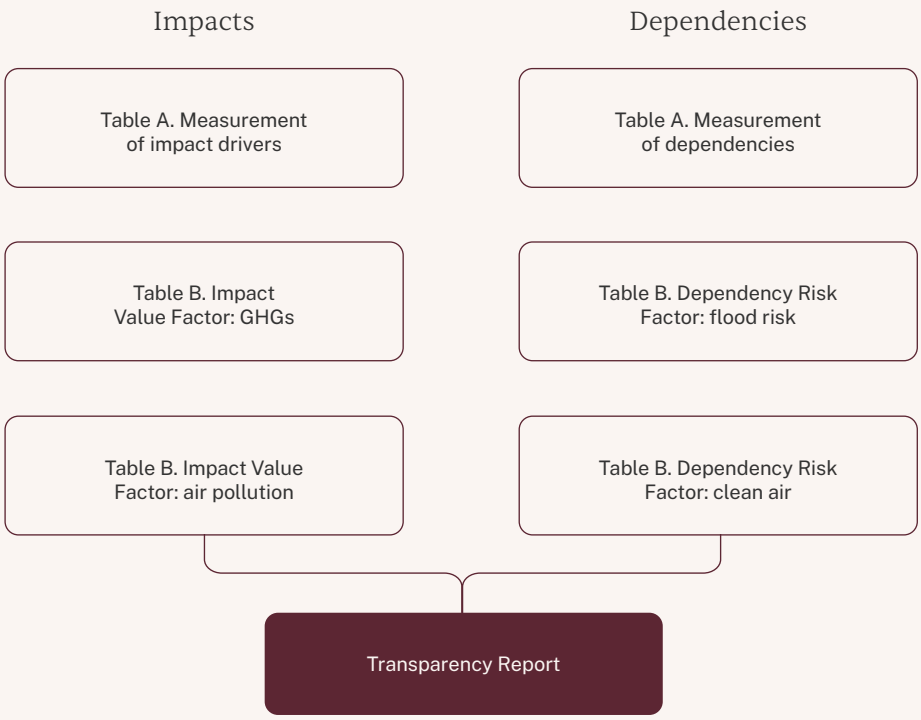


Figure 9. The Transparency Report is made up of Table A and a separate Table B for each impact/dependency area

Preexisting impact value factors and dependency risk factors

While developing bespoke impact value factors for an assessment can give the best representation of the perspectives of potentially affected stakeholders, it can be a resource-intensive process, often lack comparability, and contain conflicts of interest. It is also unnecessary for many common applications. As an alternative, use of preexisting value factors can be an effective way of getting an idea of the scale of impacts. Preexisting value factors vary greatly, as there is significant difference in applying the value factors from a separate bespoke assessment, a proprietary, but common methodology, and one that is an independently governed public good. As such, caution should be exercised when determining whether to create bespoke value factors, when choosing existing value factors, or when adapting them.

Preexisting impact value factors broadly fall into multiple groups:

i. Impact value factors developed for other capitals assessments that can be adapted to the context of interest.

ii. Generalized value factors provided by academics, governments, and consultancies, which have not been developed for a specific capitals assessment but for use and application by multiple users in different contexts. These approaches have varying degrees of transparency, comparability, and comprehensiveness.

    As a subset of ii, an independently governed, public good impact accounting methodology has been in production by IFVI, in partnership with VBA, to provide a common and comparable baseline for impact accounting that can apply for most common use cases. This methodology, building off best practice and innovations across other methodologies, provides both "minimum" options for application based on common data availability (for example, water consumption at a generalized country level), while also advising approaches that are more granular and sub-national, but nonetheless comparable across topics and users.

For dependencies, there is an increasing array of high-level risk factors available, particularly for natural capital assessments. For example, the ENCORE (Exploring Natural Capital Opportunities, Risks and Exposure) database[14] provides sector-specific ratings for different types of natural capital dependency, WWF provides water and biodiversity risk filters[15] for different geographies, and Swiss Re provides a nature-related risk tool[16] based on economic activity dependency on ecosystem services. Briefings such as those developed by the SUSTAIN project also provide an overview of data sources.[17]

Aside from natural capital, there is also a fairly mature market for services supporting businesses with assessments of social and political risk which can be used to inform dependency capitals assessments (see Table 2).

When using factors from sources other than your own primary data, it is always advisable to adapt these to your own context. Particularly for impact value factors, the more you involve stakeholders in efforts to adapt or validate the information, the better the value factors will reflect the specific impacts experienced. Similarly for dependencies, the academic field exploring these risks is a rapidly evolving space, so it is advisable to consider how reflective of your business's context the information you are using is.

[14] https://encorenature.org/en
[15] https://riskfilter.org/water/home
[16] https://www.swissre.com/institute/research/topics-and-risk-dialogues/climate-and-natural-catastrophe-risk/expertise-publication-biodiversity-and-ecosystems-services.html#/
[17] https://capitalscoalition.org/sustain-4/

Measurement of impact drivers and dependencies (Table A)

The two critical decisions in developing an approach to measurement of impact drivers and dependencies are i) what to include and ii) how to generate data on the levels of the drivers across that scope. Like other methodological decisions, the best approach will depend on the objectives and level of detail or specificity required.

The scope is determined by the initial materiality assessment and those decisions of most interest. Do they cover the whole organization? Is understanding of the broader value chain important? Is the gross impact or dependency value of most interest, or is understanding the value relative to another state (baseline), or an assumed future state (counterfactual), more relevant? For impacts, how can materiality from others' perspectives be incorporated?

Whatever the chosen scope, it will have significant implications on the options available to generate data on impact drivers and dependencies. The objective will also have a key bearing on how much effort is worthwhile to put into generating data that are as close to reality as possible. Some studies may choose to collect primary data across the whole scope of the assessment, perhaps to compare different industrial processes. Another assessment seeking to compare impacts of different industries may decide global industry averages are sufficient.

Where several different approaches are used, it is particularly important to outline which approaches were used for which parts of the scope and the resulting different levels of specificity achieved.

Transparency Report – Measurement of Impact Drivers [2-3 pages, plus diagrams in annex]	
Title and version #: Assessment name, version # **Impact driver:** Insert name of impact driver **Organization assessment is for:** Name of organization, contact details **Assessment details:** Outline if the assessment below is based on a forecast or an evaluation (retrospective) **Assessment timing:** Outline the time period of the assessment of the impact driver included **Published and updated date:** Date	
1. Assessment objective 1.1. What was the original objective of the assessment? How was it intended to be used? 1.2 If links to a reporting requirement, state which framework is being applied.	
Scope of the assessment	
2. Scope	2.1 Outline if and how an understanding of materiality informed the scope of the assessment. 2.2 Outline to what extent the perspectives of those affected or potentially affected by the business's activities were considered in determining the scope. If such perspectives are not included, provide rationale. 2.3 State the organizational boundary, geographical focus, value-chain scope and impact scope (using Annex I on Attribution for scoping the organizations contribution). 2.4 Comment on whether the desired scope was successfully captured in the assessment or whether in the course of the work some aspects were removed. 2.5 Outline the chosen baseline for the assessment (applicable even if this is a new assessment). 2.6 If a counterfactual is used in the assessment describe this, and provide information on the assumptions and/or supporting data driving it. If a counterfactual is not used, provide reasoning for its exclusion, and potential impacts this has on the assessment results.
Approach to estimating impact drivers	
3. Approach and specificity	3.1 Describe the approach used to measure impact drivers. If different methods were used, describe each and how they were applied to the scope. Use a diagram to summarize the approach taken across the scope of the assessment if useful. 3.2 Describe the level of data granularity and how well it represents the contextual specificity of the real-world relationships (specificity, completeness, and accuracy of data). 3.3 Highlight other core assumptions to the approach in the context of the assessment's objectives. 3.4 If multiple measurement approaches are used, provide a chart which shows the proportion of the final impacts by measurement approach Include a statement on the level of comparability of these approaches and the resulting figures. 3.5 Highlight any significant data gaps and how they were addressed.
4. Data inputs	4.1 List data sources and date of access. Specify if the data used were: primary data, secondary data, or a combination of primary and secondary data.
Sensitivity	
5. Sensitivity to key variables	5.1 Summarize approach to sensitivity analysis. 5.2 Where possible indicate the upper and lower bounds of confidence around the central estimate in % terms. 5.3 If any of the assessment has been independently reviewed or assured note the implication of that for the level of uncertainty.
Annex	
	Materiality summary (optional) Data source diagram, by organization boundary and value chain scope Data source chart, by impact driver type Sensitivity analysis chart

Transparency Report Table A. Measurement of impact drivers

Transparency Report – Measurement of dependencies [2-3 pages, plus diagrams in annex]	
Title and version #: Assessment name, version # **Dependency type:** Insert name of dependency **Organization assessment is for:** Name of organization, contact details **Assessment details:** Outline if the assessment below is based on a forecast or an evaluation (retrospective) **Assessment timing:** Outline the time period of the assessment of the dependency included **Published and updated date:** Date	
1. Assessment objective 1.1. What was the original objective of the assessment? How was it intended to be used? 1.2 If links to a reporting requirement, state which framework is being applied.	
Scope of the assessment	
2. What is included?	2.1 Outline if and how an understanding of materiality informed the scope of the assessment. 2.2 Outline the business dependency of interest. Note if the dependency has any links to an impact assessment. 2.3 State the organizational boundary, geographical focus, value-chain scope and impact scope. 2.4 Comment on whether the desired scope was successfully captured in the assessment or whether in the course of the work some aspects were removed. 2.5 What is the chosen baseline for the assessment. Note the baseline for the dependency (state of capital of interest) and for the business. 2.6 If a counterfactual is used in the assessment describe this, and provide information on the assumptions and/or supporting data driving it. If a counterfactual is not used, provide reasoning for its exclusion, and potential impacts this has on the assessment results.
Estimating dependencies	
3. Approach and specificity	3.1 Describe the approach used to measure dependencies. If different methods were used, describe each and how they were applied to the scope. Use a diagram to summarize the approach taken across the scope of the assessment if useful. 3.2 Describe how the approach was tailored to the context of your business and its value chain. Comment on how well the data reflect reality (specificity, completeness, and accuracy of data). 3.3 Highlight other core assumptions to the approach in the context of the assessment's objectives. 3.4 If multiple measurement approaches are used, provide a chart which shows the proportion of the final impacts by measurement approach. Include a statement on the level of comparability of these approaches and the resulting figures. 3.5 Highlight any significant data gaps and how they were addressed.
4. Data inputs	4.1 List most important data sources and dates. Specify if the data used were: primary data, secondary data, or a combination of primary and secondary data.
Sensitivity	
5. Sensitivity to key variables	5.1 Summarize approach to sensitivity analysis. 5.2 Where possible indicate the upper and lower bounds of confidence around the central estimate in % terms. 5.3 If any of the key inputs have been independently reviewed or assured note the implication of that for the level of uncertainty.
Annex	
	Materiality summary (optional) Data source diagram, by organization boundary and value chain scope Data source chart, by impact driver type Sensitivity analysis chart

Transparency Report Table A. Measurement of dependencies

Valuing impacts and dependencies (Table B)

There are multiple choices which go into developing impact value factors and dependency valuations. The objective of the Transparency Requirements is not to detail every decision, but to provide an approach to clearly communicate decisions made regarding the level of specificity and sensitivity in assessment results. It is anticipated those publishing results will provide a separate detailed methodology report, although that is not required by the Governance for Valuation approach.

Impacts – Bespoke/preexisting value factors (Table B)

The impact pathway is the heart of the approach to developing value factors. Calculations of impact attempt to mirror real-world relationships in an analytical model, considering the key variables which describe the context of interest. The model is a necessary simplification of reality but should try as much as possible (dependent on intended purpose) to take key variables into account.

For example, if trying to estimate the impacts of water consumption it is necessary to look at both the scarcity of water, and how that scarcity affects people's well-being. If an assessment uses a preexisting value factor from a separate assessment in another country and scales it for other countries based only on water scarcity, or doesn't consider the availability of infrastructure to provide clean water, health facilities, and the underlying health of the population, the assessment will fail to capture relationships properly. A common baseline methodology will help organizations identify which relationships and variables need to be represented in a model and can be applied for many common uses when assessed using the Confidence Criteria. Figure 10 presents an example for air pollution.

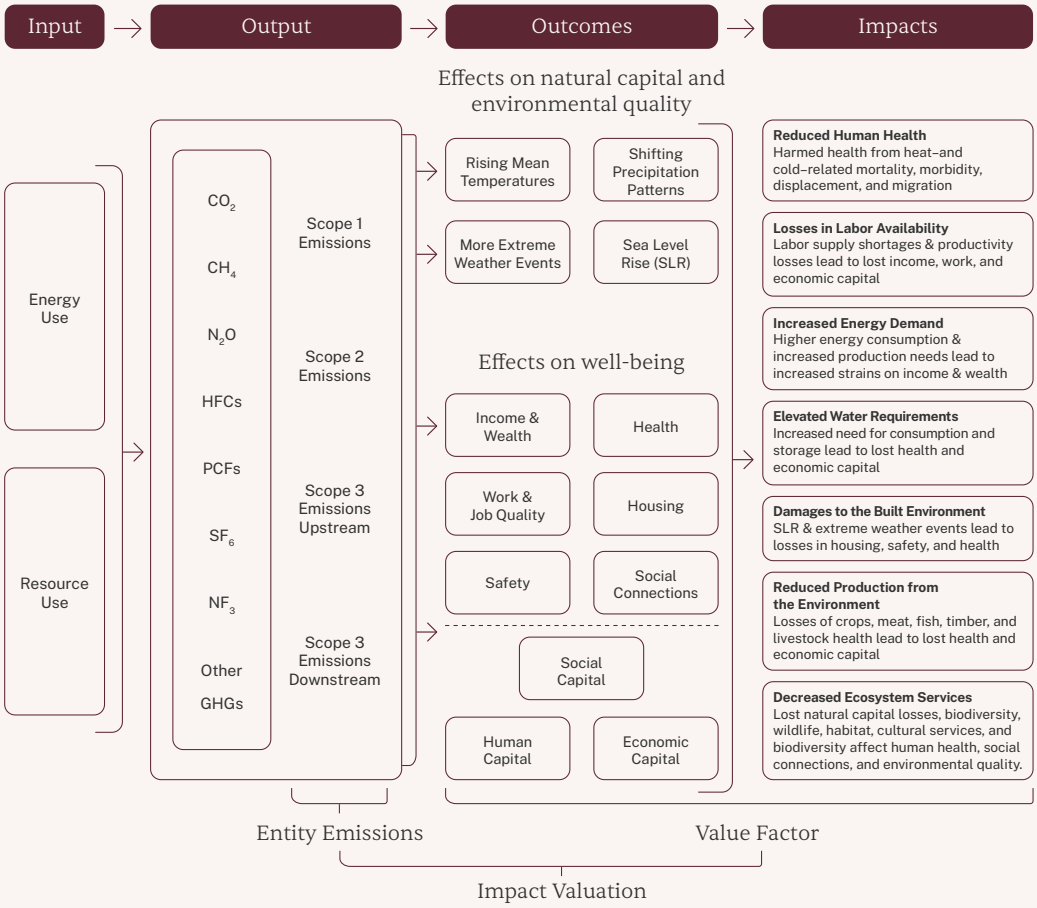


Figure 10. Impact pathway for air pollution and variables to consider

Source: Adapted from IFVI and VBA 2024, Environmental Methodology 1-Greenhouse Gas Emissions.

Note: * Starred impacts are those included in the models used to determine the value factor

An assessment will typically include several different impacts and will therefore use several different impact value factors. A separate table will usually be needed for each impact area, but a single table can be used for a family of value factors that follow the same methodology. For example, if the impacts of water consumption are calculated in the same way for multiple countries, Table B can be used for all countries.

The format of the table is the same for impact value factors developed specifically for an assessment and for preexisting value factors. If an assessment chooses to adapt preexisting value factors, then this needs to be clearly articulated. Ideally those who originally developed the value factors would have completed Table B, providing a reference for the original approach. In such a case Table B can focus only on updates without repeating what has not been changed. If a Table B from the original source is not available, more detail may be required to explain the approach more fully.

Transparency Report – Impact value factors [2-3 pages, plus diagrams in annex]		
Introductory information		
Title and version #: Name of value factor, include name of assessment if bespoke. Outline any adaptations in each section below if applicable **Developed by:** Name of organization/person who provided the value factor data **Governance:** Summarize the key decision makers in developing the impact value factor approach, and any protocols for periodic updates **Name of impact driver:** Which impact driver does this table correspond to **Published and updated date:** Date		
Value factor unit		
1. Unit	1.1 1.2 1.3 1.4	Outline the impact value factor unit. Indicate if the unit value is average or marginal. Indicate what the impact unit is scaled by. Outline any geographical/contextual/demographic specificities. Indicate the time period for which the value has been calculated.
2. Linkages to other value factors	2.1	Identify any linkages to complementary value factors which are intended to be used in conjunction with this one.
Scope of value factor		
3. Scope	3.1 3.2 3.3 3.4	Define the impact pathway chosen and highlight which impact end points are included in the value factor. Outline how materiality informed the choice of which impact end points to include in the scope. Use Annex I on Attribution to outline the scope of impacts included. Justify any limitations in impact scope using an assessment of relative materiality. Outline to what extent the perspectives of those affected or potentially affected by the business's activities were included in the materiality assessment. If such perspectives are not included, provide rationale of this exclusion. Confirm the extent to which the approach was able to fully capture the desired scope. If impacts could not be included in the assessment, outline why.

Estimating changes in capitals and impacts		
4. Approach and specificity – changes in capitals	4.1 4.2 4.3 4.4 4.5	Describe the approach used to estimate changes in capitals relevant to the impact scope. If different methods were used, describe each and how they were applied to each relationship between business activities and changes in capitals identified in the impact pathway. Describe how the approach was tailored to the context of your business and its value chain. Comment on how well the data reflect reality (specificity, completeness, and accuracy of data). Highlight other core assumptions to the approach in the context of the assessment's/value factor publisher's objectives. Highlight any significant data gaps and how they were addressed. List most important data sources (and date of this source) used to inform the analysis of changes in capitals.
5. Approach and specificity – impacts	5.1 5.2 5.3 5.4 5.5 5.6	Describe the approach to valuation. Indicate if the valuation is qualitative, quantitative, or monetary. If monetary, outline if it is considered a market or non-market value, or includes aspects of both. Describe the approach used to value impacts. If different methods were used, describe each and how they were applied to each of the relationships between changes in capitals and impacts on people identified in the impact pathway. Describe how the approach was tailored to the context of your business and its value chain. Comment on how well the data reflect reality (specificity, completeness, and accuracy of data). Highlight other core assumptions to the approach in the context of the assessment's/value factor publisher's objectives. Highlight any significant data gaps and how they were addressed. List most important data sources (and date of this source) used to inform the analysis of impacts.
6. Data inputs	6.1	List any other data sources and date of access.
Views of affected stakeholders[18]		
7. Representation of those affected	7.1 7.2 7.3	Confirm if and how affected stakeholders were identified in the approach. Outline if and how stakeholder views were integrated into the valuation. Provide a summary of how representative these views are of the wider group. If the views of certain stakeholders are not included, provide rationale for this.
Ethical decisions		
8. Equity weightings and income adjustments	8.1 8.2	Describe any equity weightings used and why these were selected. If monetary values are used, outline if and how variations in wealth, income, and purchasing power have been accounted for in the results.
9. Accounting for future impacts	9.1	Outline if and how future impacts have been accounted for relative to current impacts.
10. Other ethical considerations	10.1	Raise any specific ethical issues relevant to the generation or application of these value factors.
Sensitivity		
11. Sensitivity to key variables	11.1 11.2 11.3	Summarize approach to sensitivity analysis. At a minimum, list the data inputs with the most influence on the results and list the extent of change in results, if those inputs are increased or decreased by a given amount (ratio of % change). If any of the key inputs have been independently reviewed or assured note the implication of that for the level of uncertainty here.
Annex		
		Materiality chart (optional) Sensitivity analysis chart

Transparency Report Table B. Bespoke/preexisting impact value factors

[18] For this guidance, we define a stakeholder as, "an entity or individual that can reasonably be expected to be significantly affected by the organization's activities, products, and services, or whose actions can reasonably be expected to affect the ability of the organization to successfully implement its strategies and achieve its objectives." See Box 1, the discussion paper Valuing What Matters, and the *Capitals Protocol* for more guidance on considering stakeholders.

Dependencies – valuing dependency risk factors

Valuing dependencies requires an understanding of how capitals are or could change (whether caused by the business itself or external factors), and what the implications for this are on the business's ability to create value for its shareholders and stakeholders. The level of specificity and detail will affect the suitability of the information and confidence in the information for a given decision.

Transparency Report – Dependency risk factor [2-3 pages, plus diagrams in annex]		
Title and version #: Name of dependency risk factor, include name of assessment if bespoke **Developed by:** Name of organization/person who provided the dependency risk factor data **Governance:** Summarize the key decision-makers in developing the dependency risk factor approach, and any protocols for periodic updates **Name of impact driver:** Which dependency does this table correspond to **Published and updated date:** Date		
Risk factor unit		
1. Unit	1.1 1.2 1.3 1.4	Outline the dependency and unit. Indicate if the unit value is average of marginal or average. Indicate what the dependency unit is scaled by. Outline any geographical/contextual/demographic specificities. Indicate the time period for which the value has been calculated.
2. Linkages to other valuations	2.1	Identify any linkages to complementary dependency assessments which are intended to be used in conjunction with this one.
Scope of dependency valuation		
3. Dependency pathway scope	3.1 3.2 3.3	Define the dependency pathway chosen and highlight which dependency end points are included in the dependency risk factor. Outline how materiality informed the choice of which dependency end points to include in the scope. Confirm the extent to which the approach was able to fully capture the desired scope. If dependencies could not be included in the assessment, outline why.
Estimating changes in capitals and impacts		
4. Approach and specificity – changes in capitals	4.1 4.2 4.3 4.4 4.5	Describe the approach used to estimate changes in the capitals which affect the chosen dependencies. If different methods were used, describe each and how they were applied to each relationship between business activities and changes in capitals identified in the dependency pathway. Describe how the approach was tailored to the context of your business and its value chain. Comment on how well the data reflect reality (specificity, completeness, and accuracy of data). Outline the approach to estimate the likelihood of the change in capitals. Highlight any other core assumptions. List most important data sources (and date of this source) used to inform the analysis of changes in capitals.

5. Approach and specificity – impacts	5.1 5.2 5.3 5.4 5.5 5.6	Describe the approach to dependency valuation. Indicate if the valuation is qualitative, quantitative, or monetary. If monetary, outline if it is considered a market or non-market value, or includes aspects of both. Describe the approach used to value the dependencies. If different methods were used, describe each and how they were applied to each relationship between changes in capitals and change in business value, as identified in the dependency pathway. Describe how the approach was tailored to the context of your business and its value chain. Comment on how well the data reflect reality (specificity). Highlight other core assumptions to the approach in the context of the assessment's/value factor publisher's objectives. Highlight any significant data gaps and how they were addressed. List most important data sources (and date of this source) used to inform the analysis of impacts.
6.Data inputs	6.1	List any other important data sources (and date of this source) used to inform the analysis.
Annex		
		Materiality chart (optional) Sensitivity analysis chart List the outcomes considered/potentially relevant but not included in the assessment (and the reasons why)

Transparency Report Table B. Dependency risk factor

Making decisions: Confidence Criteria

Objective: To enable decision-makers to assess suitability of capitals information.

User: Those using capitals information (i.e., decision-makers).

Output: Confidence assessment summarized in Value Notes.

Audience: Non-technical audience who wishes to review the suitability of capitals information.

The Confidence Criteria are the heart of the Governance for Valuation approach because they allow decision-makers to assess whether capitals information they receive is suitable for their purpose. The Criteria draw on the information provided in the Transparency Report and no additional information should be required.

It is anticipated that decision-makers will work with technical specialists in interpreting Transparency Reports. However, the final report (see section in Value Notes) is designed to communicate and present the findings in a manner that is approachable for non-technical audiences (i.e., the decision-maker, a company Board, or the general public).

There is a very wide range of potential uses of capitals information. It is not possible to detail criteria specific to each potential use. Rather, the Confidence Criteria are centered around the characteristics of the intended use. For example, if a decision is comparing two companies in the same industry, industry average information on impacts is not going to be sufficient. Similarly, if the decision is considering different geographies, then the input data need to reflect the differences between them.

The Confidence Criteria are structured as a series of decision trees. It is necessary to review them all to assess suitability and confidence. This is because the scope of an assessment may be sufficient, but the level of specificity in estimating impact drivers and/or dependencies might limit confidence in the results. If Transparency Reports are incomplete or fail to provide sufficient information to answer the questions in the Confidence Criteria, then assessment results can be considered not fit for purpose as the default. It is important to note that analysis of the Criteria is intended to follow an iterative process. If any aspect of the Criteria analysis is deemed “unsuitable,” this should not be interpreted as rendering the entire assessment invalid. Rather, such findings should prompt a careful examination of the reasons behind the unsuitability and guide efforts to enhance the robustness of the Criteria in subsequent iterations.

Transparency Reports are made up of several tables, as described in the previous section, so users of the Confidence Criteria will need to consider information from all of these to get a full picture. For example, an assessment which covers several types of impact and/or dependency will include Transparency Report tables on the approach for each impact and dependency considered. If Transparency Reports show variable results in terms of confidence, a judgment will be needed in overall confidence, and this could be based on the relative importance of each area to the overall results.

For example, the approach to estimating the impacts of climate change may have high confidence, but the approach to estimating health and safety impacts may have low confidence. If the health and safety impacts are relatively immaterial to the overall result and to implications of the decisions in question, then confidence could be considered high. However, if health and safety impacts are more material then the overall assessment confidence should be considered low. Such a choice will inevitably require a decision-maker’s judgment, but if there is any doubt the level of confidence should default to the lowest confidence rating.

Decision tree	Core question – impacts	Core question - dependencies
1. Scope and Boundary	Is the original purpose clearly stated? Does the chosen scope and boundary cover all relevant areas?	
2. Specificity in estimating impact drivers and dependencies	Is the level of detail in impact driver or dependency data sufficient to inform the desired purpose?	
3. Specificity in estimating changes in capitals	Is the level of detail in estimating changes in capitals sufficient to inform the desired purpose?	
4. Approach to estimating societal impacts and business dependencies	Does the approach adequately represent variation in stakeholder preferences and subgroups within those stakeholders?	Does the approach adequately represent how business value is derived from the capital of interest?
5. Sensitivity and uncertainty	How different would the inputs to the assessment need to be to lead decision-makers to a different choice? And how much uncertainty is there in those inputs?	
6. Consideration of affected stakeholders	Are the people who will be affected by the decision known, and have they been consulted on the appropriateness of the capitals information and on the potential consequences of the decision?	Not applicable

Table 3. Structure of the Confidence Criteria decision trees

1. Scope and boundary

The scope and boundary determine what is included in an assessment and what is not. For the information to be fit for purpose, they must cover all aspects implicated in the intended purpose. For example, if the materiality assessment identifies an important impact or dependency which is not included in the assessment, then its absence is likely to skew the results. Equally, if an investor is comparing the total impacts or dependency liabilities of two companies but the data on the two companies cover a different scope, this inconsistency will lead to an inaccurate comparison.

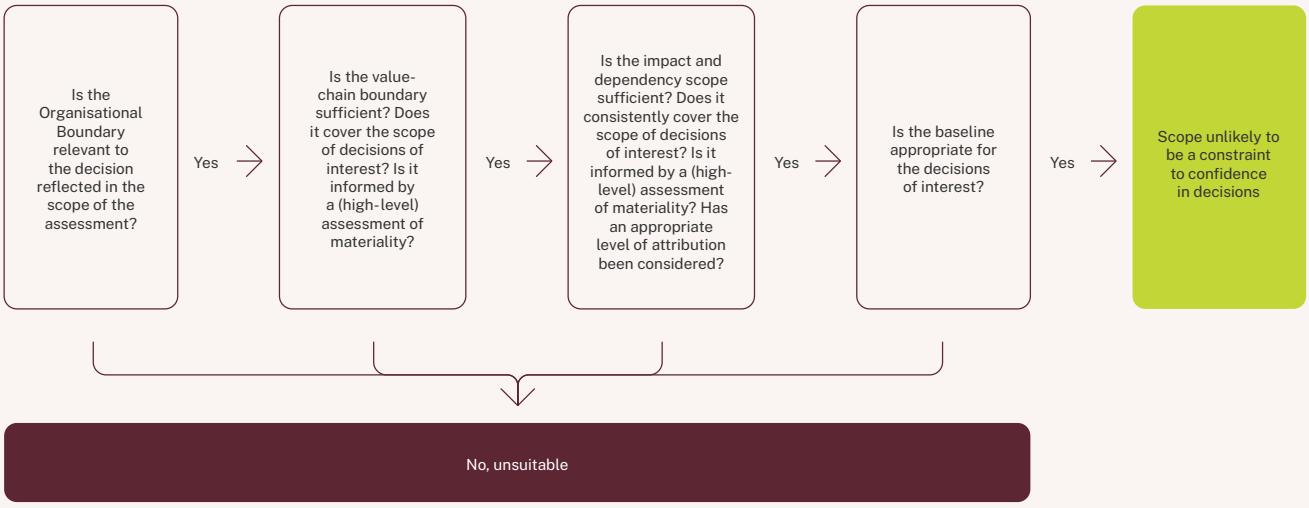


Figure 11. Confidence Criteria - decision tree for scope and boundary

2. Specificity in estimating impact drivers and dependencies

There are many different approaches to estimating impact drivers and dependencies, with different levels of specificity (i.e., how closely data reflect reality). For dependencies there is an important distinction between measurement of resource dependencies (i.e., inputs to production) and service or state dependencies. For service dependencies, the extent or level of the required service needs to be defined, potentially within an acceptable probability of variation (e.g., sea level and acceptable level of risk of flooding of certain extent, or air quality below which productive work is undermined).

Resource dependencies are more obviously tangible and can be measured. This is also the case for impact drivers, which often start with the same data point (e.g., use of water reflects a dependency and also leads to impacts due to reduced availability for others). If the value-chain scope focuses only on owned operations, then collecting these data should be comparatively straightforward. However, if the scope extends beyond the business's direct operations other secondary sources or modeled approaches will be required.

Table 4 provides examples of methods used. Many assessments will use a combination of different data sources to build up a complete picture of their impact drivers and resource dependencies across different parts of the value chain. For example, an assessment of a product would typically use primary measured data for at least some of the firm's own operations but might use life cycle assessments or input-output modeling for their supply chain, with end-of-life impacts estimated based on surveying a sample of customer disposal practices.

The Transparency Report requires assessments to state what proportion of results are informed by different approaches. While there are some general principles, each case will be different, and users will need to make judgments as to how closely data reflect the nuances of reality. The Confidence Criteria can help users of these data judge whether the data are sufficiently specific for their desired purpose.

Approach to measuring or estimating impact drivers and resource dependencies	Level of specificity
Directly measured primary data for all activities	High – measured based on actuals. If data are not complete, contain biases, or are outdated, then specificity is lower.
Directly measured primary data for a sample then extrapolated	Medium/high – depends on how representative sample is and how much variation is likely.
Life cycle assessment – transfer from a specific study with similar attributes	Medium/high – depends on how suitable the chosen study is. Could be a fair or poor representation of reality depending on practices and context.
Life cycle assessment – average of many studies	Medium/low – depends on level of variation across different practices and contexts.
Environmentally or socially extended input-output model	Low – typically data represent sector averages (with the whole economy subdivided into a relatively small number of sectors) and may be specific to one country or aggregated across several countries. Single country models fail to capture activities outside of the country, multi-country models typically have highly aggregated sectors.
Productivity model	Low/medium – typically relies on bespoke research to understand material flows. Will depend on specificity of the underlying data and variability in practices and contexts.

Table 4. The variable specificity of a range of methods for estimating impact drivers and resource dependencies

The extent to which the results of an assessment are suitable, and confidence can thus be placed in the decision, depends on whether the level of specificity in the data corresponds to the required level of specificity for the decision.

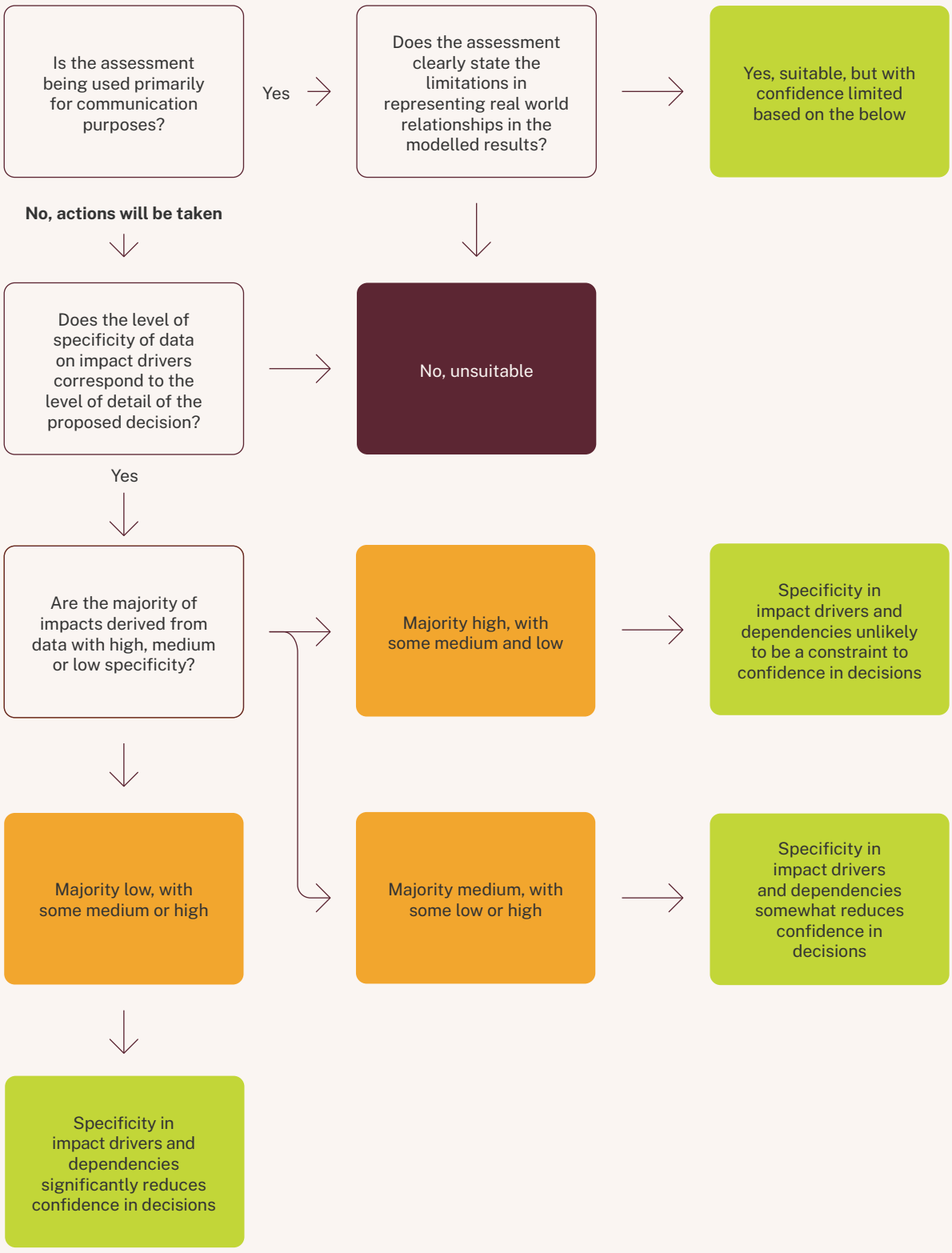


Figure 12 Confidence Criteria – decision tree for specificity in estimating impact drivers and dependencies[19]

[19] The Confidence Criteria depicted here can vary in application/relevance, depending on the decision-making context. For example, in relation to dependencies, data may be required to be critically analyzed to ensure compliance with regulations/liabilities.

3. Specificity in estimating changes in capitals

For impacts, estimating changes in capitals requires understanding the relationship between the impact drivers and capital stocks and flows. For dependencies, it requires understanding the change in capital stocks and flows, either as a result of the business's own activities, or as a result of other external factors. The changes could be observable current changes or could be potential future changes with an associated probability.

The first step in the Confidence Criteria is to confirm that the approach taken reflects the real-world relationships summarized in the impact and dependency pathway. In the air pollution example (see Figure 7), this will be the relationship between emission, dispersion in air, reaction with other pollutants, and resultant changes in air quality. Or for health and safety training, using the Confidence Criteria requires an understanding of how a change in quality and quantity of training leads to a change in frequency of incidents. The types of relationships are generally constant in different contexts, but the extent of changes will vary considerably based on local factors (e.g., wind speed, or health and safety infrastructure).

Data inputs to the models therefore need to reflect location-specific contextual nuances. They also need to be sufficiently up to date. That is not to say they need to be recent in all instances. For example, soil type may not change much over time, but prevailing air quality will, so users will need to make judgments on whether data are likely to change over time.

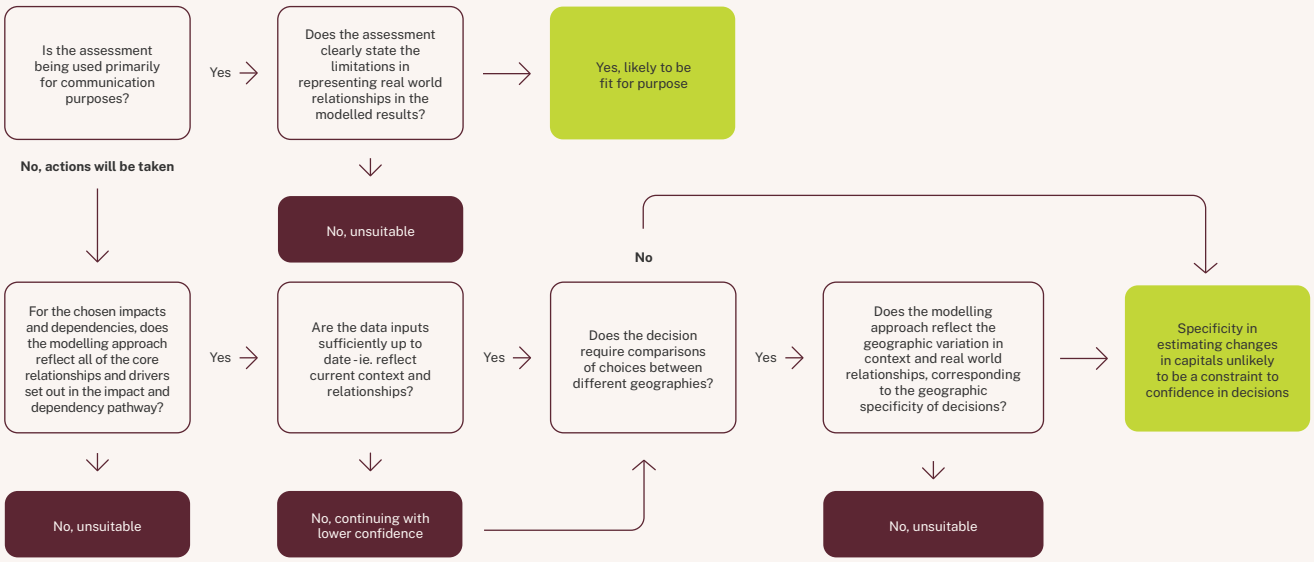


Figure 13. Confidence Criteria – decision tree for estimating changes in capitals [20]

[20] The Confidence Criteria depicted here can vary in application/relevance, depending on the decision-making context. For example, in relation to dependencies, data on changes to capitals may be required to be critically analyzed to ensure compliance with regulations/liabilities.

4. Approach to estimating the value of societal impacts and business dependencies

Approaches to valuing societal impacts and dependencies are quite different so are considered separately.

In valuing societal impacts, those doing assessments are trying to get a sense of the importance or worth of the change in capitals to people's well-being (positive or negative). If monetary approaches are used, the aim is to estimate how much money people would need to gain to accept a negative impact or forgo a positive one without affecting their overall well-being. Or conversely, how much money people would be prepared to lose to avoid a negative change or enjoy a positive change, and again, be no worse or better off.

In some instances, information from market transactions can give an indication of these preferences (e.g., premium on house prices near green spaces). However, in general, these exchange values will only represent a portion of the total value of the capital to people. Capitals assessments often use welfare-based approaches which seek to elicit preferences through indirect market or shadow-pricing techniques (e.g., avoided damage or replacement methods) or different kinds of surveys. These can give a more complete picture of value but given their indirect or hypothetical nature introduce other uncertainties as the impact is not being valued from the perspective of those experiencing the impacts. The Confidence Criteria presented here do not consider the underlying method used to elicit people's preferences. While different approaches may have different levels of completeness or may be more or less representative of actual preferences, the "best" approach is so context-specific that it has not been included here to maintain usability of the Governance for Valuation approach (the Capitals Protocol goes into more detail on this). However in Confidence Criteria 6, on the involvement of affected stakeholders, provides a suggestion on how to gain confidence in including views of affected stakeholders in impact statements.

In estimating these impacts, there are several important considerations which affect suitability and confidence in the results. The first is completeness, in terms of inclusion of those impacts considered by the business or relevant stakeholders to be material. Then, as per the Confidence Criteria for estimating changes in capitals, it is important to look at whether the data used reflect current conditions and are up to date. People's preferences can change, as can the state of knowledge about how changes in capitals affect people (particularly, for instance, as a result of new epidemiological studies of health impacts from pollutants).

The next set of questions in the Confidence Criteria concern the extent to which different stakeholders are affected. It is important to consider the preferences and prevailing conditions which could impact how incremental changes in the capitals affect different stakeholders. Country boundaries are often used to denote different stakeholders, but it may also be important to consider clearly distinct demographics within a country, particularly if they are likely to be affected differently by the decision. For more location- and stakeholder-specific assessments it is also important to consider the different experiences and views of subgroups within stakeholder groups – for example how men and women experience the impact differently.

Not all assessments will use monetary units to value impacts, but those that do need to consider how to account for differences in income across different populations. While economically correct to do equity weightings based on differences in income or purchasing power (to get a better reflection of willingness to pay or accept), this can also lead to unintended consequences if decision-makers are unaware of their use (see Box 4). It is therefore important to make clear the influence of equity weightings on results. One way to do this is by presenting two sets of results, one with and one without income adjustments.

Box 4: Avoiding unintended consequences of equity weighting impacts in decision-making

There are two key reasons why equity weightings or income adjustments are used in capitals assessments for impacts:

1. To avoid underrepresenting less-wealthy populations in results. For example, when an assessment estimates two groups' willingness to pay. Both groups give the same figure, but one group has significantly lower wealth than the other group. The less wealthy group is expressing a much stronger preference because their willingness to pay is a higher proportion of their wealth. An equity weighting can adjust for differences in wealth to make the estimates more realistically comparable.

2. To transfer estimates of willingness to pay from one population to another. Willingness to pay is bounded by one's ability to pay and is affected by the relative costs of goods or services in different countries. Relative purchasing power between two countries can be used to adjust and get a better estimate of actual willingness to pay in the country of interest. If this is done across multiple countries, it implies that the same consequence (e.g., number of health and safety incidents) has a lower impact in poorer countries versus richer countries. If the objective is to get an estimate of the overall compensation that would need to be paid to leave impacted people no worse off, then it remains the correct approach. On the contrary, if decision-makers want to compare locations, it could be misleading. Equity weightings like that described in (1) is one option, another is to present the results with and without the purchasing power adjustment.

Finally, there are important ethical considerations around how impacts on future populations are weighed against impacts on current populations, for example through the application of discount rates. Financial discount rates place lower importance on the future to account for the likelihood of economic growth and the opportunity cost of investment. Social discount rates also consider the likelihood of economic growth along with the extent to which people place more importance on impacts now or in the future, and how this evolves with changes in their income. Some assessments will choose to place equal weight on future generations; others may choose to place greater importance on current populations – either way the decision-maker needs to be aware of the decisions underlying the figures so they can judge if it is appropriate for their uses.

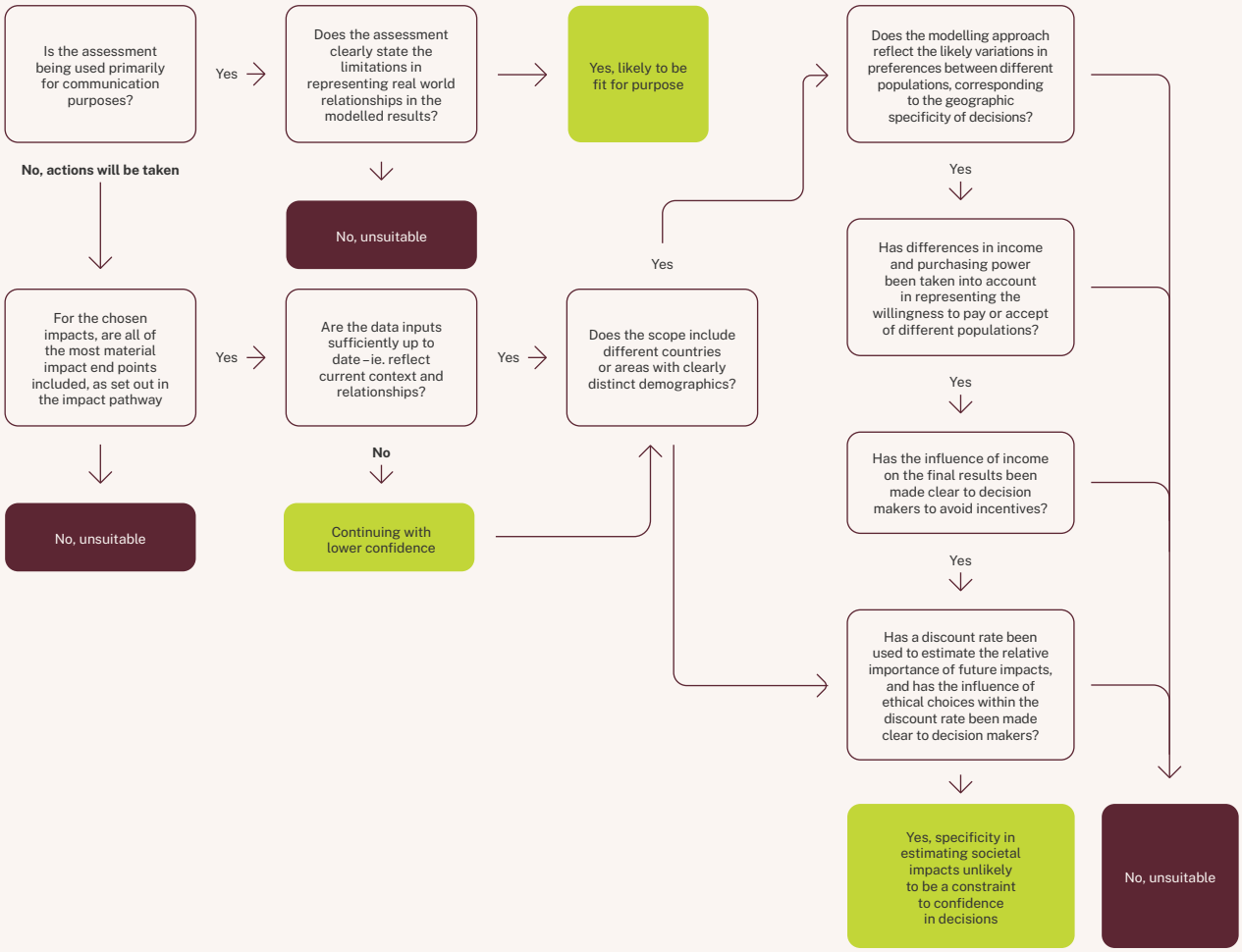


Figure 14. Confidence Criteria – decision tree for estimating societal impacts

For dependencies, the objective of the valuation exercise is to understand the extent to which operations could continue to generate value given a change (or risk of change) in a capital upon which those operations are to some extent dependent. Approaches to valuation include development of a production function (describing a relationship between changes in the capital input or service, alongside other factors, and changes in revenue), cost-based approaches (how much would it cost to replace the capital with a substitute), and value-at-risk approaches (estimating the value which could be lost given a certain likelihood in changes in the capital). As for impacts, dependency valuations are best done when considering marginal changes in capital availability or quality.

As with impacts, completeness is the first important consideration affecting suitability and confidence – using the dependency pathway as a guide. The data inputs again need to be reviewed, particularly with concerns about whether they are sufficiently up to date and thus reflect the current relationships between the capital input or service and the organization's ability to do business. Finally, the specificity of the approach itself needs to be considered, and whether it sufficiently reflects the nuances between different locations and business functions, for example.

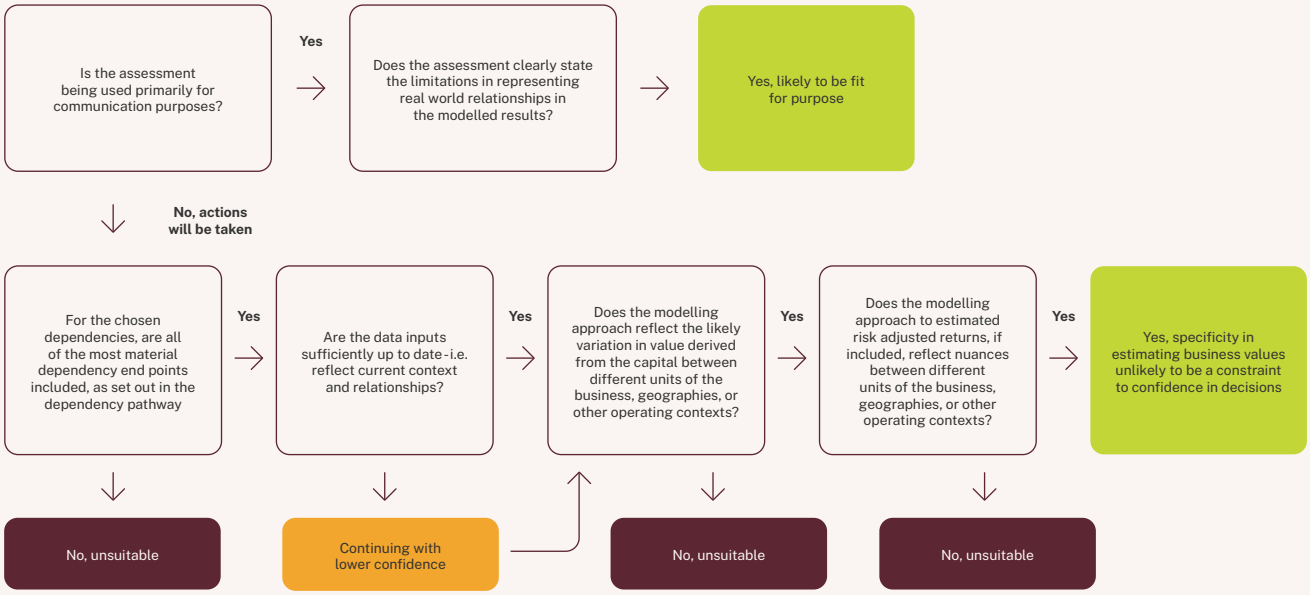


Figure 15. Confidence Criteria – decision tree for estimating the value of dependencies

5. Sensitivity and uncertainty

Often in capitals assessments what is more important than the absolute figures is whether the assessment provides sufficient confidence that the best decision is being made with the best available information. Sensitivity analysis can be used to assess how large or small parameters in the models would need to be to lead the decision-maker to a different conclusion, and how likely it is that those parameters could in fact be larger or smaller. The decision-maker can then make a judgment based on the necessary burden of proof.

Sensitivity analysis may involve simulation modeling to identify critical thresholds, where small changes in the value of assumptions yield large changes in assessment results. Alternatively, it may simply involve reporting a range of potential values for a particular impact or dependency based on applying a range of different assumption levels (e.g., high, medium, and low estimates of visitor numbers or intensity of resource use). If preexisting value factors are used in an assessment, it is essential to conduct a sensitivity analysis as the level of accuracy is likely to be uncertain. Table 5 provides further examples of assumptions which can be tested in a simple sensitivity analysis.

Assumptions you can test	How do my conclusions change if....
Number of people affected	...15,000 instead of 1,500 people are affected?
Scale of production and productivity	...1,000 units produced per unit input, instead of 100 units?
Magnitude of change in a capital	...impact on DALYs changes from 0.1 to 1 or even 10?
Changes in key prices	...the assumed cost of carbon is US$100 rather than US$25?
Change in cost of substitutes	...desalinated water production costs $1 per m3 rather than $0.5 per m3?
Changes to discount rates	...a discount rate of zero, 2%, 5%, or 10% is used?
Change in share price	...share price increases to $100 per share instead of $80 per share
Time horizon	...the assessment is carried out over a 10-, 30-or 60-year time frame?

Table 5. Example assumptions to test in a sensitivity analysis

As a starting point, one of the most used models, "one-at-a-time" or "one-factor-at-a-time" sensitivity analysis, can be used. As the name suggests, this involves changing one factor (assumption or variable) at a time to see what effect this produces. The output of this analysis:

- Provides a range of estimates which may reflect varying levels of confidence.
- May help to identify "switching values." These are values that a particular parameter or factor needs to attain in order to switch or flip the result, for example by altering the ranking of multiple options, changing the overall result from negative to positive (e.g., in a cost-benefit ratio), or crossing a threshold. Remember that systems thinking demonstrates that changing one variable will not always result in linear changes.

The hypothetical case study shown in the later sections of this document explores how changes made to value factors can alter the prioritization of impact areas within an organization.

The Transparency Requirements includes a section on sensitivity analysis which can inform the assessment of confidence here. The decision tree shown below provides guidance on how to use the sensitivity analysis to assess suitability and confidence.

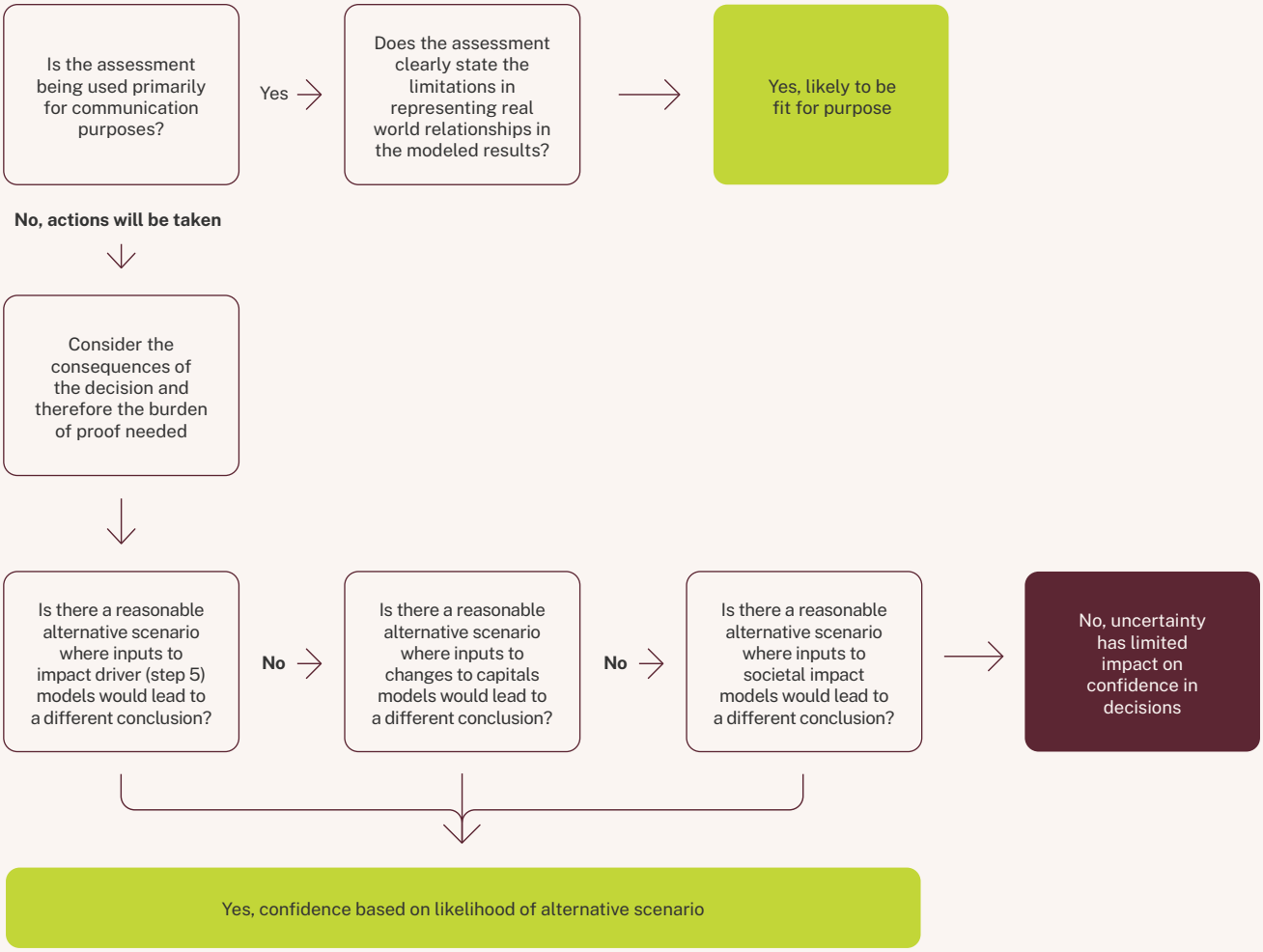


Figure 16. Confidence Criteria – decision tree for sensitivity and uncertainty

6. Involvement of affected stakeholders

Involvement of affected stakeholders is particularly relevant to assessments considering impacts. In some instances, it is not possible to identify or consult the specific population(s) which will be affected by the decision informed by the results of a capital assessment. A good example of this is climate change, which affects all humans now and in the future. In other instances, the affected population will be known or could be identified with reasonable effort. In such instances it is important that those potentially affected are consulted as part of the assessment.

In particular, affected stakeholders should be considered as part of

i) determination of the most material scope and impacts to include in an assessment, and
ii) assessing the importance or worth (value) of the impact, based on the affected stakeholders views. The Value Commission's paper on valuing impacts and dependencies more inclusively outlines the challenges and opportunities of this practice.

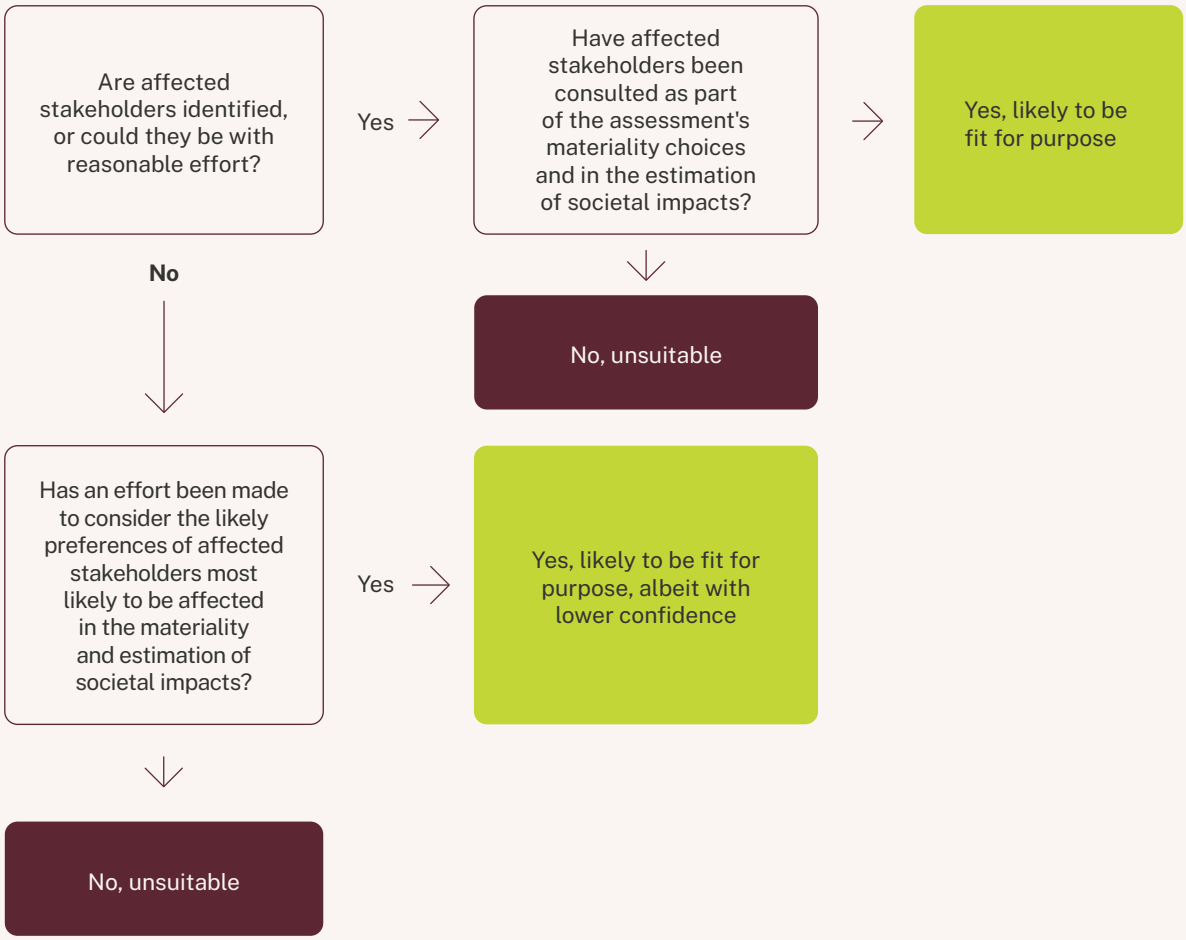


Figure 17. Confidence Criteria – decision tree for consideration of affected stakeholders

Communicating results: Value Notes

Objective: To summarize suitability of capitals information.

User: Various internal and external stakeholders with interest in the capitals information.

Output: Value Notes.

Audience: Decision-makers and external stakeholders (such as investors), to review how capitals information informed decisions.

Whether communicating internally or externally, it is important to clearly demonstrate why capitals information is decision-useful. The Governance for Valuation approach proposes Value Notes, analogous to notes on financial statements, which briefly present any pertinent information on how figures were calculated, how they should be interpreted, and any caveats to bear in mind. The objective is to empower the decision-maker. Table 6 proposes a format for Value Notes for capitals assessments. This follows the structure of the Confidence Criteria, summarizing the responses to each of the key questions therein. It is important to note that Value Notes are completed with a predetermined objective in mind so, as discussed in the Confidence Criteria, a different objective may lead to a different determination of confidence.

The Value Notes will also draw on the Transparency Reports, including points which are particularly relevant to confidence or fit-for-purpose. The final section of Value Notes presents a non-technical summary of the implications for decision-making.

Objective against which confidence is judged:
- Summarise the objective and decision-making context – this may or may not be the same as that outlined in the Transparency Report for Impact Drivers

Decision tree	Core question	Response and considerations for confidence in decision making
1. Scope and Boundary	Does the approach cover all the relevant areas? Has Attribution been considered?	- Summarise based responses to Confidence Criteria decision tree questions, drawing on Transparency Report and highlighting implications
2. Specificity in estimating impact drivers	Is the level of detail of data in impact drivers and dependencies sufficient to inform the desired purpose?	- As above
3. Specificity in estimating changes in capitals	Is the level of detail in estimating changes in capitals sufficient to inform the desired purpose?	- As above
4. Approach to estimating societal impacts	Impacts - Does the approach adequately represent variation in the target populations' preferences and subgroups within those populations? Dependencies - Does the approach adequately represent how business value is derived from the capital of interest?	- As above
5. Sensitivity and uncertainty	How likely is a scenario which would lead decision-makers to a different choice?	- As above
6. Consideration of affected peoples	For impacts, are the people who will be affected by the decision known, and have they been consulted on the appropriateness of the capitals information and on the potential consequences of the decision?	- As above

Overall summary for decision makers to note:
- Overall comment on fit for purpose outlined above
- Add a non-technical summary of the implications and any considerations to bear in mind

If a decision has been made
- Summarize the decision
- Outline how the capitals information has informed that decision and any trade-offs, alongside other information
- Summarize the consequences of the decision for the business and external stakeholders
- Summarize aspects of the assessment which were considered immaterial and therefore excluded from the assessment
- Summarize any iterations of the Transparency Requirements/Confidence Criteria

(i.e., any aspects of the assessment) which require being revisited

Table 6. Value Notes Structure

A Practical Example

To further support users of Governance for Valuation in implementing the processes outlined in this document, the following section provides a practical example. This example aims to show how confidence in valuation can be secured by applying the governance structure suggested in this document. It includes a high-level case study featuring a fictional organization, StuffIsUs, illustrating how a business might apply key elements of the document. While fictional, the example is informed by real-world data and practices, offering practical insights into the use of Transparency Requirements, Confidence Criteria, and Value Notes to guide business decisions. In addition to this, Annexes II and III provide more comprehensive insights into how to interpret each section of Governance for Valuation through further examples and explanations.

StuffIsUs - Impact of updating the social cost of carbon on prioritization of Natural Capital impact assessment of suppliers

Assessment Objective

StuffIsUs is a global retailer of home goods. In 2022, they conducted a high-level assessment of their supply chain impacts using the Transparent Natural Capital Management Accounting Methodology. The assessment had several goals:

- Inform long-term internal business strategy by evaluating risks, opportunities, and dependencies on nature
- Evaluate potential responses to reporting requirements, such as CSRD, EDR, and US SEC climate change reporting requirements.
- Prioritize new sustainability goals and voluntary targets for the most material parts of the business.
- Empower product and procurement managers to develop win-win opportunities to reduce financial costs and increase natural capital.

The results of the original assessment (original, "O" assessment) showed that GHG emissions were a substantial contributor to natural capital impacts for several StuffIsUs business units and suppliers. The original assessment used the published Kering value factor of $98 per metric ton of CO_2e emissions.[21] Recently, the U.S. updated its estimate of the social cost of carbon to $200 per metric ton of CO_2e.[22] This is a significant increase over previous values and is driven by new scientific data on climate change and a reduction in the discount rate from 3% to 2% (Kering uses a 3% rate). StuffIsUs has a strong presence in the U.S. and because of the material change in the impact value factor, they decided to conduct a new, standalone assessment (revised, "R" assessment) of the impact of the change in the value factor on business priorities, utilizing the approach of the Governance for Valuation.

Scope of Impact Drivers

The scope of the original assessment was to estimate the natural capital impacts across direct operations and the supply chain. The impact categories included all the categories included in the Transparent Natural Capital Management Accounting Methodology: GHGs; air pollution; water pollution; water consumption; land use and waste.

The original assessment included two major business lines, BeddingStuff and FurnitureStuff. The natural capital data were a mixture of primary data from 100 key suppliers augmented with EEIO and LCA data about their supply chains and key products. The GHG emissions for the 100 suppliers, along with water consumption and waste, was reported by suppliers for their facilities.

The only change between the original assessment and the revised assessment was the value factor for GHG emissions.

[21] See https://kering-group.opendatasoft.com
[22] USEPA 2023, Report on the Social Cost of Greenhouse Gas. Note: the SCC used by the US EPA places a "cost of life" which can significantly differ to those used in other nations/regions. Therefore, care should be taken with such values, and transparent reporting of the selection of such values should be undertaken.

Application of Confidence Criteria

As part of this assessment, StuffIsUs reviewed the extent to which the original assessment met the aspects of Confidence to assure that no other changes were required in their assessment (with the exception of the GHG value factor), ensuring that the revised values would be fit-for-purpose. StuffIsUs concluded that the original assessment was fit-for-purpose with respect to the first five criteria of the Governance for Valuation, and that criteria 6, consideration of affected peoples, was outside of the scope the original and revised in the new assessment. In fact, this revised assessment of GHG value factor could be viewed as an enhancement of sensitivity analysis (criteria 5).

Value Notes - Key Findings

- BeddingStuff (Sheets and blankets, predominantly cotton)
- FurnitureStuff (Furniture and home storage, wood, natural fibers and plastics)

The original ("O") and revised ("R") findings shifted how StuffIsUs viewed its priority impact areas across its entire business, and how it viewed its priorities within each business area (bedding area vs. furniture area – see Figure 18). BeddingStuff primarily uses natural fibers such as cotton for bedding, with substantial contributions to their natural capital accounts from water consumption and land use. FurnitureStuff, on the other hand, utilizes more synthetic materials like plastics in addition to some agriculture- and forestry-derived materials like wood and plant fibers.

The change in the GHG value factor led to an increased emphasis of GHG emissions and decreased emphasis on natural resources (e.g., land and water) in decision-making at the corporate and product level. For example, StuffIsUs's bedding business saw a dramatic shift in the impact drivers contributing to its overall valued impact, with GHG replacing water consumption to be the new number one priority. In contrast, the furniture business had already emphasized climate actions more than land and water use programs before the revision, since that was already the number one contributor.

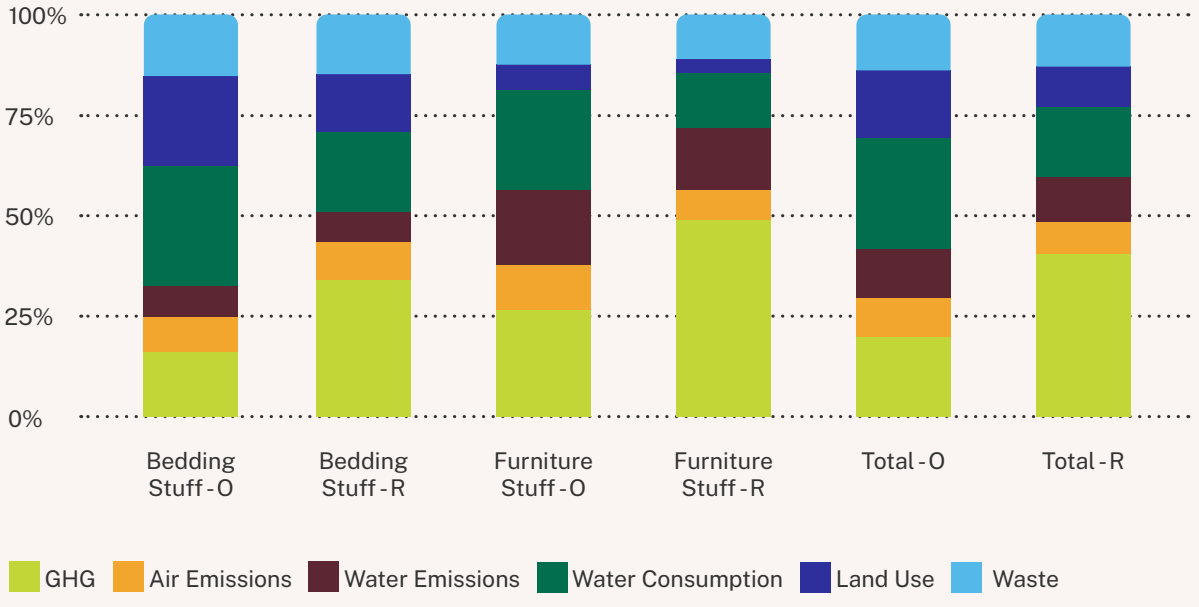


Figure 18. Natural Capital Impacts, by Percent, Original and Revised GHG value factor

The bedding business observed changes in the ranking and prioritization of the top-ranked manufacturing facilities that StuffIsUs had to engage with to strategically reduce their natural capital impacts (Figure 19):

	Original			Revised		
Rank	**Supplier**	**Country**	**Contribution**	**Supplier**	**Country**	**Contribution**
1	Factory A	US	High water risk	Factory B	Pakistan	Onsite coal usage, high water risk
2	Factory B	Pakistan	Onsite coal usage, high water risk	Factory F	China	Coal electricity use
3	Factory C	India	High water risk	Factory C	India	High water risk
4	Factory D	Guatemala	High water risk	Factory A	US	High water risk
5	Factory E	Cambodia	High water risk and biomass use	Factory G	Vietnam	High electricity use

Figure 19. Prioritization of impact areas

How the use of value factors informed decision-making

Overall, this governance framework allowed decision makers at StuffIsUs to test how the effectiveness of existing goals and improvement programs would hold up to potential uncertainty and changes in valuations. They were also able to examine the gaps and limitations of their goals and impact engagement programs, and determine how much of the company's impact, or the impact of materials or suppliers, could be reduced by existing programs and goals. For instance, StuffIsUs had already invested in GHG reduction programs, such as coal phase-out programs for factories, and thus was in a good position to continue reducing their overall natural capital impacts through continued investment in those programs. This finding helped internal program managers feel good that they were already taking the right actions. At the same time, StuffisUs observed a reduction in the relative importance placed on water and land in their natural capital accounts, but decided that acting on those impact areas was still necessary to make significant progress in overall natural capital impact reduction. As a result, program managers who had previously focused on water and biodiversity impacts were tasked with finding "win/win" actions that could positively impact natural resource use and GHGs across the value chain. StuffIsUs found that choosing the right valuation factors for an impact driver like climate change was not only a scientific/policy decision, but also a business decision. In addition to the possible external reputability of the natural capital account, StuffIsUs had to choose a valuation factor that would enable and incentivize its business leaders and supplier partners to act to improve the company's natural capital across all impact areas and business units. For example, a higher weighting of GHG emissions relative to other impact drivers might pose the risk that decision makers will deprioritize or underfund certain impacts like those to water and biodiversity that still contribute to the company's natural capital accounts (even if less than GHG emissions).

Annex I
Consider contribution to changes in capitals: Attribution

Attribution considers the extent to which your business is responsible for an impact within a system. Clear attribution enables you to identify which specific activities or processes drive changes in capitals, providing the foundation for informed, holistic decision-making. Without clear attribution, it becomes challenging to pinpoint responsibility, potentially leading to ineffective or misaligned strategies and actions in managing capitals.

The following scales of attribution should be used:

- **Direct:** The inclusion of activities conducted by the business, or that the business owns, or in which it has a controlling majority stake. For example, where the business is withdrawing water from a local water source.

- **Partial direct:** Where the business has worked with partners resulting in impacts and/or dependencies. The impact is still direct, and the assessment will need to attribute the part that corresponds to the business's activities. For example, where the business is one of several companies withdrawing water from a local water system.

- **Indirect:** Where the business has commissioned activities by others or within its supply chain. For example, products sourced in the value chain that require water extraction from local water sources.

- **Enabling:** Activities that the business has enabled, or which are carried out in its portfolio (e.g., financed) or by customers and other parts of the value chain who are using the business's products or infrastructure. For example, where companies the business invests in withdraw water from local water sources or the business creates products that are water-use intensive.

See Step D5.3 of the Capitals Protocol for more information

The table below outlines the key components of the Attribution assessment. The assessment can be integrated within the Transparency Requirements (Table A Measurement of impact drivers, question 2.3, and Table B Bespoke/preexisting impact value factors, question 3.2). In the Confidence Criteria, questions are also posed to the decision-maker to reflect on attribution, particularly in criteria 1 (scope and boundary).

Attribution	
Which impact pathway does this assessment concern?	Insert the name of impact pathway – this should correspond to the pathway outlined in Table A and B in the Transparency Requirements
What part of the business/ value chain does the outlined impact pathway relate to? What is the level of attribution of the business activity to this impact end point?	Outline whether this relates to owned operations, suppliers, etc. Select from the scales of attribution: Direct Partial direct Indirect Enabling
Rationale for attribution	Why was this tier chosen? Briefly explain business control, influence, or connection to the activity

Annex II
Hypothetical example of fashion company conducting environmental impact assessment of its supply chain

This hypothetical example considers a supply chain environmental impact assessment, with the objective of informing sourcing decisions. This example bears some resemblance to the Kering Environmental Profit & Loss but is not the same. It shows the anticipated level of detail required for each table within the approach.

Transparency Report

This Transparency Report includes:

- A. Measurement of impact drivers
- B. Preexisting value factors for air pollution (included in this example, loosely based on PwC's published methodology)

Transparency Report – Measurement of Impact Drivers

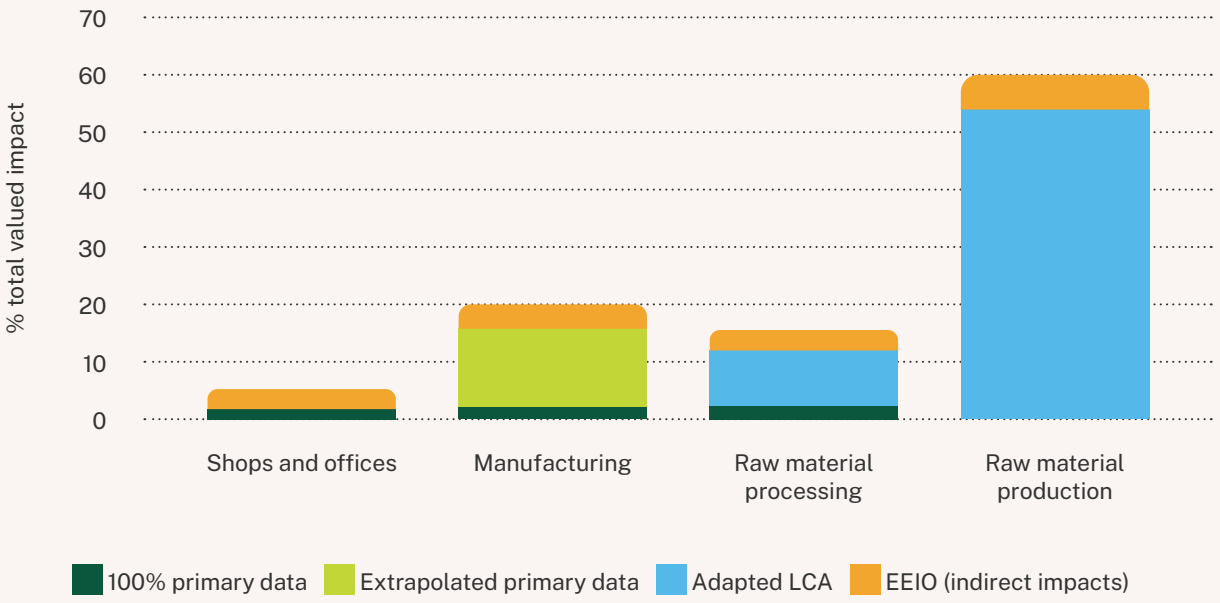
Title and version #: Fashion Company Supply Chain Impact Assessment, FY 2023
Organisation assessment is for: Consultant ABC for Fashion Company
Published and updated date: March 2024

Assessment objective	Explainer	Example
1	Understanding the objective provides the context for the methodology choices set out below. It can help users assess if their objectives are similar or different and thus inform considerations of fit for purpose.	To estimate total (gross) environmental impacts of Fashion Company. To compare different materials, from different locations, processed in different ways.
Scope of the assessment		
2. What is included?	2.1 In determining the scope of an assessment, it is often useful to focus on the areas with the most significant impacts.	Materiality considered from both the perspective of affected stakeholders and relevance to business performance (double materiality). Scope aims to capture all environmental impacts across the whole supply chain.
	2.2 To understand the likely significance of impacts, early consideration of those experiencing the impacts is advisable.	Likely affected stakeholders were not consulted on the scope, primarily because they are hard to identify across a global supply chain, but also because the objective was to include as complete a scope as possible for environmental impacts across the whole supply chain.
	2.3 Which parts of the business are included, across which geographies. Are you considering the up- and downstream impacts of your suppliers and customers. Which types of impacts are you including?	Organization Boundary: Whole organization Geographical and value chain scope: Global supply chain. From production of raw materials through processing to manufacturing and sale. Including corporate operations. Materiality assessment showed that impacts of use and end of life are relatively immaterial compared to production, and the company has limited control over their scale so have been excluded.
	2.4 A desired scope can sometimes be restricted due to limitations of data or budget, for example.	Impact scope: All material environmental impacts, 60 indicators in total, categorized into contribution to global warming, air pollution, water consumption, waste disposal, and land-use change. All impacts valued based on estimated economic welfare changes of people. Other types of impact are not included. Full intended scope covered.
	2.5 Are you considering the total impacts associated with your activities (gross), or the net impacts relative to a prior state?	Gross impacts: implicit baseline is if Fashion Company did not drive impacts they would not occur. Results used to drive comparison of materials on a per unit (weight) basis.
	2.6 Are you comparing your impacts to what would have, or might still, happen in the absence of your activities? If so it's important to explain these hypothetical scenarios.	Counterfactual is the absence of operations. Data on environmental condition of sites in this absence taken from {source x}. Assumes that condition is as stated in the date of source assessment {2022}- which presents a limitation as conditions in sites are likely to have changed since this assessment.

Approach to estimating impact drivers		
3. Approach and specificity	3.1 It is not uncommon to use a range of measurement approaches for assessments with a wide scope. For example using primary data where available and secondary or modeled data for parts of the scope which are further from your business's direct operations.	Corporate (offices, stores, owned manufacturing): 100% primary data collection. Product manufacturing: Survey of sampled suppliers covering 15% of total in each product category (by value of spend) and extrapolated (by value of spend within each product type) based on location and manufacturing practices. Raw material production and processing: Individual Life Cycle Assessment (LCA) studies selected to best represent each material production system. Adapted for different country contexts (e.g., power supply) and to have consistency in core assumptions (e.g., economic allocation between co-products). Indirect impacts outside of core value chain: Environmentally extended input-output model used (EXIOBASE), representing global economy in 44 countries (+ 5 rest of world categories) and 163 sectors. Corporate spend drives model impacts, with Tier 1 at each stage of the core value chain removed to avoid double counting with above.
	3.2 Assessments need to make simplifying assumptions in representing the activities across a business' value chain. These assumptions affect how closely the data reflects the actual activities. For example, using industry or country averages.	Overall, data on core value chain of medium to high specificity, with good level of comparability between geographies, materials, and manufacturing practices. Level of specificity outside of core value chain is low.
	3.3 -	N/A
	3.4 For example, if an assessment uses some primary data, some life cycle assessment data, and some modeled estimates it is useful to know how much of the total impact was informed by each approach to understand the relative specificity to your business and confidence in the results.	See in annex chart which shows types of measurement approach across the value chain, by scale of total impact.
	3.5 -	N/A
4. Data inputs	4.1 -	List of sources provided separately

Sensitivity		
5. Sensitivity to key variables	5.1 At a minimum it's often useful to list the data inputs with the most influence on the results, and for each to note the extent of change in results, if those inputs are increased or decreased by a given amount (ratio of % change).	Sensitivity analysis based on testing effect of changes in key variables on overall results. LCA data drive the bulk of the impacts through raw material production, however overall confidence in this is fairly high given detailed approach to selecting and adapting studies which most closely represent practices in the company's supply chain. Manufacturing is second largest contributor across the value chain, driven by power consumption. This has medium to high confidence due to level of primary data collection and extrapolation. Factors used for conversion of power consumption into emissions have high confidence. Approximately 30% of the primary surveyed data has been audited through annual audits of suppliers. All data went through rigorous validation checks to verify outliers (e.g., comparing energy use per unit production and spend across suppliers). There is lower confidence around the environmentally extended input-output models, however this is predominantly outside of the core value chain. See annex for summary of data sensitivity.
Annex		

Table A. Impact drivers



Proportion of total valued impacts by approach to estimating impact drivers

Key data sources table		
Use	**Data source**	**Notes**
Material LCAs:		
Bovine leather	LCA abc, author, source data 2011, based in France	Adapted for land use intensity, age at slaughter, economic allocation of co-products
Polyurethane leather	LCA abc, author, source data 2018, global average	Adapted for economic allocation for oil production and refining, shipping distances
Cotton production	LCA abc, author, source data 2013, based in India LCA abc, author, source data 2012, based in USA	Two studies used for different sources of cotton. Adapted for consistency of scope, for rain-fed vs irrigation and economic allocation of co-products
Organic cotton production	LCA abc, author, source data 2020, based in Egypt	Adapted for consistency of scope and economic allocation of co-products...etc.
Other key data sources:		
Grid factors	IPCC for GHGs	Emissions database for global atmospheric research for other pollutants to convert energy consumption into GHGs and other air pollutants

Activity of key variables		
Variable	**Relationship to results**	**Confidence in data source and implications**
Prices used in LCA economic allocation	Directly proportional 10% increase in prices (e.g. leather price relative to meat price) leads to 10% increase in LCA results and 6% increase in total results	Prices do fluctuate overtime and vary across different markets. However, overall confidence is reasonably high given prices of all co-products from a production system tend to move in the same direction.
Overall scale of LCA impacts reported	Variable depending on significance of material. Bovine Leather production highest contributor representing 20% of total impacts.	Confidence remains fairly high given careful selection of studies, comparing production practices in the studies to known practices in the supply chain. Adaptation of studies (see above) helped increase specificity, etc.

Transparency Report – Value factors

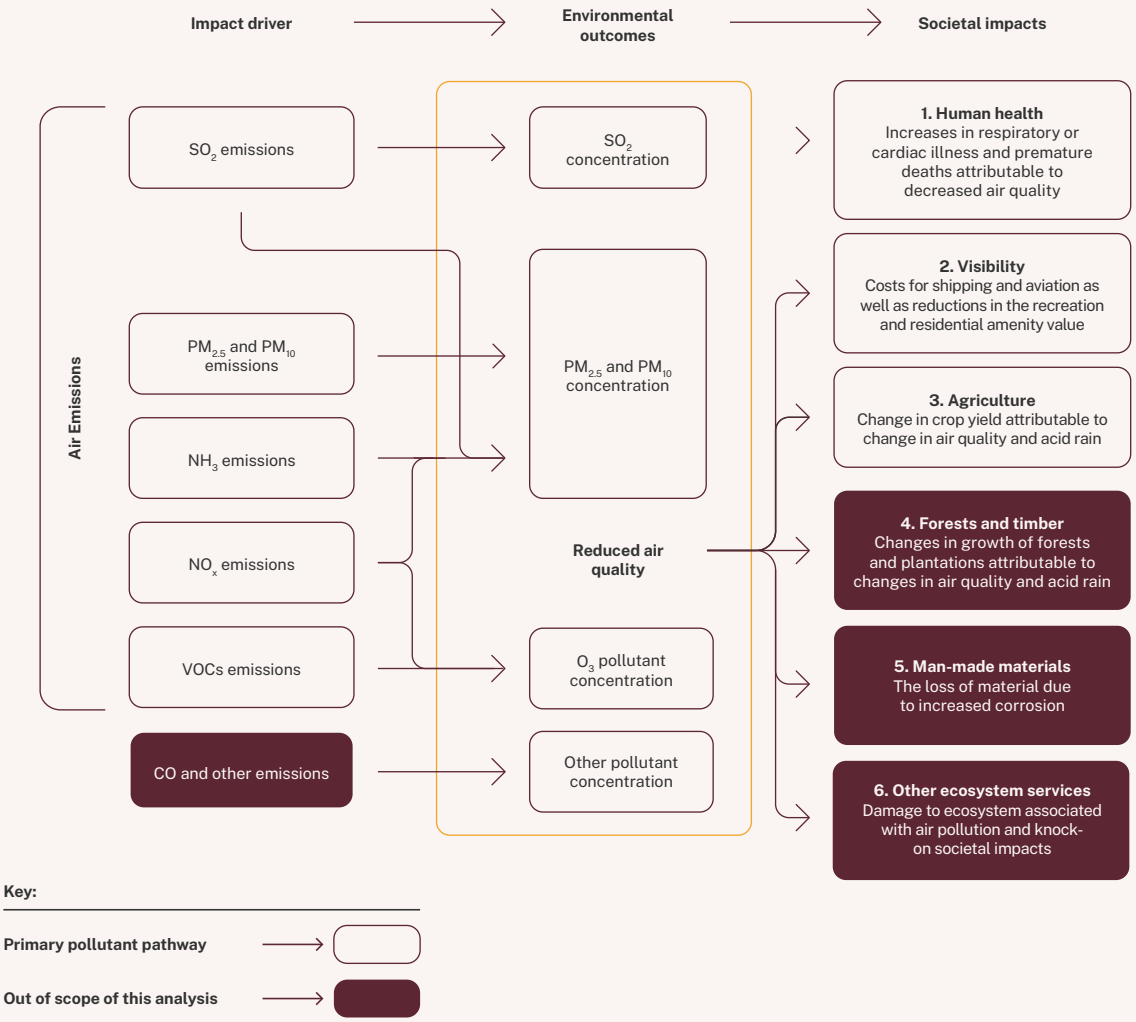
Developed by: Consultant ABC for Fashion Company
Published and updated date: March 2024
Title and version #: Fashion Company Supply Chain Impact Assessment, FY 2023, Valued societal impacts (2024 USD) per unit (tonne) of air pollutant released outdoors
Developed by: Consultant ABC for Fashion Company
Name of impact driver: Air pollution
Published and updated date: March 2024

Value factor unit	Explainer	Example
1. Unit	1.1 The unit should describe the impact (e.g., change in health as a result of air pollution), what it is measured in (e.g., number of cases of bronchitis, or monetary equivalent), and what it is scaled by (e.g., per tonne of PM2.5 released), and any contextual information (e.g., in 2025, in London, or in an average British city). It is also useful to clarify if it is marginal (e.g., the impact of one more tonne emitted taking into account the ambient air quality) or the average impact (e.g., of all emissions already released).	Valued societal impacts (2024 USD cost of healthcare) per unit (tonne) of air pollutant released outdoors, for SO2, PM2.5, PM10, NH3, NOx and VOCs, by rural, peri-urban, and urban (for stationary sources) and rural and urban transport (for mobile sources), by country.
2. Linkages to other value factors	2.1 Some value factors are developed together with consistent assumptions to allow comparability and aggregation of impacts.	Part of a family of value factors developed for air pollution, GHGs, waste disposal, land-use change, water consumption, and water pollution.
Scope of Value Factor		
3. Scope	3.1 Impact drivers can result in different types of impact end point. For example, air pollution affects human health, agricultural productivity, and property damage. It may be useful to include a diagram of the impact pathway to depict this.	Many existing studies focus only on health impacts (e.g., Defra 2011), here scope is broader to also include impacts on visibility and agriculture. This is comparable to the comprehensive study in the EU (ExternE 2005). Impacts on forestry, man-made materials, and other ecosystem services excluded.
	3.2 Some impact end points are likely to be more material than others. For air pollution the impacts on health tend to represent >90% of the total impacts.	These accounted for less than 1% in a large-scale assessment in the US (Muller and Mendelsohn 2007). Primary pollutants (PM, SO2, NOx, NH3, VOCs) and secondary pollutants (O3) are included. Only considers pollutants released outside. Approach is not suitable for indoor pollutants.
	3.3 Where affected stakeholders are identifiable, it is best practice to engage them early in the assessment to understand the nature of the impacts better and scope the assessment accordingly.	Potentially affected stakeholders are not identifiable given global scope.
	3.4 -	See impact pathway for summary scope.
Estimating changes in capitals and impacts		

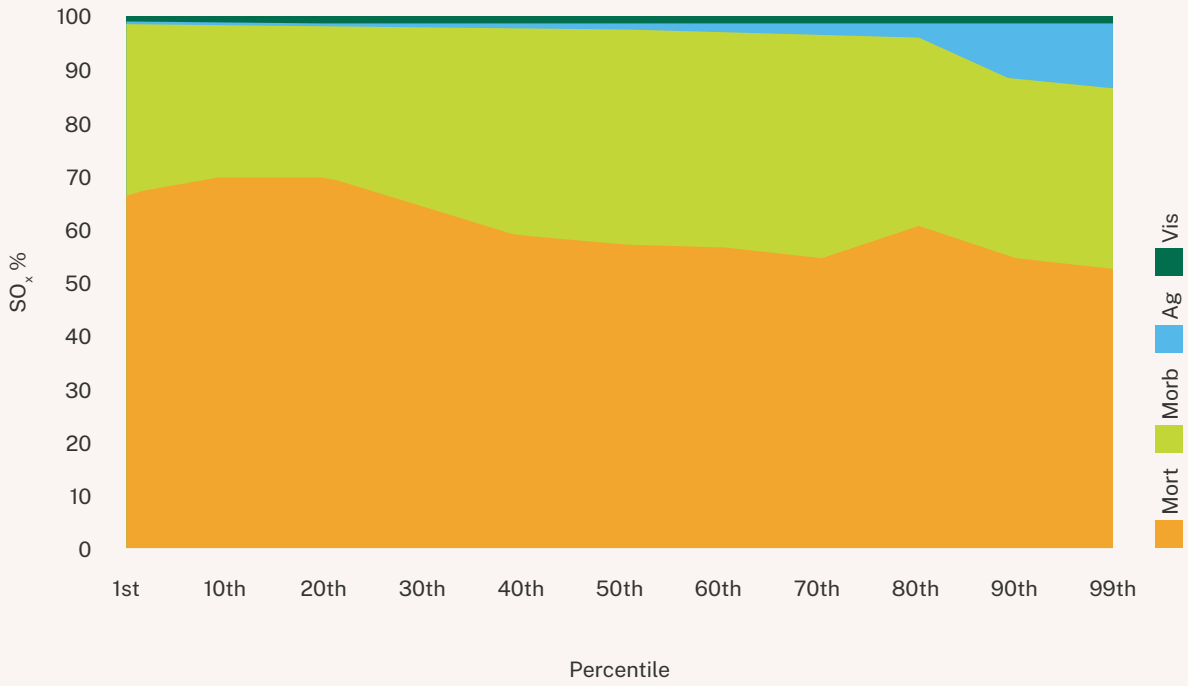
4. Approach and specificity- changes in capitals	4.1 It is not uncommon to use a range of approaches for impacts with several connected relationships, for example, building new hard infrastructure in a flood plain may affect water quality, freshwater availability, and local economic activities. 4.2 Assessments need to make simplifying assumptions in representing the activities across a business's value chain. These assumptions affect how closely the data reflect actual activities. For example, using industry or country averages. 4.3 - 4.4 - 4.5 -	Several points in a country are selected to represent rural, peri-urban, and urban. Meteorological data sourced from nearest weather stations. Air dispersion model (SimAir ATMOS 4.0, simplified version of US NOA model) determines change in primary and secondary pollutant concentrations over a specified area taking into account wind speed, precipitation, and mixing height. Dispersion model considers local meteorological conditions, as well as the persistence in air of pollutants in estimating change in air quality for each location. Approach takes into account key variables which drive differential impacts of air pollution in different areas. Dispersion modeling is fair representation of relationships and is well established in literature. Main uncertainty is around location and timing of actual emissions, annual country averages by different classification (rural, urban, etc.) help address this but less accuracy for countries with larger in-country variation in conditions (e.g., windy coastal city vs. inland city). If specific location of emissions is known bespoke factors could be developed using the same approach with more targeted data inputs.
5. Approach and specificity- impacts	5.1 - 5.2 It's important to distinguish between each stage in the impact pathway. The prior step considered how the business activity leads to a change in capitals (e.g., emission of air pollution to change in air quality), this step now looks at how that change in capitals affects people (e.g., change in air quality to change in human health). In some cases, particularly fairly crude benefit transfers, these steps are combined and the approach described here. 5.3 Tailoring the approach to impacts means making the preferences expressed in the valuation as relevant to the population actually affected as possible. 5.4 - 5.5 - 5.6 -	An estimate of the number of people affected is produced by overlaying a population for the sample area to the outputs of the dispersion model. Linear dose response functions for each primary pollutant are used to estimate health impacts for exposed population. These functions are well established in health literature. Morbidity estimated using meta-analysis of WTP estimates for specific health outcomes. OECD estimate of the value of statistical life used for mortality estimates. Visibility (smog) and agricultural impacts valued using multivariate transfer function from Muller and Mendelsohn's US estimate – highly approximate but low materiality. Overall approach is approximation of WTP but well established in literature. Critical assumption of transferability of WTP estimates across countries using income elasticity of 0.6. Benefit transfer of WTP estimates to account for lack of detailed country-by-country estimates.

6. Data inputs	6.1		ATMOS can be accessed here: https://urbanemissions.info/, Meteorological data from local weather stations (wind speed daily, wind direction hourly, precipitation monthly, mixing height twice daily) for year of interest. Population density from national statistics. - Muller N.Z. and Mendelssohn, R., (2007). Measuring the Damages of Air Pollution in the United States. Journal of Environmental Economics and Management, Vol. 54 (1), pp. 1-14. - OECD, (2011). Valuing Mortality Risk Reductions in Regulatory Analysis of Environmental, Health and Transport Policies: Policy Implications. OECD, Paris.
Views of affected stakeholders			
7. Representation of those affected	7.1	To fully understand impacts it is important to talk to those impacted. The valuation is intended to be a representation of the strength of their preferences. In some cases, for example where country averages are used, the affected stakeholders are not easily identifiable. In these instances some effort needs to be made to approximate the likely views across a range of those potentially affected groups.	The value factor was developed for country averages without specific impacts in mind. Therefore, potentially affected stakeholders were not able to be identified and were not consulted.
Ethical decisions			
8. Equity weightings and income adjustments	8.1	Equity weightings are an important part of the valuation process and ensure the values are a fair reflection of impacts – see additional guidance in Box 4 of the Governance for Valuation.	Purchasing power adjustments are made to estimates of WTP. For mortality and morbidity, an income elasticity of 0.6 is used. This is based on OECD guidelines to take into account that preferences for risk are not constant and WTP for health and life is not directly proportional. Separate value factors which remove the PPP adjustment are provided so decision-makers can avoid perverse incentives. These factors are not economically "correct" and do not represent WTP.
9. Accounting for future impacts	9.1	There are different approaches to discounting future impacts, which can have a very significant influence on the scale of impacts. It's important to be transparent about the approach used and include it in the sensitivity analysis (below).	Air pollution impacts are assumed to occur in same year as the emission, so discounting is not applied.
10. Other ethical considerations	10.1	-	These value factors are only suitable for country averages where the precise location of the emission is unknown or where an approximate estimate of the impacts is sufficient. If the affected population is known, it is recommended to develop bespoke factors by using more location precise estimates and using more population specific estimates of WTP.
Sensitivity			
11.Sensitivity to key variables	11.1	At a minimum, it's often useful to list the data inputs with the most influence on the results, and for each to note the extent of change in results, if those inputs are increased or decreased by a given amount (ratio of % change).	The parameter with the most impact on the results is wind speed, because this greatly affects dispersion. However, this is also the parameter with some of the lowest uncertainty due to detailed data availability in most countries. Parameters relating to the estimation of societal impacts (i.e., the WTP values) are of higher uncertainty, but are based on well documented studies with significant precedent for use in policy making so are considered best available estimates.
Annex (all charts from PWC 2015)			

Table B. Preexisting value factors for an assessment for air pollution



Impact pathway diagram



Materiality chart – example for SO_x provided, other pollutants similar with health impacts representing the vast majority of total impacts

Sensitivity analysis - Overall illustration of uncertainty in inputs and impact on results.

Objective against which confidence is judged:
- To estimate total (gross) environmental impacts of Fashion Company supply chain
- To compare different materials, from different locations, processed in different ways

Decision tree	Core question	Response and considerations for confidence in decision making
1. Scope and Boundary	Does the approach cover all the relevant areas?	- Organisation Boundary is appropriate. - Value Chain Boundary is restricted to supply chain, which responds } to core objective to compare sourcing decisions, but limits confidence in overall results because end of life impacts may not follow the same pattern as production impacts. Issue greatest for comparison between material categories, e.g. leather vs synthetics where synthetics will have relatively lower production impacts but higher end of life impacts. Less of an issue for comparisons within product categories (e.g. bovine leather vs sheep leather) or across locations. - Impact Scope focuses on environmental impacts which aligns with core objective. Decision makers should be aware that other impacts (e.g. social, economic) may not follow same pattern as environmental impacts. - Baseline is conservative, results give total impact associated with the company and allows comparison of sourcing decisions.
2. Specificity in estimating impact drivers	Is the level of detail of data in impact drivers sufficient to inform the desired purpose?	- Overall level of specificity in impact driver data is good, with efforts made to use best available data with reasonable effort for each part of the value chain. - Majority of impacts are derived from data with high levels of specificity such that it should not be a constraint to confidence of material sourcing decisions at the country – material – general manufacturing practice level. - For very detailed decisions (e.g. comparing farms within a country) more primary data would be required.

3. Specificity in estimating changes in capitals	Is the level of detail in estimating changes in capitals sufficient to inform the desired purpose?	- Modelling reflects core relationships in impact pathway (specifically dispersion modelling and relationship between primary and secondary pollutants) - Data inputs are sufficiently up to date (meteorological data collected for year of interest) - Geographical differences are sufficiently represented - reflected at a country level. For air pollution average of representative locations, with differences between rural, peri-urban, urban and mobile and static sources represented.
4. Approach to estimating societal impacts	Does approach adequately represent variation in the target populations' preferences?	- Most material societal impacts covered. Air pollution represents >98% estimated end points, with more detail on health (>95%) than other end points. - Data inputs represent best available information. Estimates of WTP for health are particularly influential on overall results, and while preferences for risk to health and life are not expected to move a lot over time they could do with an update (OECD study published 2005). Not a constraint to confidence in comparative decision making but might lower confidence in absolute figures somewhat. - WTP values have been adjusted to reflect geographical differences in purchasing power parity (PPP) at a country level, following OECD best practice on use of these estimates in decision making. Estimates with influence of PPP adjustment removed are available and it is recommended decision makers review these results to avoid perverse incentives.
5. Sensitivity and uncertainty	How likely is a scenario which would lead decision makers to a different choice?	- For comparison of sourcing decisions, it is principally changes in impact driver data which may influence the conclusions. Changes in capitals and societal impacts will largely move in the same direction for each side of the comparison so are of less concern. - As noted above, impact driver data has reasonably high confidence for sourcing decisions at the country – material – general manufacturing practice level. Decision makers should be more cautious if comparisons show similar (+/- 10-15%) results.
6. Consideration of affected peoples	Are the people who will be affected by the decision known, and have they been consulted on the appropriateness of the capitals information and on the potential consequences of the decision?	- Impact populations are not known or easily identifiable due to limited transparency beyond country level in most of the supply chain.

Overall summary for decision makers to note:

Overall, the capitals information is considered fit for purpose as set out above. However, decision-makers should be aware of constraints in terms of:

- Exclusion of impacts of use and end of life
- Exclusion of impacts beyond environmental
- Predominance of health impacts and uncertainties around absolute figures of WTP (less of an issue for comparison)
- Potential for perverse incentives, so need to review figures with and without income adjustments of WTP. If decision-makers intend on making more nuanced decisions around specific locations or technologies, for example, then additional primary data collection is recommended for those specific parts of the value chain.

Value Note for hypothetical example

Annex III
Further guidance on completing Dependency Table B

Value factor unit	Explainer
1. Unit	1.1 The unit should describe the dependency (e.g., change in agricultural productivity as a result of change in air quality), the way in which it is measured (e.g., value of production per area), what the measurement is scaled by (e.g., per tonne of PM2.5 released), and any contextual information (e.g., in 2025, in agriculture adjacent to UK cities). It is also useful to clarify if it is marginal (e.g., the effect of one more tonne emitted taking into account the ambient air quality) or the average effect (e.g., of all emissions already released).
2. Linkages to other valuations	2.1 Some risk factors are developed together with consistent assumptions to allow comparability and aggregation of dependencies.
Scope of dependency valuation	
3. Dependency pathway scope	3.1 Dependencies can support the business in different ways. For example, some air pollution may support agricultural productivity as well as worker productivity. It's important to be clear which end points are included in the valuation. A diagram of the dependency pathway can help with this. 3.2 Some aspects of the dependency are likely to be more material than others which can help focus the assessment.
Estimating changes in capitals and impacts	
4. Approach and specificity- changes in capitals	4.1 It is not uncommon to use a range of approaches for dependencies with several connected relationships. For example, the approach to understanding how changing air quality affects agricultural productivity and worker productivity will need to be different. 4.2 Assessments often make simplifying assumptions in representing the activities across a business's value chain. These assumptions, such as using industry or country averages, affect how closely the data reflect actual activities. 4.3 Often dependency valuations include a potential future change (such as climate change). In such instances a likelihood factor (percentage probability for a certain level of change) is used. 4.4 If using primary data for your own operations the results should be a good reflection of your business. For dependencies further from the business's direct operations, some level of generalization and approximation is generally required.
	5.1 There are different approaches to valuing dependencies, including estimating value at risk, replacement costs, or productivity-based methods. It is useful to explain which approach was used.

Transparency Report Table B. Dependency risk factor

Glossary

Attribution - An indication of the extent to which your business is responsible for an impact, whether positive or negative, within a system
Capitals Protocol, 2025

Baseline - The initial state or benchmark against which changes in the capital(s) or impact attributed to human activities can be compared.
Capitals Protocol, 2025

Capital - Any form of asset that translates value to people. The Capitals Protocol references four forms of capital: natural, human, social, and produced.
Capitals Protocol, 2025

Capitals assessment - The process of measuring and valuing relevant ("material") capital impacts and/or dependencies, using appropriate methods.
Capitals Protocol, 2025

Confidence Criteria - An approach to evaluate suitability of and confidence in capitals information for a given decision-maker's objectives, using the Transparency Requirements.
Governance for Valuation, 2025

Counterfactual - A future scenario against which changes in capitals attributed to human activities can be compared. Typically, the counterfactual describes a plausible expectation of what would happen without intervention.
Governance for Valuation, 2025

Dependency - A reliance on or use of a capital stock or flow.
Capitals Protocol, 2025

Dependency pathway - A description of how a particular business activity depends upon specific features of the different capitals. It identifies how observed or potential changes in a capital affect the cost and/or benefits of doing business.
Capitals Protocol, 2025

Dependency risk factor- an expression of the potential exposure, sensitivity, or vulnerability of an organization's performance to changes in the capital(s) on which it depends.
Governance for Valuation, 2025

Human capital - The knowledge, skills, competencies, and attributes embodied in individuals that contribute to improved performance and well-being.
Social & Human Capitals Protocol, 2021

Impact - A positive or negative change in one or more dimensions of well-being, following a change in capitals (stock or flow) as a result of human activities.
Capitals Protocol, 2025

Impact driver - A measurable input to, or output from, human activities, that results in impacts.
Capitals Protocol, 2025

Impact pathway - A description of how a particular impact driver results in changes in capitals and how these changes in capitals lead to impacts.
Capitals Protocol, 2025

Integrated capitals assessment - A process to measure and value all relevant capitals in terms of impacts and dependencies, which explicitly takes into account systems thinking including the interconnections within and between all of the capitals.
Principles of Integrated Capitals Assessments, 2021

Materiality - An impact or dependency on capitals is material if consideration of its value, as part of the set of information used for decision-making, has the potential to alter that decision.
Natural Capital Protocol, 2016

Monetary valuation - Valuation that uses money (e.g., $, €, ¥) as the common unit to assess the values of natural capital impacts or dependencies.
Natural Capital Protocol, 2016

Natural capital - The stock of renewable and non-renewable natural resources (e.g., plants, animals, air, water, soils, minerals) that combine to yield a flow of benefits to people.
Natural Capital Protocol, 2016

Opportunity - Activity that creates positive outcomes for organizations and nature, people, and/or society. Opportunities are generated through impacts and dependencies, and can occur when organizations avoid, reduce, mitigate, or manage risks, or through the strategic transformation of business models, products, services, markets, and investments that actively work to create positive impacts.
Adapted from TNFD, 2024

Produced capital - Human-made goods and financial assets used to produce goods and services consumed by society.
Capitals Protocol, 2025

Risk - Potential threats (effects of uncertainty) posed to an organization that arise from its and society's dependencies and impacts on a capital.
Adapted from TNFD, 2024

Sensitivity analysis - Analysis that may involve simulation modeling to identify critical thresholds, where small changes in the value of assumptions yield large changes in assessment results. Alternatively, it may simply involve reporting a range of potential values for a particular impact or dependency

based on applying a range of different assumption levels (e.g., high, medium, and low estimates of visitor numbers or intensity of resource use).
Capitals Protocol, 2025

Social capital - The networks together with shared norms, values, and understanding that facilitate cooperation within and among groups.
Social & Human Capitals Protocol, 2021

Social discount rate - An interest rate used to discount future costs and benefits to a present value (with a focus on societal welfare).
Adapted from Social Value International, 2023

Stakeholder - Any individual, organization, sector, or community with an interest in the outcome of a decision or process.
Capitals Protocol, 2025

Systems thinking - A holistic approach to analysis that considers the interrelations between human and non-human components across temporal and spatial scales. It involves identifying the drivers of change as determined and influenced by feedback loops, delays, and non-linear relationships, and focuses on long-term value.
Principles of Integrated Capitals Assessments, 2021

Transparency Requirements - A framework for consistent articulation of a capitals assessment's methodology choices in a Transparency Report, to inform an evaluation of suitability and confidence using Confidence Criteria.
Governance for Valuation, 2025

Value - The importance, worth, or usefulness of something. In this context value does not refer to ethics or morals as in "family values."
Adapted from the Natural Capital Protocol, 2016

(impact) Value factor - An expression of the relative importance, worth, or usefulness of changes in the capitals to people. Governance for Valuation Value Notes - A summary of an evaluation of the suitability of and confidence in capitals information for a given decision-maker's objectives, based on the Confidence Criteria.
Governance for Valuation, 2025

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