



Gold Standard[®]

ACCOUNTING & REPORTING THE CLIMATE IMPACT OF CERTIFIED COMMODITIES: GUIDANCE FOR CREATING A 'GREENHOUSE GAS REPORTING SYSTEM'

Version 1.0 for public consultation

August 2021

ACKNOWLEDGEMENTS

Gold Standard: Owen Hewlett (lead author)

The following participants, contributors, supporters and observers are gratefully acknowledged for their observations, comments, ideas and critique. This document (and all documents associated) do not necessarily represent views or policies of the individuals or organisations mentioned below.

SustainCERT*: Sandra Genée, Francesca Palamidessi, Robin Duchesneau, Javier Castro, Meinrad Bürer

ISEAL Member participants*:

- Better Cotton Initiative
- FSC
- MSC
- Textile Exchange
- Fair Trade
- RSB

Other participants*:

- Landscape Finance Lab

This initiative is made possible thanks to a grant from the ISEAL Innovations Fund, which is supported by the Swiss State Secretariat for Economic Affairs SECO.

The ISEAL Innovations Fund is supported by:



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Swiss Confederation

Federal Department of Economic Affairs,
Education and Research EAER
State Secretariat for Economic Affairs SECO

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1.0 | INTRODUCTION

1.1 | Context and purpose

This document is part of an initiative designed to assist ISEAL members and their stakeholders to design and implement robust climate accounting, reporting and disclosure strategies within their schemes. It is recommended, particularly if not familiar with the climate emergency or carbon accounting, to begin with the 'Introductory Guidance' document, before turning to this document.

By helping to align ISEAL members with a science-based corporate accounting and reporting approach for greenhouse gas disclosure and impacts in the context of the commodities they certify, the aim of this guidance is to:

- Provide guidance for members to develop approaches to credibly, design, implement, continually improve and transparently communicate a reporting system appropriately and in line with the science of the climate emergency in order to:
 - Identify the needs and capacities of stakeholders in order to inform a credible, robust, accessible and equitable system
 - Create accounting approaches that are comprehensive, credible and appropriate to the member's context and sector
 - Attribute emissions qualities to certified goods such that corporates in the appropriate chain of custody and in recognition of traceability and safeguarding issues, including making good use of the definitions and practices of allocation of supply and chain of custody in the ISEAL community
 - Quantify and monitor energy process and land management emissions associated with their certified commodities generally AND
 - Allow room for producers to take action to improve their emissions profile in order, for example, to seek beneficial pricing or preferential procurement

To achieve these aims, this guidance is focused on the creation of a transparent 'Greenhouse Gas Reporting System' (GHG-RS). This document will be bespoke and

particular to each ISEAL member scheme and is intended to communicate how their approach to climate disclosure and impact reporting is intended to work.

The GHG-RS is made up of eight key design elements that work together to inform, develop and implement a credible approach. Combined these elements represent a synthesis of existing ideas and new good practices and are designed to be worked through in order as a logical process flow.

No two ISEAL members will be starting from the same point. Some will have fully developed systems already in place and may wish to use this guidance to retrospectively sense check them for areas of improvements. Others will have nothing in place so far and use this to design and plan a system that meets their needs. Others still may have some elements in place but want to use this guidance as a gap-check to their further planning.

The guidance is thus intentionally open ended in some areas, avoiding prescription of approaches and a binary pass/fail mentality. That said, the guidance does point out key pitfalls and 'uncredible' behaviours that members should take care to avoid.

Likewise, no two GHG-RS outputs are likely to be the same, as each member operates in a different context. At their core however, the intent is that each GHG-RS is consistent with key guiding principles and good practices, such that taken as a whole the ISEAL community orients towards good practice in climate disclosure and impact reporting.

In this sense this guidance is loosely analogous to the ISEAL Codes of Good Practice, where principles, criteria and guidance set out, but each member has space to innovate and create the system best suited to their needs. The GHG-RS is perhaps most similar to the Assurance Brief that many members have in place to explain how certification decisions are made and how they are governed. These are loose analogies, however; the Guidance is not intended to be a formal requirement and members are free to adopt it as a whole or in part as they see fit.

The overall intention of creating this approach affords several opportunities for the ISEAL community. Whilst each member will have their own reasons for considering this guidance, some key ideas include:

- Meeting commitments to orient towards good practice in climate disclosure and impact reporting, as part of a wider response to the climate emergency

- To potentially increase price or demand for certified commodities as a response to growing corporate or certificate holder demand
- To be able to robustly, clearly and transparently communicate approaches taken
- To improve existing approaches and systems and build a pathway for continuous improvement over time
- To share ISEAL good practices with wider climate efforts and for it to influence others

The guidance provides a blueprint and initial toolbox for creating a robust system for climate disclosure and impact reporting. Some members will have in-house expertise, others may need to hire or partner with experts to deliver some aspects.

1.2 | Guiding Principles

To help frame the development of a robust GHG-RS, the following Guiding Principles are provided. These are high level and aspirational but may be useful when reviewing the intent behind a GHG-RS and its constituent elements. They may also be helpful when considering a choice between that have equally weighted pros and cons. Their intent however, is to communicate the philosophical approach behind the design elements in this document and the options given in each:

Table 1: Guiding Principles

Principle	In practice
1 – Recognize and prioritize the importance and role of value chains in climate mitigation	<ul style="list-style-type: none"> — Approaches align with common practices and key frameworks to enable inclusion in corporate reporting — Approaches are respectful of the corporate climate mitigation hierarchy and minimize risks of perverse outcomes

2 – Promote credible and transparent accounting, reporting and claims

- Adhere to good practices in emissions reporting, including that (from Greenhouse Gas Protocol):
 - Emissions and removals reported are **relevant** to the targeted commodities/standards system
 - Are **real** and **accurate**, as quantified, monitored and reported through credible approaches and **assured** by competent and independent assessment processes.
 - Are associated with the purchasing company, respectful of economic and spatial inputs
 - Are **transparently** allocated, tracked and ultimately claimed appropriately
 - Claims made are **true** and do not mislead consumers or stakeholders

4 – Considerate of equitable access and the varying challenges faced by producers

- Flexible enough to allow standards systems to adapt to their unique context, whilst maintaining credibility
- A balance of technical integrity and accessibility/practicality in application, which will mean different things to different stakeholders

5 – Promote sustainability

- Work with and promote the good work of ISEAL members in other areas of sustainability in order to promote this to participating corporates

2.0 | SCOPE, APPLICABILITY AND EXCLUSIONS

2.1 | Scope and applicability

This document is not intended or designed to be formally adopted by ISEAL members. Instead its intent is to guide the development, implementation and review of climate disclosure and impact reporting in the context of each member's needs. It is the *output* of following this guidance that would typically be expected to be adopted by members, however they wish to do so.

The scope of the document is therefore to assist in the development and implementation of a GHG-RS, enabling members to effectively design and communicate their approach and to populate and implement that approach with good practice tools. No two members GHG-RS is expected to look the same or to include the same choices, but in applying this guidance all will be consistent with over-arching good practice and the Guiding Principles set out in 1.2, above.

The application of this guidance may be beneficial at different stages of the design and implementation of climate reporting approaches. For some members this could mean using the guidance as a template for system design, before going on to implement. For others this may mean using it to systematically review their own practices, including those that are very mature, to look for improvements that could be made or to align with latest thinking.

In all cases the guidance recommends that a clear, transparent GHG-RS can help communicate the complexity of the intended system. As climate disclosure and impact reporting are complex, fast moving spaces, this can be invaluable in justifying how to navigate the member's approaches.

The intended scope of the guidance is to account for and report greenhouse gas emissions related to raw commodity production, processing, packaging and transport. It does not cover the conversion of products for other uses, such as the use of sugars or oils into consumer products, though members may well be able to infer how best to approach this based on this guidance.

Box 1: perfect vs good accounting

As ISEAL members review this guidance some aspects may initially feel difficult to reach in terms of application. One major issue with supply chain accounting and reporting is data quality and data access and as such many organizations are put off tackling these issues.

This is perfectly understandable, we are not yet at the point of being able to trace all commodities to source or to have supplier specific emissions data for all aspects of our work. But this shouldn't put stakeholders off applying this guidance or moving towards a credible system.

Instead it is better to progress with reporting to whatever quality is available, while acknowledging challenges and imperfection and transparently communicate limitations, assumptions and caveats that may exist. Ultimately the data produced is for users to interpret and assimilate into their own reporting and as such they will need to clearly understand the limitations of doing so.

In short; it is better to work imperfectly than not to report at all. The intent of a GHG-RS is to justify the decisions made and the limitations and assumptions included and to have a plan for improving over time, as data access and quality improves.

That being said, as member's may be applying their brand equity to the data and its use, it is important that a consideration of any redlines is included in the mindset of those creating a GHG-RS. This guidance doesn't itself set a minimum bar, but some members may wish to include some guard rails on certain elements, at least in the context of users referring to the member's brand/use of license.

2.2 | Exclusions

The scope of this guidance, as described above, concerns the design and maintenance of a GHG-RS related to raw commodity production, processing, packaging and transport. This means that its core focus is on climate disclosure and impact/outcomes at the member scheme level. In turn this means that the guidance does not intend to cover a wide range of related topics that may have a relevant

bearing on how a member takes forward their approach. These omissions do not mean these aren't important topics, it is merely to maintain the focus on the intended brief.

Where some of these areas materially impact GHG-RS design choices they are referred to in the guidance but are not the focus. The following is a list of exclusions from the scope of this guidance:

- The guidance could provide a way of formally assessing a GHG-RS, but this isn't the core purpose. A third-party assessment of a GHG-RS, for example a formal review by an expert or a peer review by a member standard with expertise, may be helpful to members, though a pass/fail mentality is not envisaged or recommended (see Box 1).
- The scope of the guidance is raw commodity production (meaning agricultural, marine and aquaculture crop and animal produce, livestock), processing, packaging and transport. Together these four steps convey the key aspects of the purchased goods category of GHGP. This guidance does not include for further use of the commodities in, for example consumer products, though inferences could be drawn for this purpose.
- No climate action should be conducted without proper social and environmental safeguards and without the thoughtful inclusion of affected stakeholders. Climate action should also include a consideration of wider sustainable development and climate resilience opportunities. This guidance fully acknowledges and recommends these provisions be included in all member schemes, but does not cover them in specific detail.
- The types of improvement actions that are eligible is left to each member to decide as they are best placed to know what is appropriate. This guidance does not provide input into these decisions as the breadth of commodities and actions covered in ISEAL membership would make this impossible in one document. It may be beneficial for like-minded members and communities working in the same sector or on the same commodities to collaborate to create further guidance and exemplars to this effect.
- The oversight and assurance communities have an important role to play in the credibility of climate disclosure and impact data. This guidance is primarily focused on design elements that combined make up a credible GHG-RS, but does not

specifically provide assurance or accreditation checklist information. These could be developed through extrapolation, however.

- There are a variety of incentives available associated with disclosure and impact information. This guidance primarily focuses on disclosure and the general incentives around that. It does further explore this relationship with impact incentives, such as results-based finance and carbon markets. Beyond brief notes however this guidance is not intended to be used to assist with seeking, for example, the issuance of carbon credits under third party standards. This would require further resource and expertise on the part of the certificate holder and the member scheme.
- The guidance does not focus on the topic of avoided use of products, i.e. the avoidance or reduction of the use of products by a company. This is an important topic but is left to members to consider in the context of their own schema and the advice they give to certificate holders and licensees.

Although the above areas are not covered in technical detail, many of them are cross-referenced throughout in order to make sense of them as related to the core approach. This in turn may allow members and other stakeholders to use the guidance as a jumping off point to explore other opportunities.

2.3 | Overview of key design elements and intended outputs

A robust GHG-RS is made up of eight key elements. These elements represent key moving parts of the system and how they interact with each other is what will ultimately make a system credible or otherwise. Each element should be carefully considered and designed and under each may be a series of options that could be applied. These options are all individually credible, but whether they are the right option for a given user will depend on the relative pros and cons of that choice. The guidance attempts to set out these considerations but cannot make them on behalf of the user.

The GHG-RS can be thought of as the document where these choices and the rationale for making them are captured. Users are encouraged to capture their choices and approaches transparently in a published document or web page, an optional template for which is included in Annex A [TO FOLLOW]. This guidance is not intended

to be a binary 'pass/fail' and members should not consider that a perfect system is required before implementing any of the tools within. Rather, a better approach would be to use the template to state transparently what is in place and achievable and to communicate where this isn't fully in line with latest good practice. From this point a plan can be made to rectify over time.

The eight design elements are as follows:

Table 2: eight design elements of a robust GHG-RS

Design Element	Description/Example
1 – Definition of scope and boundary of the GHG-RS	<p>This element describes how producers are included, which greenhouse gases included and the energy and land/marine management sources of emissions that are relevant*.</p> <hr/> <p><i>Example: one member includes all gases and process up to farm gate, another also includes an option for transport. Each member stratifies slightly differently, one by variety, the other by climate zone and variety. Each can explain their rationale for why this is appropriate.</i></p>
2 – Definition and scope of accounting approach	<p>This element describes our supplier information is stratified (for example by variety, practice, country, geography or climate) and how the emissions information will be accounted. This could include full LCA or process specific or a hybrid.</p>

It also describes the structural approach in terms of who in the system is responsible for quantification and using which tools.

Example: one member creates a sophisticated, centralized, mandatory digital tool for all certificate holders to use. Another creates clear principles but allows individual certificate holders to bring forward approaches for approval by their Assurance Provider.

3 – Approaches to quantifying emissions data

This element describes, in tandem with Element 2, how the actual quantification is calculated, in line with good practice.

Example: taking the examples given in Element 2, above, the first develops a bespoke tool, using this guidance to inform it. The second provides an open option but also recognises a list of tools and methods over time, as they come forward for approval.

4 – Approach to claimant causality and attribution

This element describes how the system ensures that companies correctly report certified commodities that are relevant and associated with their supply, including how their purchases and choices may cause beneficial change.

Example: one member uses a fully transparent chain of custody approach and has defined how the purchase of certified commodities from specific suppliers is a causal factor for change. Another takes a mass balance approach and manages an overall attribution system.

5 – Approach to assurance

This element describes how accounting and reporting in Elements 1 to 4 are assured.

Example: the member that chose a mandatory, central tool only requires its Assurance Providers to check that the tool has been used correctly. The member that allows Certificate Holders to decide for themselves requires additional training and possibly accreditation for its Certification Bodies to be able to assess these. To overcome this, the Certification Bodies partner with a centralised expert partner to help review approaches as part of their audit plan.

6 – Relationship with impact metrics and other mechanisms

This element describes any other elements of the member’s system that relate to impact claim and how this is managed with regards to matters such as double counting, where relevant.

Example: a member includes an ecosystems services impact approach as an optional add on for Certificate Holders. This allows users to pay for additional benefits, meaning that an additional layer of attribution is needed to ensure no double claiming. Another member has a large number of certificate holders issuing credits for carbon offsetting and needs to deduct these from the information being ascribed to companies.

7 – Approach to certificate and license holder claims

This element describes how all the previous elements come together in how claims are managed.

Example: one member creates bespoke claims guidance and advises its corporate community to use them, another refers to ISEAL Good Practice Guides while a third decides to pro-actively ‘police’ claims, requiring the removal of any public claims that do not adhere to their policies.

8 – System M&E and capacity building

This element describes how the member will maintain and update the system and individual elements over time, including for correction of past learning where needed. It may also include details of training and capacity building programmes.

This also includes clarity on how data will be managed, particularly where sensitive and personal data will be captured.

Example: one member appoints a team to monitor the impact and efficacy of its CRSD whilst another commits to periodic review, working with an expert partner. Both create training and capacity programmes for a variety of stakeholders involved.

Each of these design elements is further unpacked in the proceeding sections, below. For each the following core information is included:

- A description of the rationale and why it is needed in the system
- A list of the principle characteristics needed to create a robust design element AND
- Typical outputs that a robust GHG-RS may include, for example in the form of associated outputs, tools, templates etc
- A criteria checklist that can be used to assess the completeness and robustness of the GHG-RS
- Indicators of higher credibility options and areas of potential concern to avoid
- Guidance for the development of the element where further is needed, particularly where they are technically complex, including An overview of the different potential approaches available to deliver each of the above, along with pros and cons for each major choice

— Links to wider recommended reading and exemplars throughout, where appropriate

The elements are designed to be worked through in order, with each referencing previous choices made, though it is also possible to work on specific areas earlier than others too. It is likely that users will need to work back through their choices as they put the elements together and reassess whether the choices made still add up for the intended purpose.

Element 1: Definition of scope and boundary of the GHG-RS

Description and purpose of element: This element has two key objectives; to understand the users and uses of the GHG-RS and to define what is included and excluded. The result of this Element is a robust and comprehensive mapping of the system needs and boundaries and as such it underpins decisions taken in later Elements.

Underpinning this Element and indeed all future elements is a robust stakeholder overview and outreach to define the knowledge, capacity and intended users and uses of the information produced. The scope of the GHG-RS is the included standards, commodities and processes. This is further broken down into energy and land-based emissions accounting boundaries, which greenhouse gases are in scope and how these relate to the certification scope of the member's standards. This is an important first step as it effectively describes what is included and excluded from accounting and reporting under the GHG-RS and why.

These decisions, including any flexibility within the system will impact especially on Elements 2, 3 and 4, where quantification and attribution take place. The output of this element may require the production of a multi-section GHG-RS. For example, where a member's system includes multiple commodities it may be that the subsequent solutions for each differ (i.e. different options taken under subsequent elements). If so, then a GHG-RS section for each included commodity may be an appropriate way to convey this.

Principles

Recommended outputs

<ol style="list-style-type: none"> 1. The GHG-RS should record the stakeholder mapping and results of any survey and outreach used to make key decisions throughout. 2. The GHG-RS should describe which certified commodities and geographies are included in the GHG-RS approach and which standards are applicable. 	<ol style="list-style-type: none"> a. Stakeholder mapping and identification of intended or expected users and summary of uses of GHG data outputs (summary version for publication) b. An environmental scan of potentially relevant initiatives, data sets and tools that could be referenced (summary for publication, based on final recommendations) c. A description of included commodities and geographies and a rationale for any material exclusions d. A cross reference description of 'c', above vs which standards in the scheme they apply to e.
<p>Key checklist criteria:</p> <ul style="list-style-type: none"> • Is there a comprehensive map of stakeholders and their potential roles in the GHG-RS, including an overview of their relative capacities and their intended uses of the GHG data produced? • Is this evidenced by stakeholder outreach records (which may or may not be published, at the discretion of the member and its users)? 	<p>Credibility indicators:</p> <p>High credibility: the most robust and credible GHG-RS will have a clear understanding of its users and uses and incorporate this throughout the design choices made. This, along with the guiding principles of this document will ensure that the final GHG-RS is reflective of need and can be fully justified. Members should ultimately aim to include all certified commodities and geographies included in the scheme, noting transparently any exclusions. Generally, exclusions should be limited to elements of the standard and GHG-RS that are in the process of being tested or introduced, with the intent of</p>

- Does the GHG-RS clearly explain which certified commodities and geographies are to be included and under which standards they are to be certified?
- Has an environmental scan of potentially available data and tools been conducted?
- Are included commodities and geographies clearly stated and traceable back to the use-cases envisaged?
- Are there any excluded commodities, standards, geographies or groups of certificate holders and does the GHG-RS explain the rationale for same?

including them in future (ideally with approximate timelines to be included). Credibility indicators could include:

- Comprehensive, clear use-case statements and user identification built on inclusive stakeholder engagement
- An environment scan to identify research, thought leadership and critique, tools and data sets that may be relevant, with recommendations for same (along with any partnerships or collaborations announced)
- All certified raw commodities in the scheme are included or intended to be included in future (with outline timelines) in the GHG-RS
- A statement on the scope and applicability of GHG data outputs as related to the standards operated by the member

Potential areas of concern: the key for this Principle is to avoid overstating what is included and 'sins of omission' for what is excluded. These can mislead stakeholders in terms of the ambition of the GHG-RS and how and when they may be able to be involved. Secondly it is important not to design an entire system just for the benefit of larger buyers only. Potentially concerning indicators may include:

- A lack of outreach and engagement and a limited understanding of the intended users and uses of the data (as this will lead to poorly informed decisions in later elements).
- Prioritizing the feedback of the largest buyers to the detriment of the overall system design (though noting that large buyers are of course a key stakeholder)
- Risks of duplicative efforts by not properly researching third party initiatives, data sets and tools
- Failure to understand key critique of any existing approaches through peer reviewed literature or thought leadership
- Failures to explain exclusions or wording that implies things are included or in place when in reality they are not
- Absence of timelines for inclusion of further commodities/geographies where they were initially excluded from the system design

Guidance:

Each ISEAL member is different, serving different communities and stakeholders, covering different commodities, supply chains, geographies and practices. Some cover multiple products, ranging from coffee to chocolate to sugar (and the various varieties, regions and practices associated within each of these), whilst others focus on a more limited range of certified goods. Some will focus on impacts others on process, some on both. In all cases there is also a wide range of geographical coverage which may in turn influence processes that are impacted by spatial and physical inputs, such as soil carbon.

There are three key aspects to consider when beginning the journey towards creating a GHG-RS:

1. **Who are the intended users of GHG data and what will they use it for?** It is recommended that members conduct a robust survey and outreach process to identify existing and potential users to establish their relative capacities for engagement (including capability to produce and report data) and what they intend or do not intend to use the data for. Getting this right can ensure later choices do not over or underestimate intended users and that the GHG-RS is serving those it is intended for. Stakeholders that should be considered as a minimum are producers/certificate holders, assurance and oversight providers, users of the raw commodities (including those incorporating them into consumer products and companies reporting their GHG inventories). It may be worth considering stratification of potential data users by their size or sophistication, to ensure the that overall GHG-RS does not present a system for the largest corporates but is unusable for smaller companies and vice versa. Members may also wish to consult with experts and civil society partners in GHG reporting in their sector as well as to identify potential tools that may be available.
2. **What already exists that can inform or be a part of the GHG-RS?** Many sectors benefit from extensive research, thought leadership, data sets and tools that may be useful in informing lessons learned from past efforts, suggestions for improvement or could be incorporated for use in the GHG-RS. Such information is sometimes freely and publicly available via a simple environment scan research process. This could be conducted in house or by an expert in the field. Its results should be published, perhaps as an annex to the GHG-RS. Some sources and ideas are referenced in Element 3, but search terms such as '[commodity sector] life cycle assessment/inventory/emissions/carbon data sets/initiatives'

will very likely highlight key efforts, if they are not already known to the member. Member's could also speak with industry peers or publish requests for information via ISEAL and industry channels.

3. **Which certified commodities are included in the GHG-RS, which regions or countries are included in your GHG-RS above and any exclusions and rationale?** This should require little guidance to produce and should form the beginnings of thinking about how to stratify producers in order to accurately quantify emissions, covered in a later element. Generally, it is recommended that the GHG-RS is applicable to all commodities and geographies within a scheme, though if for any reason a commodity or geography is excluded then this should be clearly stated and explained. It may be that in producing the GHG-RS, members apply it first to a subset of their scope before applying more broadly as lessons are learned. This is a reasonable way to act but should be made clear in the GHG-RS such that stakeholders are fully informed of progress. Ideally members should commit to publishing timelines and ongoing findings (see Box 1, earlier in this document for a view point on prioritizing getting started over achieving perfection).

Other examples of possible exclusions may include it being a new aspect of the standard and hence still in testing and development, or it could be because a specific sourcing area is captured in a regulated scheme that makes participation impossible. There may be many reasons to do this, but members are recommended to aim to include all commodities and sourcing geographies and to have clear and transparent rationale where this is not possible. For excluded areas, members may wish to further state a timeline, in outline or in detail, for their inclusion.

4. **Which standards are applicable?** The GHG-RS should explain the relationship between the generation of emissions data and the underlying standards against which it might apply. This could be formally stated within the standards or it could be a simpler case of making a narrative explanation via a 'crib sheet' of how they relate. A recognized tool, for example, could be relevant to multiple standards.

With this mapping in place, the member should assess and propose applicability for the GHG-RS as it relates to the members standards, including the status and type of document it represents within the member's own definitions and taxonomy. At this stage it should be considered whether the data itself is intended to be certified under one or more of the standards or if it is supplementary or uncertified information (which will have a major impact in later Elements, such as 5 for assurance and 6 and 7 related to claims). This can refer to the mapping of intended users and use cases noted above as through this it should be clear how the data produced will relate to users and uses of the member's standards.

3. The GHG-RS should define:

- a. The physical boundary for estimating emissions accounting information (this guidance focuses on the production unit boundary plus the steps of processing, packaging and transport) though members may feel confident enough to include further steps if they wish
- b. The energy processes associated with production that are included in the accounting approach
- c. The land-based (or marine) emissions processes that are included in the accounting approach
- d. Any excluded processes from the above that would be reasonably expected to impact energy process or land management emissions associated with production

1. A description of the scope and boundary of climate disclosure as relates to the key steps of production, processing, transport and packaging steps (plus any further that are beyond the scope of this guidance)
2. Within the categories of energy process and land management, describe all potential sources and sinks of emissions included as related to 1, above, that could be included (and justification of any excluded). This may come from third party data sources, research or initiatives highlighted in Principles 1 and 2, above.
3. List of further activities that may be included that are not part of the energy or land management processes associated with production, processing, transport and packaging (i.e. are 'extra' value chain, for example related to conservation, domestic situation of producers)

- e. Any sources or sinks of emission included but that are not associated with the production, processing, packaging or transport of commodities

Key checklist criteria:

- Were the mapping exercises carried out from scratch or by reference to pre-existing research and data? In each case how were gaps avoided?
- For each included commodity, does the GHG-RS describe all relevant sources and sinks of emissions associated with each category (delineated by energy processes and land/marine/aquaculture management)?
- Are all four recommended steps (production, transport, processing and packaging) included or are any excluded? Is there justification for the exclusion?
- Is there clear justification for the long list of sources and sinks of emissions, for example by reference to third party, peer reviewed data or via the input of an expert (internal or external) in Life Cycle Assessment (LCA)?
- Is the information presented in a logical and straightforward to understand fashion?

Credibility principles:

High credibility: at this stage members are looking to be able to see all aspects that could be potentially included in the GHG-RS. Hence even if some sources and sinks of emissions are to be later excluded or managed using default data, they should still be identified and referenced at this stage. Ideally all four categories noted (production, processing, transport, packaging) should be included though this also depends on the scope of the member's scheme. This long-listing stage should aim for comprehensive inclusion of all relevant and material sources and sinks of emissions, a first principle of GHGP.

It should be clear how the list was created and readers should feel confident that it is comprehensive and that any exclusions are transparently communicated. Accordingly, any references to third party studies or the use of experts to create and review the list should be stated. This could also include a reliance on third party mapping, for example through third party tools and guidance. Indicators of high credibility:

- Does the mapping make clear which processes are part of the scope of certification and which are not (if necessary)?
- Does the mapping make clear any processes that cannot be assumed to be associated with the value chain of the commodity?

1. Identification of boundary and processes included based on expert input and peer reviewed literature to ensure it is comprehensive
2. No potentially significant or material exclusions or errors, as assessed by experts or by comparison to peer reviewed literature

Potential areas of concern: at this stage the key is to be able to 'see the edges' of the potential sources and sinks of emissions. Decisions on what to do with them come later, hence exclusions should be limited and clearly justified. The main pitfalls at this point are to inadvertently miss key sources and sinks of emissions and hence this likely requires a degree of expertise and an engagement with the supply chain stakeholders, potentially via a consultation.

Member's should also take care to delineate between sources/sinks relevant to the Scope 3 boundary and anything else included that does not. It is credible to include both, but not credible to include things for Scope 3 accounting that do not relate to supply chain activities. Indicators of potential concern may include:

- A self-generated list of processes that has not been compared with expert or peer reviewed literature
- Conflation of processes that do not impact production, processing, packaging or transport emissions with those in the Scope 3 boundary

Guidance:

The intent of this principle is to develop further from the second (i.e. the list of included commodities/geographies/standards) and create a schedule for each based on supply chain step (production/processing/transport/packaging). Next, within each step identify the 'long list' of sources and sinks of emissions potentially associated with those supply chain activities. In effect this mapping gives a complete picture of the **potential** emissions profile of the certified commodities. What will result is a likely quite lengthy table (for which an example template is provided at the end of this section).

Because the aim of this guidance is to align with the GHGP it is especially important that definitions of scope and boundary also fully align. In this way the information generated can be used confidently for climate disclosure and towards SBT. It is therefore recommended that members familiarize themselves with Chapter 6 of the GHGP [Scope 3 Standard](#).

Members will need to carefully consider this step and seek expertise, internally or externally to ensure a comprehensive mapping is produced. It is likely most efficient to draw on existing research and tools identified under Principle 1 or to begin from scratch and have an expert draft and to use identified research to sense check that there are no gaps. There are many such sources of information, including research, guidance and tools (some are referenced later in Element 3). Relying on credible partners can be a good way to make this output more efficient, though responsibility should still be taken in terms of checking completeness (for example by cross checking with experts).

In later Elements, members may decide that only a subset of the processes identified are relevant to their certification, but at this stage the intent is to understand the extent of all potential sources and sinks of emissions. It may be beneficial to share this mapping with stakeholders (i.e. those already identified and/or make publicly available), particularly suppliers and buyers who can help to ensure the list is fully realized and is aligned with their experiences. It will also need a process of regular review, in case for example practices or regulations change in a given market or geography. In doing so, members maximize the options available to them in later elements of this document.

Purchasing companies (i.e. the buyers of certified goods) are required per GHGP to report all emissions associated with activities within the Scope 3 boundary of their purchased goods. Within this category of emissions are included all processes associated with the production of purchased goods that represent a source of emissions. For reporting companies purchasing certified goods, the emissions associated with purchased goods includes all energy and land management processes associated with those goods, from cradle to gate.

"Cradle-to-gate emissions include all emissions that occur in the life cycle of purchased products, up to the point of receipt by the reporting company" ([Greenhouse Gas Protocol, Scope 3 Standard P38](#))

Thus, a retailer selling consumer goods will account for all emissions associated with those goods as they pass through the supply chain. To them, nearly all emissions are 'upstream'. The way a company does this is to bring together a wide range of information sources that in summation confirm their total emissions. Many ISEAL members will not necessarily certify processes throughout the entire supply chain up to the point of receipt, but rather only those associated with certain steps or tiers, such as at the production unit level, processing, transport and packaging. This means that the receiving company may of course be a further intermediary, such as the producer of consumer goods that ultimately sells their product on to retailers. The member may wish to include these producers in the GHG-RS approach, but the guidance herein is limited to the production, processing, packaging and transport of raw commodities only.

To assist companies to use the information accurately, it is critical to define the boundary of emissions accounting within the member scheme. In other words, where does the accounting of emissions start and more importantly stop, in order to allow purchasing companies to supplement this with information from outside the member's GHG-RS for processes that are not included.

There are two parts to this:

1 – which steps in the supply chain are included and excluded; production, processing, packaging and transport, (or any further that are part of the scope of the member)

As with Principle 2, it is generally recommended that all steps in the supply chain that are covered by certification should be included in the GHG-RS, though any that are excluded should be transparently explained. This will allow purchasing companies to supplement the information and resolve any gaps. It is recommended though, that as a minimum, members include to 'farm

gate' (or equivalent in forestry, marine and aquaculture) emissions associated with production and strongly consider including processing, transport and packaging.

Of course, each step included will require the outputs of later elements in this guidance to cover them. It may therefore be that steps are included over time, as the GHG-RS builds. For example, a member may begin their GHG-RS focusing on the point of production and add further steps over time. As with Principle 1 it is important that this is transparently communicated, and a timeline and regular updates shared with stakeholders. It is especially important to convey what is being certified and any limitations in this regard to prevent over-claiming.

It is recommended that at a minimum the production unit boundary is included within the GHG-RS. The following steps are recommended:

- 1 – Crop or animal product production (i.e. at the production unit level)
- 2 – Transport (i.e. for processing and retail)
- 3 – Processing (i.e. refining and processing of crop/animal product for consumption)
- 4 – Packaging (i.e. the packaging of goods for further purchase and retail)

It is noted that 2-4 above may not be under the direct control of the producer, further explored in later elements. They may also not be in the above order and may include repeat steps (for example transport for refining and onward transport for packaging and retail).

2 – for each included commodity (see Principle 1), broken down further by included supply chain step, identify which energy processes and land-based or marine emissions sources/sinks are included and excluded

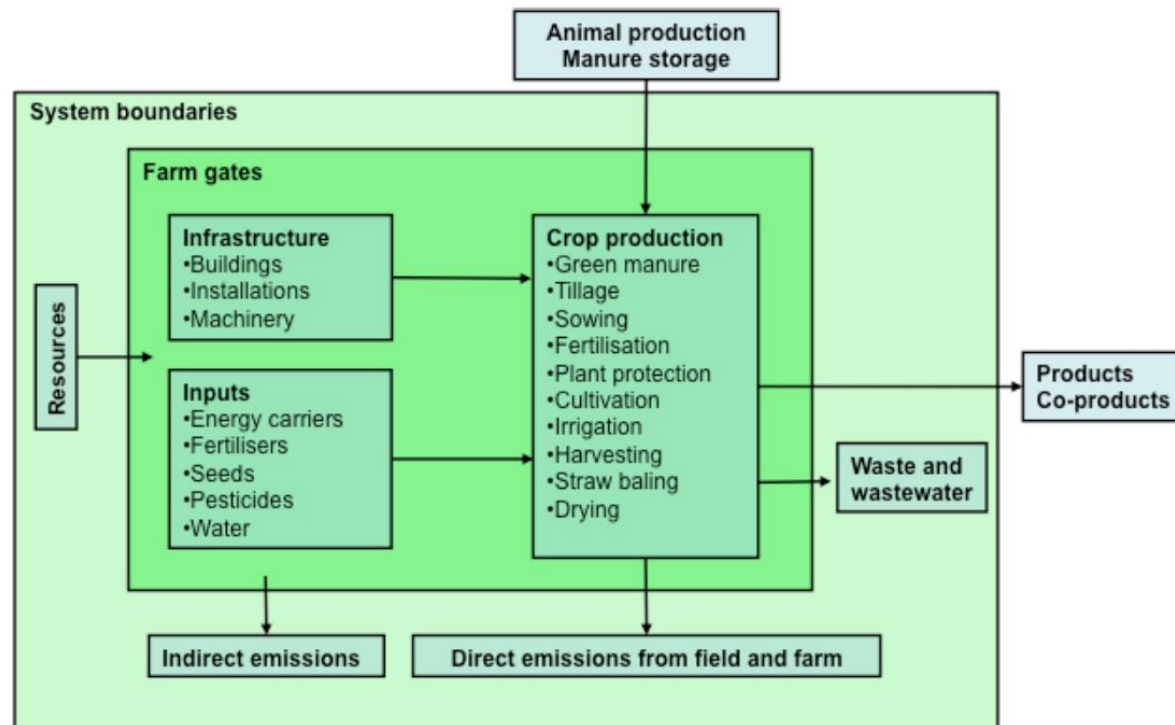
For some ISEAL members the production processes themselves are not necessarily the scope of certification of the member schemes, but the producer and production unit are. For others the standard applied may be a process-based approach that, as a bundle of processes in summation, lead to sustainable production. In both cases it should not be assumed that the scope of certification naturally captures or mirrors the scope of emissions. Members will need to carefully consider what is part of their certification and what is not and transparently communicate this.

This means that information on processes included for example in the Production Unit may not exist via certification and hence need to be created for the first time through this process. The long list produced can be marked up transparently to show what is part of certification and what is not, though whether this is necessary is for the individual member to consider.

Responding to these two key questions is complex and may require additional expertise, but there are many sources available for the mapping of energy and land management emissions sources that align with GHGP. An excellent resource to start to unpack these questions is the [World Food LCA Database Methodological Guidance](#) Section 2.4 (Bengoa et al, 2014) which

provides guidance for the identification of scope and boundary at production unit level and for transport and infrastructure, summarized as follows (providing a useful guidance for identification of processes to be included):

Image 1 (excerpt from WFLDB, Bengoa et al 2014): Processes included in crop production (note that animal production and food processing included via link above):



The processes mapped in image 1, above, relate only to production, though similar diagrams within the guidance indicate boundaries for the other steps. They are a good place to start when identifying relevant processes, regardless of the commodities targeted, as they provide a useful framing structure to do so.

It may be that a member includes within their standards a requirement for processes that are not directly associated with production. For example, assistance to the domestic situation of producers or beyond farm gate conservation are both outside the direct purview of production and cannot be counted towards a Scope 3 inventory. This does not make them irrelevant, it simply means they need to be accounted and claimed separately. Such processes should be identified at this stage and a later element will explore what and how claims can be made.

It is likely that during this step that energy process and land-based emissions sources are identified that apply to some but not necessarily all producers or suppliers. It may also be that some vary based on various factors, such as geography, variety, climate or practice. This is inevitable and will be dealt with later. In such cases, it will be helpful make a note that the process is a variable so that it can be returned to it in Elements 2 and 3.

At the end of this section each member should have a list of included steps and processes for each commodity identified in Principle 1. This represents the inventory scope of the certified goods. Depending on choices made in later elements it may be that not all processes identified will be included in quantification and claims, see element 3 for further details.

Box 2: recognizing third party napping and data sets

For many commodities it may be possible to work with pre-existing data sets produced by industry bodies, civil society organizations or third party initiatives. Often these initiatives are intended to accelerate and bring consistency to efforts to track emissions and improve the quality of accounting in a given sector. The GHGP itself recognizes some [data sets](#), though they are not mandatory for use by reporting companies.

The key to using a third party data set is to take responsibility for its content. This means satisfying yourself that the processes, gases, geographies etc are relevant, transparent, complete, material and accurate, in line with the GHGP guiding principles themselves. This could be done in a number of ways, some of which may already have been carried out by the third party themselves:

- Engaging with the third party provider and asking what they consider to be missing from the system or if any improvements are being considered
- Cross-checking scope with feedback from within the member's system, for example feedback from producers
- Checking that geography, process and included gases are all clearly stated and then investigating whether any are missing by:
 - Reviewing the technical literature of the third party provider (may require some expertise)
 - Reviewing any similar gap assessment carried out by the provider themselves
 - Checking against other third party approaches for consistency

- Using approaches recognized by a credible body, such as GHGP (though responsibility still rests with the member)
- Checking that the data sets are maintained regularly and overseen by credible bodies/peers
- Seeking feedback from other users based on their experiences to date

Despite this, using a third-party approach is still likely to be more efficient than self-producing one, especially when you consider the ongoing maintenance of it. It may also benefit from a community of practice and opportunities for consultation. The risk, naturally, is that the approach is not under the direct control of the member, resulting in reputational risks and complexity should inconsistency arise. It may be possible for the member to supplement any concerns with the third party's approach, for example with add-ons or replacement elements for use in certification.

4. The GHG-RS should describe and explain:

- Which greenhouse gases are included and excluded along with rationale for the choices made
- How the gases apply to the processes identified in Principle 3, above

a. List of included and excluded greenhouse gases and rationale for any exclusions

b. Table detailing the gases relevant to each of the included processes.

Key checklist criteria:

- Does the mapping include for which greenhouse gases are relevant to the identified steps and processes? Is this referenced back to credible sources of information?
- For any excluded gases is there a clear rationale?

Credibility indicators:

High credibility: this should represent a relatively straightforward step, based on publicly available information or input from experts. If using third party research then it is likely that this step will be already be taken care of, though this should still be checked. The key for members is to capture a comprehensive list and be transparent over any exclusions, especially those that are material/significant emissions. High credibility indicators include:

- No material exclusions of greenhouse gases
- Reference to latest IPCC Assessment Report (IPCC-AR) and a requirement that latest IPCC-AR is applicable should it change in future

Potential areas of concern: as it is a simple step the main area of concerns to avoid in this principle concern inadvertently leaving out relevant gases or failing to adequately explain any exclusions. This will ultimately be harmful to the reputation of the member and hence care should be taken to be transparent if any exclusions are made. It is particularly important to include (or clearly explain exclusions) for gases that are significant.

Guidance:

We have so far identified the users and uses, targeted commodities and applicable standards, identified the supply chain steps included and the processes representing sources and sinks of emissions within them. This gives us a thorough mapping of activities and processes that make up the scope and boundary of the GHG-RS. This in turn can pave the way towards completing a Life Cycle Assessment (LCA) and beyond to more detailed Lifecycle Inventories (see Elements 2 and 3) of the certified commodities or to target specific processes for improvement, further explored in Element 3.

To be able to conduct an LCA and enable a more detailed Lifecycle Inventory (LCI) we require a further piece of information, namely which greenhouse gases are included and how do they apply to each of the steps and processes defined in principle 2, above.

Greenhouse gases and their 'Global Warming Potentials' (GWPs) are considered in regular Assessment Reports issued by the Intergovernmental Panel on Climate Change (IPCC). The latest published report at time of writing is [AR5](#) (2014) with AR6 due 2022. GHGP recommends that organizations mirror the latest IPCC report and provided its [own synthesis](#) that is recommended for use in the context of ISEAL member systems. Hence, for each step and process identified so far, it is recommended that a list of 'material gases' (i.e. those that are emitted in significant/material volumes) be ascribed to each. This may require some expert assistance, though lists of typically relevant gases are likely to be found in the same environmental scan research undertaken in Principle 1.

If any gases are to be excluded from the GHG-RS this should be transparently noted and explained. There are few, if any, reasons to exclude material/significant gases from this process, however.

By the conclusion of this element it is likely that the member has thoughtfully recognized a third party data set or created a lengthy document or spreadsheet that details, by commodity, which supply chain steps, which processes, sources and sinks of emissions are relevant and which gases are relevant to each. This is the overall picture of the potential emissions profile of the certified goods, though which and how they are further quantified and reported will depend on later elements. A simple way to present this could be as follows:

Image 2: suggested structure for presentation of emissions

Category of emissions	Included processes	Relevant gases
Commodity (for e.g. coffee, timber, fish)		
Production	Energy process 1	CO ₂ , N ₂ O
	Energy process 2	Etc
	Land management process 1	..
	Land management process 2	..
Processing	Etc	..
Transport
Packaging

Element 2: Definition and scope of accounting approach

Description and purpose of element: This element builds on the robust mapping of Element 1 and describes how emissions accounting will be carried out, including how supplier information is stratified (for example by variety, practice, country, geography or climate) and how the emissions information will be accounted and presented.

Its main focus is to describe the structural approach options in terms of who in the system is responsible for quantification and using which tools. It begins the process of understanding how to generally account for emissions and how to account for improvements made by individual or groups of producers. This Element is not focused on the act of quantification itself (i.e. methodologically), but rather on how the system is set up and how decisions were made that lead to quantification approach decisions in Element 3.

Principles	Recommended outputs
1. The GHG-RS should explain which producers are included and how they are stratified for the purposes of accounting.	a. For each commodity included per Element 1: Description of producers included and how they are stratified, along with rationale for same.
Key checklist criteria: <ul style="list-style-type: none">Does the GHG-RS state which producers or groups of producers (for example by type or region) are included?	Credibility guidance: <p>High credibility: In Element 1 the commodities targeted were stated and the processes and gases involved in their production mapped out. This principle takes this further by taking the generic, global mapping of processes and making it</p>

And does it state if approaches are mandatory or optional?

- Does the GHG-RS consider how different 'strata' of suppliers may generate different emissions profiles based on their circumstances, context, practices and technologies?
- Is this stratification explained and justified, by reference to the difference in characteristics and how this could influence the emissions profile of suppliers?
- Are there any characteristics that could influence emissions profiles that have been excluded? If so, is the rationale sound?

more specific. Two suppliers may include the same process (i.e. source or sink of emissions) but one could have a very high level and the other very low. The cause of this could be down to choices made or it could relate to input characteristics and practices. It is most credible to have considered the variables that can affect the major sources and sinks of emissions and take this into account when building approaches in later elements. A credible approach will include a long list of potential strata and variables and a consideration of their potential impact and materiality. From this a short list of key variables can be built and thus a proposed stratification, ultimately leading to more accurate and credible inventories. Indicators of credibility include:

- A thoughtful consideration of the key variables that potentially affect the emissions profiles of producers, based on their feedback, expert input and peer review literature where necessary.
- An extrapolation of variables to inform stratification of producers by key variable characteristics (while key input variables, such as size of production unit, type of crop can still be including as variables)

Areas of potential concern: the main pitfalls at this stage concern uncredible application of global or general approaches and ignoring the potential for specificity. The best way to

resolve this is to stratify based on those variables that most effect emissions. Alternatively, though not as credibly, is to apply the same emissions to all suppliers but to make this more conservative (i.e. take the highest emission profile based on all variables and apply it to every producer) than the impact of potential variability. This likely loses opportunities and would not be credible for land-based emissions especially. Indicators of potential concern would include:

- A failure to recognize the variables that make a difference to overall emissions data outputs.
- A failure to ensure conservative estimates where more robust stratification cannot be provided.
-

Guidance:

The output of Element 1 was to state which commodities were to be targeted and unpack this through a comprehensive mapping of commodities, supply chain steps, processes and gases that could be included in the GHG-RS. This mapping will be an essential component of decision making in later elements and ultimately assists in reaching a robust and comprehensive GHG-RS. It is though, taken on its own merits, a hypothetical mapping conducted at a global level, likely based on existing research and stakeholder feedback. To make robust GHG estimates at the producer or even sourcing area level, it is important that the GHG-RS also takes into account how that mapping varies due to factors such as location, climate, practice, variety etc. Otherwise the ultimately reported figures will not be as accurate as they can be and would be subject to challenge should someone scrutinize specific suppliers, where a potential mismatch may be apparent.

In this sense we are trying to focus on how to produce an LCI for specific commodities, as an output of the wider LCA processes, see Box 3, below.

Box 3: LCA vs LCI

The term 'Life Cycle Assessment' refers to the overall act of mapping and modelling emissions, a process an organization can go through to create a 'Life Cycle Inventory'. The latter represents the data collection aspect of an LCA and results in emissions data that can be used to inform credible emissions intensity and ultimately Emissions Factors for use in reporting.

Part of an LCA approach is to model the profile of emissions in a product and how these can vary depending on different characteristics. Some of these variables will be input related, for example type of crop, size of production unit, climate, soil type etc. Others may be practice based, such as method of tillage. It can be difficult to assess how to stratify producers based on variables, but the best way to think about this is to focus on variables which have a fundamental impact on emissions profile and those which further dictate scale. For example, strata based on climate and soil type may be helpful, allowing producers to then input size of plot or practices. The other way around would not work so well as size of plot isn't dependent on climate.

This guidance is based on an LCA process flow with the aim of as accurate as possible LCI outputs. As will be seen later in this document, it is possible to have fully bespoke LCIs that are specific to individual producers or more likely stratified LCIs that are generalized over a population but that still then allow user inputs to be considered.

It is therefore important to take account of such potentially impactful variables and to use this to inform both a stratification of suppliers identify variables where user input is likely to be needed. It may be that a commodity is produced in a way that is completely globally homogenous and hence there is no further need to stratify. This is unlikely in the context of crop and animal produce due to their relationships to land and marine processes.

Stratification can assist with accuracy of accounting because it can take the generic commodities, steps and processes included in Element 1 and further refine them according to characteristics that may influence results. Element 1 indicated that variables are likely to already be identifiable during the mapping, either because they only apply to a subset of producers for example or because they apply to all but vary greatly. The following represent possible strata (non-exhaustive) along which to categorize producers/steps:

1. Geographic: Country, sub-national region or landscape
2. Physical: climate, hydrology, soil type, seasonality
3. Variety and rotation of produce
4. Production practices

Members should review the commodities included and the steps/processes identified in Element 1 to assess which of the above variables may materially influence emissions. The research conducted in Element 1 may already have identified a number of strata and peer review research is generally a good way to go about this, as is consulting with experts and with producers/suppliers.

In most cases, it is likely that all four will have some influence and that combinations of strata, such as geography and variety for example, are material. Care should be taken over the inter-relationships between strata therefore, for example soil type may have a major influence and be amplified by climate or hydrology. In later elements this could mean a different methodological approach for quantification or alternatively a global approach that includes for variables, for example a tool with a drop down menu that adjusts overall results by characteristic. A good example of this would be the [Cool Farm Tool](#), which allows for user input of key variables to build up a picture of, in this case, a farm emissions profile.

It is noted that the key steps described in Element 1 Principle 2 may be especially influenced by geography. For example, transport to processing or onwards to retail will be influenced by where the goods were produced (as this may influence the distance and modality for transport). Accordingly, it is essential therefore that geography of sourcing is included at the most granular and specific level feasible. Global market-based approaches will find it difficult to ascribe accurate and credible transport emissions (as well as other emissions that are associated with geography) unless they assume the most conservative (i.e. longest journeys) and apply to all producers.

2. The GHG-RS should describe, based on the included processes described in Element 1, which accounting approach(es) will be followed.

a. Description of accounting approach(es) followed, along with rationale for same, broken down by energy and land-based emissions.

Key checklist criteria:

- Does the GHG-RS describe how the accounting of emissions will occur, based on the mapping conducted to date? In particular a description of whether

Credibility indicators:

High credibility: this should represent both a relatively simple inclusion in the GHG-RS but perhaps the most complex to decide upon. Essentially it represents a decision on how the

quantification will be via a generalized or direct supplier approach or will both options be available?

- Where a generalized approach is offered, does the GHG-RS allow for an option of direct supplier approaches and if so what pre-conditions are in place to do so? Does this reflect the existence of chain of custody?
- Does the GHG-RS allow for improvements to be made to Emissions Factors? If so is the interventions-based option robustly safeguarded and explicitly linked to the Value Chain Interventions Guidance?
- Does the GHG-RS describe how this is applied across the included commodities and strata, if the approach is not universal?

system is designed for quantification, influenced by the level of traceability. There is no 'one size fits all' here, some systems will be best suited to the standard having a central tool that everyone uses, whilst others will have the capacity to allow certificate holders to put forward their own approaches. The most credible option is the one that makes most sense in the context of the capacity and context of the system itself, though the more specific and comprehensive the approach the more credible it will be. Indicators of high credibility include:

- The use of an LCA/LCI-based approach or tool that includes all major sources and sinks of emissions and can cope with the variables identified in previous principle
- Either fully traceable commodities and the application of a direct supplier accounting approach OR the use of a robust interventions-based approach
- Clarity on how improvements can be made by individual or groups of producers and how this would be accounted for

Areas of potential concern: rather than a credibility issue, the main risk with this decision is choosing an approach that is inappropriate for the system applied. For example, giving a mandate to certificate holders to put forward their own methodology where those stakeholders do not have the

necessary capacity to do so. Hence the main consideration in this principle is to conduct a thoughtful process to best consider this, including speaking with stakeholders such as certificate holders and verifiers. Indicators of concern may include:

- A mis-match between traceability and accounting approach
- A poorly designed interventions-based approach that does not respect the need for causality and avoidance of double counting

Guidance:

This section describes the main accounting approaches available to ISEAL members and their certificate holders. The choices made in this Element build off previous and will greatly influence later Elements, particularly concerning quantification approaches (Element 3) and assurance (Element 5). The main questions that this section seeks to address are:

- How do certificate holders generate Emissions Factors (in part or in full)?
- How are improvements made by certificate holders that affect the Emissions Factor accounted?

There are many ways to approach these questions. It is recommended in the first instance that Chapter 7 ('Collecting Data') of the [GHGP Scope 3 Standard](#) and the chapter 'Category 1: Purchased Goods and Services' of the [GHGP Scope 3 Guidance](#) are carefully reviewed and explicitly referenced in the GHG-RS.

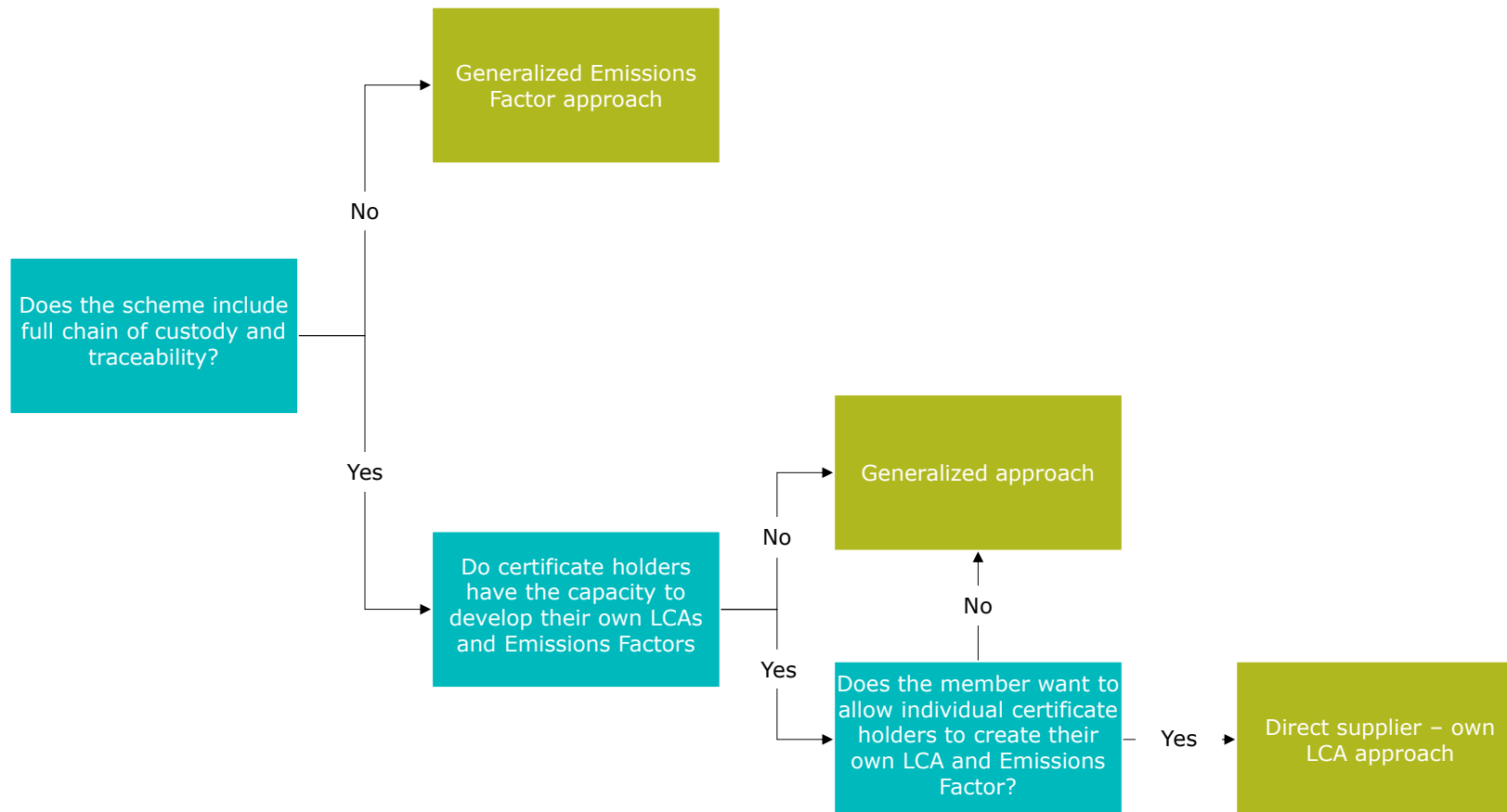
Generalized vs Direct supply approach for Emissions Factors

There are two main ways that a certificate holder may create or be assigned an Emissions Factor:

1. **Generalized approach for Emissions Factor creation:** Certificate holders apply a standardized Emissions Factor, supplied by the member's scheme or by reference to a third party. This would likely be built generically and then using a sample-based approach to calculate an average Emissions Factor each supplier can use (such as the guided by the World Food Lab Database approach, see earlier in this document). There is little scope for tailoring the Emissions Factor in this model.
2. **Direct supplier approach for Emissions Factor creation:** Certificate holders are allowed to create their own Emissions Factors either based on a centralized tool (with input variables) or recognized methodology that allows for activity inputs (such as area, physical conditions, yield) or based on their own tools, methodologies and data sets

It is possible that both these options can exist within a GHG-RS, for example allowing the use of a generalized Emissions Factor that is easily accessible but with flexibility for producers to choose their own approach. The choice between these represents a choice on the level of flexibility the member is prepared to allow within the GHG-RS, with the latter option especially potentially resulting in greater accuracy but also greater inconsistency with other certificate holders. It is also a choice that reflects the relative capacities within the system, especially for certificate holders and assurance providers and also the level of traceability within the system.

Image 3: decision making regarding direct or generalized approaches to accounting



Element 4 explores further how users of emissions data can be allowed to make claims about them. In effect the use of a direct supplier approach requires chain of custody/traceability to be in place to allow buyers of that producer's commodities to report its specific Emissions Factor. This is a key provision of GHGP as it prevents buyers of commodities 'cherry picking' lower emission producers when in fact it cannot be demonstrated that they purchased goods from them. Hence the key factors in choosing between these approaches is likely to be whether chain of custody exists or not (which affords optional access to the

direct supplier approach) and the level of capacity and accessibility needed. Even where full chain of custody exists it is still likely desirable to provide a generalized approach for certificate holders to use.

Accounting for beneficial improvements to Emissions Factors at the producer level

The second key choice to be made is how to account for beneficial improvements made by specific certificate holders. It is likely that companies purchasing goods will seek to work with producers to improve processes that lead to reduce emissions. In the direct supplier accounting model and where full chain of custody exists, this can be a straightforward case of updating the processes within the overall Emissions Factor and then reporting it accordingly. This is because physical accounting for actual goods purchased is in place and it would be credible to report the lower emissions that result.

Whilst the physical accounting principle of GHGP is essential to credibility, it may also disincentivize action by effectively making it impossible to report the benefits achieved. This becomes a fine line of credibility vs action, given that full traceability may be five to ten years away in some supply chains, meaning action could not be incentivized until it is already too late to mitigate the climate emergency.

A second option therefore is to apply an 'interventions-based approach' to incentivizing, accounting and reporting improvements that result in a lower emissions profile. Interventions are defined as any action taken by certificate holders to improve the emissions profile of targeted processes that result in an overall improvement to their Emissions Factor. This could be self-driven, for example as a competitive differentiation or it could be by working in partnership with buyers who support the work carried out. Both accounting approaches afford these possibilities, with chain of custody being the key differentiator on approach:

- As noted above, where chain of custody exists then the Emissions Factor of a specific producer or group of producers can simply be adjusted to include for the improvements made. This likely means updating the emissions associated with specific targeted processes with the affect of lowering the overall Emissions Factor. Where **chain of custody exists** and as explored further in Element 4, buyers of commodities from targeted producers can potentially report the new Emissions Factor or improved processes. In this case the following are noted as key safeguarding issues:
 - Where an intervention improves the efficiency of processes or of productivity then any disbenefit to other processes should be accounted for also. It is not credible to update processes with improvements made but not to account for any negative impact on other processes needed to enable the change.
 - Improvements generally should be subject to a higher level of data quality requirement and assurance, see Elements 3 and 5 respectively
- Where **chain of custody does not exist** then the Emissions Factor could be improved using an interventions-based accounting approach. In this model it is possible to ***assume*** that the producer supplied the company, via a concept known as 'supply shed'. In effect this means that a purchasing company can work with specific producers and, even though chain of custody does not exist, take advantage of the improvements made towards their inventory. The intervention approach is only appropriate where:
 - Where an intervention improves the efficiency of processes or of productivity then any disbenefit to other processes should be accounted for also. It is not credible to update processes with improvements made but not to account for any negative impact on other processes needed to enable the change.
 - An improvement is being made over previous practices (i.e. there are targeted improvements to emissions processes) such that an improved Emissions Factor results AND

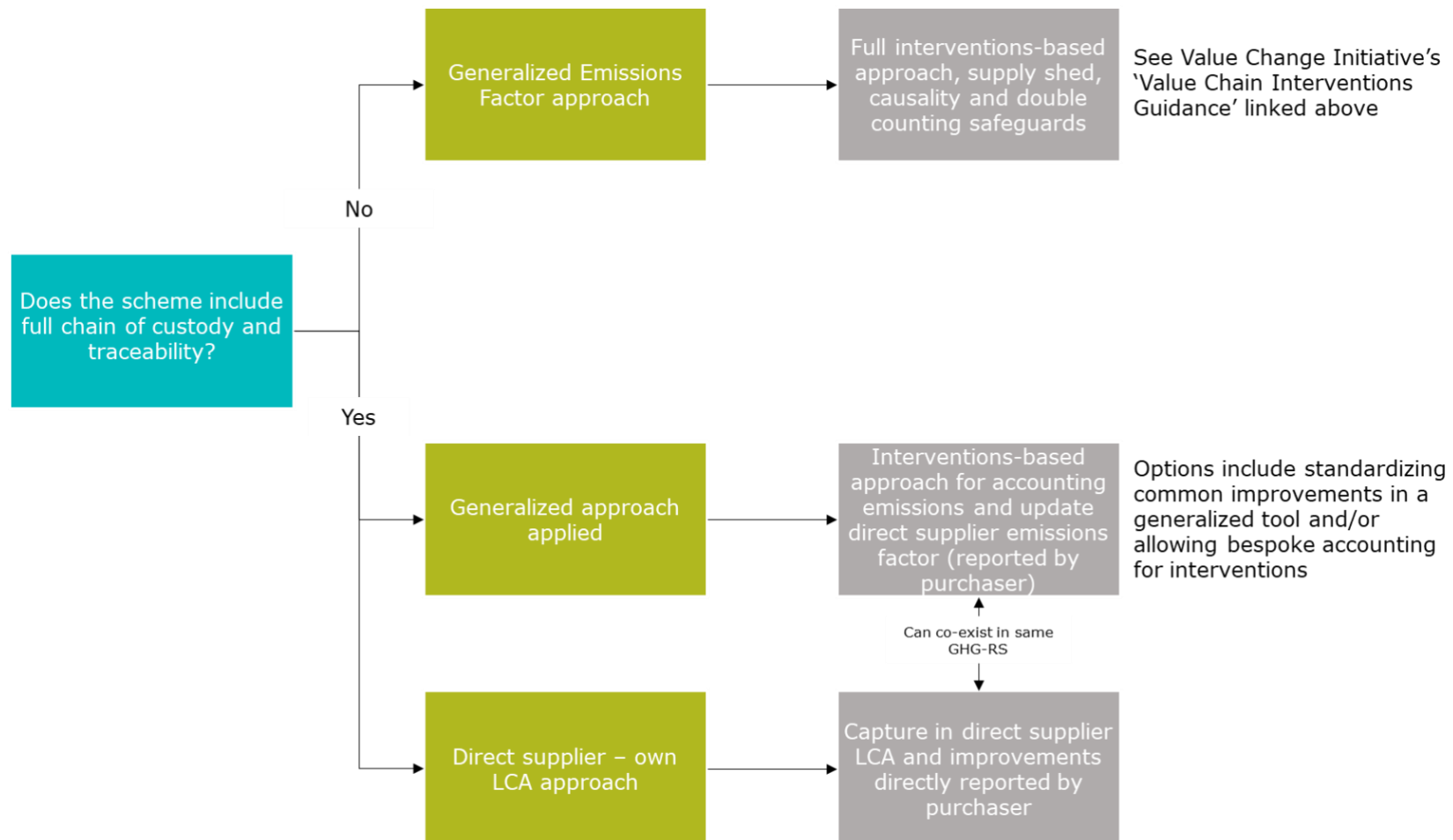
- Causality is proven wherein the reporting company can clearly demonstrate that they caused the improvement to occur, for example through preferential procurement, finance or premiums AND
- A high-quality quantification and assurance approach is in place and improvements are assured

This option requires care in set up as credibility, especially around weak causality and risks of double counting can be incurred. Further guidance on intervention-based accounting has been developed under the [Value Change Initiative](#) and, as noted previously it could (and in most cases should) be used in conjunction with a full LCA. It is likely that an intervention-based approach, if allowed in the GHG-RS, would require expert support to develop and should be in line with the Value Chain Interventions Guidance (noting that equivalent guidance for land-based emissions does not yet exist). It may also require expert support at the individual producer and purchaser level in order to apply it well.

One potential way to do this where a generalized approach is being applied, is to pre-develop a range of possible intervention scenarios, i.e. processes or groups of processes that are optionally but regularly targeted for improvement. The GHG-RS could then ascribe methodological approaches or even recognize or create pre-populated tools for these such that certificate holders could use them 'off the shelf'. In this way producers may find it easier to follow common improvements and, the GHG-RS could still allow for innovation by enabling bespoke interventions for actions that are not standardized.

This is explored further in Elements 3 and 4.

Image 4: decision making for interventions-based approaches



It is noted that at the time of writing the GHGP is exploring the role of carbon removals associated with biogenic sequestration, as related to Scope 3 accounting. It is not yet fully clear if or how the 'supply shed' concept will be available in this regard and hence members are advised to follow the published version of the Scope 3 Standard (wherein removals may be reported, but separately to the emissions inventory).

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Element 3: Approaches for quantifying emissions data

Description and purpose of element: This element describes, in tandem with Elements 1 and 2, how the actual quantification and accounting of emissions is carried out, in line with good practice. In effect it takes on the mapping undertaken in Element 1 and the structural decisions applied in Element 2 and guides members towards appropriate approaches to quantify the emissions associated with them.

Quantification for general emissions reporting, in the context of LCA/LCI-based approaches are described, as are more rigorous approaches for the purpose of interventions-based accounting.

Principles

1. The GHG-RS should describe the methodological approach to accounting and quantifying emissions for each of the processes described in Element 1 and structure in Element 2 (energy process, land management processes and any activities not within the production boundary)

Recommended outputs

- a. An overall description of the accounting and quantification approaches applied to calculating emissions for energy process, land management and any additional activities not associated with production.
- b. For any accounting approaches that require baseline emissions calculations (see guidance, below and in Element 2) state clearly the baseline definitions or how baseline definitions will be credibly defined by others in the system.

- c. A table of data sources are to be applied for each of the inputs necessary to calculate emissions (including baselines, where necessary) for all processes described in Element 1 – 2.c.
- d. For each data input a table that describes the data source, frequency, sampling and quality control for monitoring reporting and update
- e. An approach to calculating and communicating uncertainty in calculations
- f. An approach to ongoing monitoring, reporting (MRV) and verification of results

Guidance:

The approach to accounting, quantification and MRV will depend on the choices made in Principles 1-3 as these determine scope, boundary and approach to accounting. This section first describes approaches for the creation or recognition of LCA-

based approaches (whether via a centralized tool within the system or through accounting directly by suppliers or a combination of the two) in part or in full. Secondly it goes on to describe how improvements that result in lower emissions should be accounted, quantified and monitored as this is likely to be desirable to many stakeholders. This guidance does not seek to 're-invent the wheel' and thus recommends a list of resources that could be applied to these purposes, except in the case of interventions which are defined in Annex B.

In Element 2 the main options for accounting were explored, namely a generalized approach vs direct supply (including the use of a centralized tool). All options are therefore built upon a robust LCA/LCI, either produced by the member or by reference to third party tools.

Element 2 also described the use of different approaches to allow certificate holders to make improvements to their Emissions Factor, either by making direct adjustments in the case of chain of custody/traceability being in place or by an interventions-based approach. The following provides a brief synthesis of approaches to develop each of these options.

LCA development towards an LCI

LCAs are the pre-eminent method for developing an LCI and ultimately Emissions Factor for commodities. They can be created using centralized tools and approaches and then applied by individual suppliers (i.e. the 'centralized approach' described in Element 2 or they could be created by individual producers where capacity exists. Based on the mapping created in Element 1, an LCA could be full (i.e. ascribe emissions data to each source or sink of emissions identified) or partial (i.e. ascribe only to processes covered by the scope of certification).

It is generally recommended that a full LCA be applied such that the resultant LCI and Emissions Factors produced are most credible. This is a choice of each individual member, however, though it is noted that in the case of a partial LCA approach this should be transparently communicated such that users of the information do not overstate the role of the member or of certification of same. Members may wish to consider whether their scope of certification matches the scope of an LCA, such that the LCA itself becomes part of certification. Alternatively the scope of certification could simply be to apply the tools available.

This should be considered in light of both energy process emissions and land or marine-based emissions. For energy process the choice can be weighed as follows:

- **Full LCA and LCI output:** most comprehensive and credible and has greatest flexibility of application by purchasing companies. It is also likely more expensive and time consuming to produce and update. It likely requires expertise to produce, particularly if converting into a tool that allows different variables to be incorporated (or reliance on a third party tool may be feasible, if comprehensive)
- **Partial LCA for targeted processes:** less comprehensive and relies on the purchaser to complete the picture with their own quantifications of processes not covered. Is likely quicker and cheaper to produce. Producing a bespoke approach may require some expertise, though methodological approaches for the quantification of single processes may exist more readily.

In effect this decision is about the extent of the scope of the GHG-RS. This does not influence the scope of what a reporting company should include, hence the less the GHG-RS covers the more the purchasing company will need to supplement with their own information, which in turn may impact how much can be said about the certified status of the data. This can be especially challenging if only relatively few of the processes and emissions are covered in the GHG-RS as, in effect, it means

the purchasing company will not be reporting the majority of emissions according to the ISEAL member's approach. Hence it is generally recommended to include for as many processes as possible, ideally a full LCA-based approach.

It is also possible to follow a full LCA approach, such that all identified processes are included, but to target specific processes to a greater level of accuracy, for example those that are most material and significant. This can effectively bridge the gap for members that would like to follow a full LCA but are concerned about the cost of assessing all emissions to the same level.

The choice made here will influence the modality of Assurance covered in Element 5. Of particular note is that a direct supplier LCA should be subject to direct assurance, whereas a centralized approach may not require that level of specificity in assurance. This is because a bespoke LCA produced by individual producers could result in a lower overall emissions profile being reported but in reality it is the accuracy of reporting that has made the difference, rather than there being any great improvement made.

Producing an LCA and calculating an LCI and Emissions Factor

LCA is a mature profession and there are many credible guides for the creation of an LCA and many third-party tools that have pre-populated LCI datasets that could be selected. Hence this guidance does not further detail this aspect. Below is a list of sources that could be applied though it is not intended to be exhaustive nor sector specific. It is recommended that each member selects the most appropriate for their purposes and context from either the list below or an equivalently identified list. A good way to assess guidance or tools is to compare to the mapping created in Elements 1 and 2 and against the guiding principles of this document. Key characteristics to also consider are stated adherence to the GHGP approach, authorship by reputable experts and organizations, peer review of data and how up to date the approach is (and how it is kept up to date of course).

If unsure of the credibility of a third party LCA approach, the member could put it to stakeholder consultation and expert review.

This guidance is specifically focused on life cycle emissions associated with raw commodity production, processing, packaging and transport, though if members include further steps then the above references should assist. The LCA approach should also reflect the stratification conducted in Element 2, which was to identify the key variables that impact the emissions profile in order to produce a robust LCI and Emissions Factor. The following represent an initial list of relevant guidance that could be applied to the creation of an LCA. It is recommended that the GHGP Product Life Cycle Standard be applied as the base approach, as applied to the steps of production, processing, packaging and transport.

- The Greenhouse Gas Protocol standards and guidance include many references to useful LCA approaches and data sets. Of particular interest are:
 - The [Scope 3 Standard](#)
 - The [Scope 3 Guidance](#) (particularly for Category 1, though other categories such as Transport will have useful elements to consider)
 - The [Product Life Cycle Standard](#)
 - [‘Built-on’ Greenhouse Gas Protocol guidances](#) are written by third parties and recognized by GHGP. These often target specific sectors or issues and thus provide inspiration and tools.
 - GHGP publishes a list of [third party data sets](#) that may be a useful match for specific members

- Third party guidance and sources recommended to consider include:
 - [World Food Lab Database: Methodological Guidelines for the Lifecycle Inventory of Agricultural Products](#) (Bengoa et al 2014). Represents an excellent resource likely relevant to most ISEAL members or a good structure to follow where the commodity is not agricultural related.
 - Others to be added – Gold Standard welcomes suggestions from consultees

The same approach to assessing life cycle emissions generally can be used to assess the variable options according to strata, for example the difference caused by variety or practice. In effect multiple LCAs are produced according to the different variables and combinations. Again, members may wish to create or endorse a tool to manage this complexity. For producers conducting their own LCA and creating an LCI and Emissions Factor this is not an issue as the variables are built-in.

From these LCA approaches and LCI outputs an Emissions Factors can then be calculated by, simplistically, dividing emissions by yield to produce an emissions intensity per unit of commodity. For third party tools this may already have been 'built in' such that an Emissions Factor is presented de facto, likely based on sampling of suppliers. It is generally recommended that this is conducted at the individual supplier level as this will result in the most accurate emissions intensity calculation. However, because a company's ability to report will depend on chain of custody it may not be possible to carry this information through. In the context of a centralized, generalized Emissions Factor approach, yield may therefore need to be on a sample-basis and applied across a group of suppliers and to commodities, such that each users the same Emissions Factor. The World Food Lab Database contains excellent guidance on such sampling approaches, as do the GHGP documents.

It is recommended that on site audits assess data inputs and data quality for variables identified. It is also recommended that LCIs are constantly monitored for improvement opportunities. There is no minimum timeline for a formal update for an LCI and this decision may be driven by any significant developments or discoveries during the process of administering the GHG-RS.

The Paris Agreement represents a five year reporting cycle and this is a reasonable minimum time frame for consideration in terms of planned review and update of LCIs and Emissions Factors.

Accounting for improvements - Intervention-based approaches and process improvements under direct supply

Element 2 briefly touched upon the possibility of applying an interventions-based approach to overcome the barriers of lack of chain of custody and traceability. In effect it allows buyers to assume they are being supplied by specific producers in order to claim improvements made, subject to credibility pre-conditions. For the direct supply approach, i.e. where chain of custody exists there is technically no need for these safeguards as any improvements can simply be reported as normal practice. That said, many of the good practice guidance is useful to apply as it ensures quality of data that can be useful to all.

There are two main sources of guidance for this section:

1. Interventions-based approaches generally, including key safeguards, are captured in the Gold Standard Value Change [Interventions Guidance](#). It was written with direct reference to GHGP and will ultimately seek 'built on' status. It is largely relevant to the intervention-based model where chain of custody is not feasible. That said, some of the key elements are relevant also to direct supply and this is marked in the key elements to consider in the approach:
 - That intervention results should be robustly quantified and assured (both approaches)

- Improvements should be compared and demonstrated against a pre-intervention baseline, not for accounting purposes but to avoid the possibility that an improvement is reported based on an accounting improvement but not an actual change
- The suppliers should be associated with the buyer, via a supply shed (i.e. there is the possibility that they supplied the buyer, according to an economic or physical market – relevant to both approaches, though this chain of custody fully resolves this)
- The user of the emissions data (i.e. the reporting company) should demonstrably cause the change to happen, for example through finance, preferential procurement or premiums (relevant only where chain of custody isn't feasible, though may be a useful consideration even in direct supply)
- Safeguards against double claiming exist (relevant only where chain of custody isn't feasible)

2. Of the above list the majority are covered within the referenced guidance and should be applied accordingly. One area that requires further detail however is how to quantify improvements, according to data quality principles. An approach to data and assessment quality for intervention-based approaches included in Annex B of this document. It is recommended for use as a starting point and working in conjunction with the overall Value Chain Interventions Guidance. It is recommended that aspects of data quality are also used in the context of the direct supply approach.

It may be possible to 'standardize' improvements that a supplier may make, with regards to calculating emissions. For example, a centralized LCA tool could include standard options for common improvements. This can be an efficient and consistent way to account for optional improvements. This approach is best used where improvements become commonly understood and data and exemplars exist. It is less conducive for innovation, due to its prescriptive nature and hence it is worthwhile considering also leaving an option for improvements to be included that are not common practice and require a bespoke approach to quantifying and assuring. In such cases it is important to include guidelines for data quality, such as those included in Annex B [to follow].

In the case of interventions-based accounting a five year cycle of attribution and review is again considered reasonable, in the absence of wider consensus on the matter. This means that intervention baselining and ongoing causality should be re-assessed.

Element 4: Approach to inventory reporting - attribution of data and role of causality

Description and purpose of element: This element describes how the system ensures that companies correctly report certified commodities that are relevant and associated with their supply, including how their purchases and choices may cause beneficial change.

Principles	Recommended outputs
<ol style="list-style-type: none"> 1. The GHG-RS should explain how emissions data can be attributed to companies purchasing certified goods, such that they can report them in their inventory. This could be via direct chain of custody/traceability or via a supply-shed/sourcing area approach. 2. The GHG-RS should describe how the information produced will be presented in order to be included by reporting companies. 	<ol style="list-style-type: none"> a. Description of data attribution models and conditions within system (there may be multiple approaches taken) according to decisions taken in earlier elements b. Description of tracking system approaches to ensure correct attribution is maintained c. Description of how information will be presented for use by reporting companies d. Description of how the information is ascribed to producers and certificates
Key checklist criteria	Credibility indicators
	<p>High credibility: the two key aspects for application of this element is to guide or prescribe ways for potential users of the</p>

- Does the system include and describe any credibility preconditions required for reporting companies to be able to use emissions data?
- Does the system reflect any attribution conditions, such as percentages of purchased goods and ingredients?
- Does the attribution system match decisions taken previously and include safeguards against cherry picking?
- Does the GHG-RS clearly outline how emissions data will be presented and whether it supports direct supply, facility and/or process substitution?
- Does the GHG-RS and data presentation make clear recommendations to purchasers on the correct use of the information and to safeguard (or recommend if not feasible) to not cherry pick information?

information towards credibility and to ensure allocation is true to the choices made so far. Higher credibility choices will include demands placed on purchasing companies to ensure they have their own credible targets and strategies in place and that allocation is made based on physical purchase or conservative allocation where this is not possible.

There are many ways for a company to absorb the information generated under the GHG-RS. This will depend on the GHG-RS itself (based on choices in previous elements) and on the starting point and context of the company. What is important is that the company use the information as intended and hence the GHG-RS should make data available transparency and make recommendations for its correct use. If possible, this should include pro-active safeguards in the standard. Indicators of credibility may include:

- Principled guidance for pre-conditions and practices that a company should demonstrate before being allowed to report the emissions data
- Approaches to presentation that can be linked back to users and use cases identified in Element 1 and that allow greatest flexibility.
- Advice to users on how to apply emissions data credibly and how to avoid cherry picking.

Areas of potential concern: the first and most egregious misuse of data by reporting companies is linked to making beneficial claims to improvements where they either cannot trace or credibly claim this benefit to their own inventory. The second is that the company can credibly do so but does not have its own house in order in terms of comprehensive and credible, science-based inventory targets.

The main concern with the incorporation of emissions data lie in intentional or accidental misuse. The main issue to avoid is companies selecting processes that represent an improvement over what they were already reporting but excluding those that are worse. This cherry picking is not credible and should be avoided, ideally as part of standards requirements if the scheme operates this way. The main indicators of poor approaches include:

- A lack of clarity and guidance on how emissions data can be used
- A restricted approach to presenting the information that does map to earlier identified user needs

Guidance:	
<p>This section considers when it is appropriate to attribute emissions data to a company to report the emissions associated with purchased certified goods. There are three key considerations:</p> <ol style="list-style-type: none">1. pre-conditions for reporting companies2. correct attribution of data according to choices made in previous elements3. Incorporating emissions information into corporate inventory reports <p>Reporting pre-conditions</p> <p>It is important that any reporting company claiming the emissions associated with certified goods are themselves a credible actor, particularly if the goods represent an improvement over non-certified or because of improvements made. This means that the reporting company should be aligning their wider climate strategies with good practices such that their claim to emissions information from ISEAL members is nested within an overall credible approach. This is especially important if the company is benefitting from an improved emissions profile, either because the member's standard leads to an improvement generally over non-certified goods or because the specific suppliers they work with are implementing improvement practices. This is because these benefits could be perceived to be allowing the purchasing company to make less effort elsewhere unless credible practices exist in the company more broadly.</p>	

This guidance does not seek to prescribe pre-conditions that ISEAL members may wish to adopt or recommend to their corporate stakeholders. Members often have, under their own licensing and certification requirements, clear and robust pre-conditions in place. It is generally recommended though that companies commit to following WWF's ['Corporate Blueprint for Climate and Nature'](#). Noting that the detailed implementation of this approach remains in development, the key considerations should be:

1. The company should have short and long-term Science-based Target that includes Scopes 1, 2 and 3 with no material exclusions. To encourage this, member's may wish to give their corporate community a time-limited window to align.
2. The company should have a zero (not net-zero) deforestation target, for example as envisaged under the [Accountability Framework](#)
3. The company should consider participating in [Science-based Targets for Nature](#), as appropriate to their business

Furthermore, as an optional requirement, members may wish to consider a requirement that the company pays its taxes in full. This is because, under the Paris Agreement, countries are committed to providing 100 billion dollars per year in Climate Finance. This number has fallen short in the initial years of the Paris Agreement and its funding, through a variety of ways, is likely to rely on taxation to a significant degree. Hence the avoidance of tax is a direct undermining of the goals of the Paris Agreement. It is acknowledged that this is of course a challenging condition to impose and is not likely to be in the mandate of most members to control. Hence this could be considered a guidance or pledged principle or perhaps including sanctions where companies are found to have egregiously or illegally avoided tax.

Finally, there are many practices that companies should adopt for ethical reasons, including living wages, health and safety and robust gender and anti-discrimination policies. This guidance limits itself to matters related to climate only, however.

Reporting emissions

Producing credible data is only half of the equation when it comes to emissions reporting. The second is to ensure that the data can be and is credibly attributed to companies and included accurately in reports by them. Having established pre-conditions that determine when a company should be allowed to use the data in the reporting, we now turn to how they would do so.

The first consideration is whether a company can report an Emissions Factor associated with either specific producers or a sourcing area. This is really a chain of custody and traceability question. Simply put, if a chain of custody exists then the buyer should report the Emissions Factor associated with the producers that supplied them. If a lower level of traceability exists then this should be reflected in what is reported.

There are two main options for how data can be incorporated, as follows:

- **Direct supply reporting** – where full chain of custody and traceability is in place, then the Emissions Factor produced can be used by the purchasing company, for that supplier, in part or in full. Any improvements made are naturally captured in reporting and do not require any further provisions, beyond data quality considerations.
- **Supply-shed reporting** – where a sourcing area is known and it is possible that the producer supplied the company, then the generalized Emissions Factor for that area can be used. Producer-specific Emissions Factors and any

improvements associated are only feasible where an interventions-based approach is also applied (requiring causality, double counting safeguards, higher rigour etc explored earlier in this document).

The use of a sourcing area/supply-shed allows the allocation and reporting of a more accurate Emissions Factor than a global application would. Hence if a company can be demonstrated to be purchasing from a given region then it makes sense to report the Emissions Factor for that region's suppliers. This ensures that, while full chain of custody does not exist, it is still a reasonable level of accuracy for reporting.

Supply-shed is also a concept used to enable beneficial action to be taken in collaboration between producers and buyers where chain of custody cannot be demonstrated. In effect it overcomes a critical barrier to action, namely that a company is disincentivized to act because the benefit of acting could not otherwise be counted towards an SBT. The use of the concept requires careful safeguarding, as described in Element 3, especially that there is clear causality between buyer and action and that double counting is safeguarded against. Further information can be found in the Gold Standard Value Chain Interventions Guidance. It should be noted that this guidance only applies to energy process emissions, with land-based emissions to be added or further developed pending conclusion of GHGP's work on this topic.

Incorporating Emissions information into reporting

Having established what can be reported, it is important now to consider how to incorporate the data into an inventory report. The influence of the choices made in previous principles is critical at this stage in how the information will be presented and used. This is important because buyers are likely to already be reporting purchased goods, but in a way that may not be

directly matched to the approaches in the GHG-RS. For example, the GHG-RS may be comprehensive of all steps and processes and include a full LCA-based approach. The buyer, however, may be using global default factors that are not broken down into individual processes and thus cannot be broken down in the same way.

It is the intention of the GHG-RS that the buying company, regardless of their reporting starting point, should be able to include the information generated by the GHG-RS in a credible way, but the way this is conducted will depend on the choices made so far. In the case of a full LCA the buyer could simply switch reporting of their previous approach and start reporting the full LCA. Alternatively, they could go through their own LCA and supplement with any processes in the GHG-RS that they weren't already capturing, or where the information in the GHG-RS is more accurate and credible than their own (and vice versa, if theirs is the more accurate and credible).

If the choice was made to only quantify certain processes, then their use will depend on how the purchasing company was accounting prior. For example, if the company has a full, detailed LCA then it may be possible to substitute out the processes included in the GHG-RS and substitute in the more accurate GHG-RS figures. Of course it is also possible that the company is purchasing the commodity for the first time, in which case no substitution is necessary and they could simply apply the facility or processes as part of a newly created line of reporting in their inventory.

- **Facility substitution** – substituting an entire Emission Factor (for each step or as a whole) for the one produced under the GHG-RS.
- **Process substitution** – substituting specific processes in an original Emission Factor for the ones produced under the GHG-RS. This could be direct substitution of processes or an assumption based on baseline.

The choice between these options is somewhat driven by previous choices. For example, a facility substitution model can only really be undertaken with a full LCA, otherwise a company would be substituting out more or less processes than they were reporting in the first place (thus rendering their reporting inaccurate). That said, members are recommended to use the most comprehensive option available to them and to recommend that in the case of process substitution that companies use all available processes and not cherry pick the ones that are an improvement on what they were already reporting.

One scenario that relies on process substitution is where the purchasing company was not using a full LCA, but rather reporting a default factor-based Emission Factor that was not broken down into specific processes. In this scenario substitution is more difficult as it would not be clear what to substitute out (though the processes in the GHG-RS could at least confirm the proportion of the original Emission Factor that was related to that process). One option to overcome this is included in 'Intervention' based accounting, detailed in the Gold Standard's Value Chain Initiative Guidance previously referenced.

This approach includes for scenarios where an improvement is made to one or several processes over what was happening prior. In this situation, a 'baseline Emission Factor' for that process could be produced as well as a post-intervention Emission Factor. The baseline could be substituted out from the buyers less granular Emission Factor and the post-intervention substituted back in, thus improving the overall picture. This is only feasible where a/ the purchase of certified goods can be seen to be the causal factor for the improvement and b/ either the supplier is fully traceable or can be reasonably assumed to have supplied the purchasing company (see Elements 3 and 4 for more detail).

Ultimately, whichever choice is made at this stage the most useful thing a member can provide is transparency. By including all steps and processes, broken down and quantified, then purchasing companies can make best use of the information according to their context and strategy. It cannot be entirely controlled how a buyer incorporates the information and every buyer will likely be starting from a different point. Hence it is important to make recommendations for credible use of information and make that information as transparently available as possible.

To assess whether a company can credibly report emissions information, attention is drawn to ISEAL's 'Claims Guidance'. Generally, it is noted that attribution of claim is in line with this Guidance but that supplier-specific information that is used to claim emissions from a specific supplier should carefully follow the guidance in this section to avoid cherry picking issues.

Finally, where a member includes for a percentage based approach to certified goods, for example where a company can claim the use of a member's brand provided they buy, say 30% certified goods, then that is the maximum percentage that the company report. The remaining 70% in this example should be reported according to however that is purchased and not use the member's GHG-RS approaches unless this happens to be the same emissions profile.

Element 5: Approach to assurance of GHG information

Description and purpose of element: This element describes how accounting and reporting in Elements 1 to 4 are assured and certified.

Principles	Recommended outputs
1. The GHG-RS should define the assurance approach taken and who in the scheme is responsible for assessing emissions accounting.	<p>a. An assurance system approach detailing how emissions accounting is assessed. This should include an overview of the approach taken and detail the roles and responsibilities within the system.</p> <p>b. Depending on the route taken in 1.a., above, an assurance checklist of key information to be assessed.</p>
Key criteria checklist: <ul style="list-style-type: none">Does the scope of assurance refer back to the intended users/uses of the information produced under the GHG-RS?Is there a clear statement of what is and is not assured and/or certified under the GHG-RS and in relation to which standards?	Credibility indicators <p>High credibility: ISEAL members should be confident in and stand behind the data outputs associated with the producers and commodities they certify, such that the users of that information can report credibly against their own targets. Likewise, any aspect of the emissions data outputs that are</p>

- Are any exclusions justified?
- Does the GHG-RS explain who in the system is responsible for assuring both the data and outputs related to emissions?
- Does the GHG-RS explain who in the system is responsible for oversight of this assurance?
- Are any deviations from the member's common approach to assurance captured, explained and justified?
- Does the GHG-RS explain how this is structurally supported, for example by supplementing existing Assurance Providers with necessary expertise?
- Is the proposed model of assurance and responsibilities for same in keeping with choices previously made in this guidance?
- Does the system assure input data and correct use of methodological tools and approaches or output data (i.e. actual emissions)?
- Are Assurance Providers provided a list of pre-approved scopes of assurance and as a result are clear on their residual responsibilities?
- Does the system make clear how the data, in part or whole is certified?

not assured under the member scheme must be transparently communicated and no claims made that they are endorsed.

Credibility is therefore linked to proper assurance of approach and output, though how this is achieved is perhaps the most varied of all the elements. Key indicators of credibility will include:

- Assurance brief links directly to the intended users and uses of the information
- Assurance of activities and emissions in line with the GHGP recommendations
- Recognition of the users and uses of the information in Element 1 informs the design and quality of assurance
- Clarity on what is certified within the system and what is supplemental data, with emphasis on the member taking responsibility for information
- Assurance is provided on any improvements made by suppliers, either in the direct supply accounting or interventions-based models
- Assurance providers clearly briefed on what is to be assured, to what level of assurance and for whom the data is intended and what it will be used for

Areas of potential concern: as with many of the previous elements this guidance, the most important considerations are truthful, measured and transparent reporting. Hence if any aspect of the GHG-RS is not assured then this should be transparently stated and justified. In particular, it is important that wherever a beneficial action is being taken and assumed to be reportable, for example through an interventions-based approach, then this benefit must be assured. Key indicators of a poor approach may include:

- A lack of assurance or assurance by unqualified assessors
- A lack of clarity on what is certified or an overstatement of the nature of assurance
- Assurance Providers are unclear about what is inside and outside the scope of their assurance

Guidance:

This section considers how to design assurance systems or to integrate assurance approaches into existing approaches. It does not provide guidance for assurance as this is extensively covered elsewhere, most notably in the [ISO14065 standard](#) for verification of greenhouse gas emissions.

Assurance is a key component of credible reporting and disclosure and is an explicit recommendation of GHGP (see Chapter 10 of the [Scope 3 Standard](#)). As each ISEAL member will have a different model and structure for assurance and because each member will also have a GHG-RS designed for their specific needs, there is no 'one size fits all' assurance approach for climate disclosure, just as there isn't a one-size-fits-all approach to assurance generally within the ISEAL community.

Standard good practice in GHGP inventory reporting is for verification by an Assurance Provider accredited against ISO14065, by an Oversight Body that is a member of the International Accreditation Forum (IAF). Combined these represent good assurance practices for greenhouse gas reporting. Certification has not generally been common practice in inventory assurance to date however, which is instead more akin to financial reporting wherein an assurance provider verifies against a publicly available protocol and standard.

Certification can bring added quality to the assurance of inventory data, by linking it to more holistic requirements and a generally higher level of assurance quality. It also enables users to refer to it as certified data, so far as possible, providing greater reassurance and credibility. Finally, certification allows access to the brand of the ISEAL member and thus care should be taken that any data used in the name of the member is 'approved' for that use.

The first and key decision to be made by the member is what is actually assured and certified and against which standard. This should be informed by the stakeholder engagement conducted in Element 1, which in turn should have given a clear picture of

the potential capacity and competences within the pre-existing assurance system and an initial view on whether this will need to be adapted or supplemented.

It is possible that direct assurance of emissions data inputs and outputs is fully included, or it may be that the member relies upon a centralized tool and assurance is limited to its proper use only (and hence emissions data as an output is not directly assured). It is most credible that both input and output data is assured and certified, such that the user of the information can claim that. This may not always be feasible, or may only be feasible in part (for example where third party data sets are relied upon) as explained in this section. Hence any aspect that is not assured should be disclosed and explained and potential users of the information made fully aware.

There are a number of elements that could be assured under a GHG-RS, ranging from activity inputs to the output emissions data. Some of these can be directly assured, some only indirectly and some are reliant on third party information. Potential scopes of assurance include as follows:

- **Activity-related information:** this could include input information, such as areas, geography, yield, varieties/species, presence of key variable such as shade trees or use of fertilisers etc. In short, anything that relates to on site activities that have emissions associated with them or that can affect emissions.
- **Data sources and data quality:** assessment of the quality of data and data sources per Element 3. This could include supplier specific data, collected on site (for example soil sampling, tree surveys) or third party data sets where used (see also below regarding generalized approaches).
- **Output data:** assessment of the accuracy of data outputs, essentially the Emissions Factor (part or in whole) related to the commodities. This will be a results of the first two potential scopes above, combined with the correct application of equations and calculations.

In the case of the direct supplier accounting, bottom up model, wherein each producer designs their own methodological approaches, collects and collates their own data and presents an Emissions Factor uniquely conveying their own profiles, then all three of the above will be under the direct responsibility of the Assurance Provider. In reality this is unlikely to be the case for many producers given the complexity involved.

Instead it is more likely that approaches, data sets and methodological tools are pre-approved by the member scheme for the use of all certificate holders. In this case many of the data sources and data quality assessments may be conducted centrally as part of their design and implementation, meaning that Assurance Providers do not need to re-assess them (i.e. they can assume their efficacy and accuracy based on a centralized assessment by the member). Using the mapping from Elements 1-3, the scheme should make clear to its Assurance Providers what is already approved for use and as a result which and how much of the three scopes above are included in their responsibilities. Assurance Providers should relay this in their own assessment reports to ensure transparency and consistency.

It should be noted that in the case of pre-approved scopes of assessment, such as where third-party data sources and data sets are used, these should also be assessed centrally. Typically, an LCA approach is assessed by an ISO 14065 accredited entity. For any centralized elements (see below) an Assurance Provider is recommended to carry out this assessment on behalf of the scheme and for use by all other Assurance Providers then assessing individual certificate holder applications.

ISEAL members will likely be more used to dealing with standards such as ISO17011 and ISO17065 for their assurance, though not exclusively. Many members have traditionally focused on process rather than outputs and hence assuring emissions data may be a new consideration. Fortunately, ISO14065 shares many common elements with these, from competency, audit planning, quality assurance and transparency, but is tailored to the specific technicalities and taxonomies required for greenhouse gas inventories.

This can represent a challenge for ISEAL members as it is unlikely that many will have built their assurance models with this in mind. Hence it is important to consider options to minimize the cost of additional assurance to make up for this gap (i.e. to avoid a second, ISO14065 accredited Assurance Provider being needed to supplement the existing assurance process). How to do so will depend on previous choices made, particularly whether the system is seeking to promote direct supply/supplier specific data and if improvements are being accounted for, for example through an interventions based approach. Generally, wherever beneficial improvements to Emissions Factors are being driven then it will be important that these are assured by a provider with the appropriate skills and experience, either through accreditation or supplementing existing teams with the necessary experience to do so.

Each member, in light of the choices made so far, should design an assurance approach that credibly suits the choices made and is in keeping with their assurance model. There are several ways of doing this, summarized as follows:

Generalized vs direct supplier quantification: per choices made in Element 3, the system may include for assurance of emissions information and outcomes at the supplier/certificate holder level (i.e. assurance of real data 'on site'), assurance of activity inputs and correct application of tools (i.e. assurance that a prescribed quantification tool or approach has been correctly applied) or a combination of the two (i.e. tool applied correctly and output data verified). This choice will depend on earlier answers, for example if the system promotes individual certificate holders providing their own methodological approach vs the system providing a globally applicable tool for all to use.

For each of the quantification approach models given previously the following broad assurance options are available:

- **'Generalized' approach:** in the model where the system creates a top down methodological approach for all certificate holders to use, the assurance could focus on only on the correct application of the data or tool rather than on the output

(provided that the tool itself is credibly designed and governed, see Element 3). In this model, the inputs to the tool become important to assure, i.e. that the correct variables are properly recorded per conditions on site. It may also be beneficial to have the top-down tool created by an experienced and competent LCA specialist and for it to be reviewed by an ISO14065 accredited entity. In some cases it may be possible to do this once upon creation of the approach and subsequently only when a major update is developed.

- **Direct supplier methods:** in the model where individual certificate holders put forward their own methodological approaches for assessment against standard requirements, assurance could focus on the assessment of the methodological approach and the data inputs used to calculate emissions. This is a more work intensive modality, relying on consistency of requirements and assessment against them, but can also generate the most accurate output data.

Centralized vs Decentralized assurance: Based on the above the GHG-RS could alternatively choose to rely on 'centralized' assessments of emissions data (i.e. a review by a central body within the assurance system). This allows expertise to be pooled and shared amongst the community more efficiently and for greater consistency in application, though care should be taken not to embed and repeat mistakes. Alternatively, as suggested in the direct supplier method, individual Assurance Providers can assess this as part of their assessment plan. A combination of the two is also feasible (for example individual Assurance Providers review activity data but output data is assessed centrally).

There are different ways to operate and the choice will depend somewhat on the member's approach to meeting the ISEAL Assurance Code. For example, a standard that operates using a single certification body may approach this differently and have different options to one that operates with a community of certification bodies. The latter especially has the option to either rely entirely on those certification bodies or to include a centralised assessment for the correct application of climate disclosure that works with those certification bodies, while the former could operate this centrally themselves.

Whichever choice is made, it is important that the system as a whole is focused on the assurance of quality of data. In effect the quantification approach models, top down or bottom up must both ensure that quality is driven throughout. The level of sophistication, competence amongst certification bodies will likely determine the choices made for assurance.

Levels of assurance

There are three main aspects to the assessment of GHG data:

1. **Activity inputs – assessing the activities and variables taking place on site**
2. **Data sources and data quality – assessing the quality and reliability of data sources and data sets**
3. **Data outputs – assessing actual results**

Generally, it is recommended that activity inputs (i.e. matters such as land area, yield, location, variety, activities) are assessed to a reasonable level of assurance based on verifiable evidence, such as site visits, geo-spatial data and survey. This is because it is clearly possible to assess whether or not an activity is taking place. Representative sampling of course may be required to achieve this and as such should be in line with the requirements of the member's standards. Sampling should be statistically relevant and complete.

Data sources and data quality should be assessed against the criteria indicated in Element 3 to a reasonable level of assurance (i.e. that the Assurance Provider asserts that data quality criteria are met).

Data outputs can be challenging to reasonably assure as measurement of actual atmospheric emissions is not always feasible. Hence it is recommended to seek reasonable levels of assurance wherever possible but to recognize that to reasonably assess the actual emissions due to the complexity involved and hence this may remain a limited level of assurance. Likewise, regarding output data, the summation and calculations for Emissions Factor reporting should be conducted against the criteria indicated in Element 3 and in the GHGP to a reasonable level of assurance, but the actual emissions can only be limited.

Overall if activity inputs and data sources/quality are assessed to a reasonable level of assurance and calibrated with reasonable data output sampling then the system should be well placed to cope with those aspects of data output that can only be limited assurance.

Oversight

This guidance will not focus extensively on the function of Oversight and the role of Oversight Bodies. It is noted however, that whatever brief is provided to Assurance Providers and whatever scope of assurance they are required to conduct should be covered by their accreditation and assessed by their Oversight Body. It is recognized that this may take time to adopt as accreditations are not necessarily flexible. Options such as reliance on centralized, pre-assured/approved approaches, use of experts or the creation of add-on oversight modules to approve Assurance Providers for this purpose are all options to adapt the scheme if needed.

Value of an assurance community

It is recommended that as part of the GHG-RS that a 'community' of experts is convened as a forum to discuss risks, ideas and opportunities for improvement. It is tempting to think of the assurance community as a transactional necessity to inventory reporting, but the value-add can be much greater than only this. A community of practice could be based on individuals from different providers or experts within a single entity model. There are many things that the group could consider, including:

- Regular review of activities, data and outputs and the levels of assurance achievable
- Consistency of generalized approaches with reality on site
- Regular recommendations for system improvement towards greater efficiency and accuracy
- Feedback on users/use cases for the data including the assurance 'duty of care' for those that might be receiving the information
- Safety and privacy of those collecting and reporting data

Element 6: Approach to impact metrics and other mechanisms

Description and purpose of element: This element describes any other elements of the member's system that relate to impact claims and how these are managed with regards to matters such as double counting, where relevant.

Principles

1. The GHG-RS should explain how any impact metrics should be used by claimants and how any residual accounting should be adjusted, if necessary.
2. The GHG-RS and associated terms and conditions should safeguard against harmful double claiming in relation to carbon markets.

Recommended outputs

- a. Description of impact metrics and how they are attributed to claimants
- b. Details of how the use of impact data relates to emissions data, for example in terms of multiple attribution and double counting
- c. Details of how any carbon market certification, either within the scheme or by certificate holders is managed. In particular, details of how double counting is prevented through accounting adjustments.

Key checklist criteria:

Credibility indicators:

- Does the GHG-RS include guidance for the quantification of impact metrics?
- Does the GHG-RS include guidance for the credible use of impact metrics?
- Does the GHG-RS require and include safeguards for the avoidance of using outcome/impact metrics for inventory disclosure purposes?
- Does the GHG-RS require and include safeguards for the avoidance of harmful double counting of all forms?

High credibility: Impact or outcome indicators, such as Emissions Reductions, can be a useful tool in monitoring and reporting the consequential results of an action. In turn this can incentivize payments, for example for eco-systems services or via carbon markets. Impact reporting is credible if done well and where it avoids issues of double counting. Indicators of credibility may therefore include:

- Clear definitions of inventory metrics vs income/outcome metrics, with examples
- Clear guidance for users on the use of carbon markets and how safeguards will be applied in relation to the use of carbon offsets

Areas of potential concern: There are two main pitfalls with the use of impacts. The first is that impact/outcome metrics and disclosure metrics are not the same and the former cannot typically be used for the latter. Secondly, some uses of impact metrics by companies can lead to harmful double counting, wherein a claim is rendered uncredible. The main example of this would be in carbon offsetting, where the use of an Emissions Reduction outcome benefit precludes the use of that benefit in inventory reporting in the same period. It is

important the GHG-RS safeguard these two areas and hence the following indicators should be avoided:

- No safeguarding against double claiming in the carbon markets
- No safeguarding against the use of impact/outcome based metrics for inventory disclosure
- No guidance for how to use impact/outcome related claims for other purposes

Guidance:

Impact is applied as a 'catch all' term for outcome and impact-based approaches to accounting, typified by a comparison of changed activities to a baseline scenario. This differs from the main mode of accounting envisaged throughout this guidance, which reflects an inventory 'snapshot' based approach. This is illustrated by comparing a report based on an emissions metric (i.e. Ey) vs an accounting approach based on emissions reductions (ER). The latter compares emissions in a change scenario to that prior to the change, with the difference between the two reflecting an outcome (reduction of emissions).

An outcome/impact-based approach can be especially helpful in determining the effectiveness of an intervention and for ascribing results-based payments to the proponent of the change, for example. They cannot be used in the context of inventory based accounting however, because the different form of accounting is largely incompatible and would result in misleading accounts.

This section reviews how impact-based and inventory-based accounting can usefully work together and when safeguarding is needed to prevent them undermining each other. Members can and should consider the role of impact-based approaches for different applications, depending on the uses identified in Element 1. Both forms of accounting are useful and are especially effective when considered holistically and robustly together. The foundation of a good GHG-RS will be a strong inventory-based approach, with a further consideration of the use and overlap of impact-based thinking.

The GHG-RS and this guidance document is therefore largely predicated on inventory reporting for disclosure purposes, based on a snapshot of emissions. It is not an impact-based or outcome-based approach, in the sense that it only states an amount, not whether that amount is good or bad or better than prior efforts. For companies this approach is built into a target-setting and progress reporting approach (i.e. SBTi) such that the impact of climate strategies is played out over a long period.

Impact or outcome metrics typically indicate a change (improvement) over a counter-factual baseline. This can be important in assessing the results of an activity and can be used in a wide range of financial incentive schemes. It is particularly useful where activities that target the improvement of specific processes is undertaken as it can clearly demonstrate the improvement made over time. Typical uses of impact-based approaches are:

- **To assess the effectiveness of an intervention that targets the improvement of emitting processes or improvement of carbon stocks. This is especially helpful when considering the credibility of an interventions-based approach in the context of supply-shed level of traceability.**
- **To facilitate results-based payments, for example in the form of incentives or premiums to producers by partner buyers. Payment for ecosystem services or impact incentives would be typical examples.**

- **To assess extra-value chain processes, i.e. those that are not included in a Scope 3 boundary (for example domestic arrangements of producers or lands outside the value chain) as these would not be helpfully accounted using an inventory-based approach.**
- Subject to safeguarding against double counting and meeting the requirements of credible third party standards, to access carbon markets and seek carbon finance.

This guidance endorses and supports the use of the [ISEAL Claims Guide](#) and the [ISEAL Impact and Outcome Claims Guidance](#) papers for how to decide whether a user can apply the data for use of emissions data associated with purchased goods. This section of the guidance therefore focuses on the interaction between inventory and impact-based approaches concerning GHG emissions as this has specific nuance that should be carefully considered in the GHG-RS.

Avoidance of the use of impact or outcome-based metrics for inventory reporting and disclosure purposes

The first key safeguard the GHG-RS should include is the avoidance of use of impact or outcome-based metrics, especially Emissions Reductions in the context of GHGP inventory reporting and towards a science-based target. This is because it is a different form of accounting and taking one from the other will not typically add up because of this. Hence members should not allow in the GHG-RS for the use of Emissions Reductions or other impact or outcome-based metrics to be used by reporting companies for the purposes of inventory disclosure. This may be under the direct control of the member, for example through licensing and claims requirements. Alternatively, the GHG-RS can safeguard against this by clearly stating this is not allowed and by not ascribing such metrics to certified goods.

In short, it is not credible to calculate Emissions Reductions or Removals and 'net' this from the Emissions Factor or from a company inventory report. The GHG-RS should make this explicitly clear and have a process for dealing with mis-use should it arrive (this could be by reference to a wider process for dealing with non-conformity, for example).

This should be a relatively straightforward safeguard, essentially focusing on ensuring that the metric applied remains in emissions and that the boundaries align with Scope 3. Following the earlier Elements of this guidance should naturally lead to this point, though members may wish to explicitly state in any claims guidance by reference to the GHGP.

Double counting

There are three main forms of double counting that should be carefully considered, as follows:

- Double use – where two companies use the same certificate for the same purpose. This can be challenging to consider in the context of a GHG-RS as, per earlier sections, the usefulness of Scope 3 is in the shared accountability for the same emission. The key issue with double use in a Scope 3 sense is therefore two companies in the same supply chain tier claiming to have purchased the same goods. This should be avoided, especially if those goods have been improved through interventions, as it would lead to mis-reporting and an over-estimation of improvements made.
- Double issuance – where two certificates are issued for the same certified goods. This is typically resolved by ISEAL members own tracking systems and is therefore not covered in more detail here.

- Double claim – where two users report the same benefit for their own purposes, for example one company reports an improvement in their Scope 3 inventory while another (or worse, the same) company claims the same benefit as an offset to make claims such as carbon neutrality. This should be avoided as it renders these claims to be untrue and would undermine credibility of both and of the GHG-RS.

The main concern regarding the interplay with impact and inventory metrics is double claiming, where one company reports inventory and another the impact. This can sometimes be acceptable, but it depends on the nature of the claims being made and whether the claim requires to be unique.

The use of impact-based approaches is also important to consider because impact stories are compelling ways to 'sell' activities and can be used in the context of, for example, carbon markets. A consideration of impacts and outcomes also may unlock the use of an intervention-based accounting approach considered earlier in Element 2. Impact-based approaches carry some risk, however, because they can introduce challenges of double counting, particularly if used in context of claims such as offsetting. This is because in effect two companies may be reporting the benefit, one in their Scope 3 inventory and the other as an offset claim (or worse, the same company makes both claims themselves).

Hence it is important that a GHG-RS details how impact-based approaches are considered and how double counting is safeguarded against. To do so, two types of claims are noted:

1. **Narrative claims:** this type of claim is based on a company that has supported a change making a simple claim to that support. For example, a company purchasing certified timber may also use a narrative of how that purchase drives impacts such as those included in typical ecosystem services approaches. Provided the company is being transparent

about how this information is being used and that how this relates to other companies claiming the same for their purchases, then this can be credible.

2. **Status/target claims:** this type of claim more formally 'counts' an impact towards a status or target. A good example would be to count Emission Reductions as carbon offsets and towards a claim of carbon neutrality, or similar. If the underlying emissions information is claimed towards an inventory target then it is not credible for the same company or a different company to claim it as an offset. This is because offsetting requires a unique claim in order to work, thus rendering the claim untrue.

Generally, the key risks that a GHG-RS should consider in relation to impacts is to include safeguards to manage where impact-based metrics are used for status or target-based claims, namely voluntary or compliance offsetting (though other examples may emerge). In such cases the GHG-RS should include for adjustment of inventory accounting to allow the release of carbon offset credits.

One potential challenge related to this is the prevention of certificate holders from taking advantage of carbon markets may be beyond scope of the member. It can be challenging to preclude this as it may be unfair and because it may be difficult to check.

For generalized approaches (see Element 3) it is likely very difficult to add back to the accounting for carbon credits, as this would need to be averaged across a group of producers, some of whom may not have anything to do with the carbon credit issuance or sale. If this cannot be resolved then it is recommended that certificate holders are required to disclose during assurance whether they are participating in a carbon offsetting programme and if so they should decide between this and including emissions data for inventory reporting in their certification for each given year.

For more sophisticated schemes where a direct supplier approach is in place it may be possible for the emissions data to be adjusted upwards for each carbon credit issued, though this is mathematically complex and if undertaken should be supported by expert assessment.

Impacts/outcomes outside the Scope 3 boundary

It is possible that the processes involved in certified goods do not all fall within the Scope 3 boundary, as described in Elements 1 and 2. Examples may include improvements to the domestic situation of producers and conservation outside the production boundary. As earlier noted, where these are included in the GHG-RS they should be separately reported from the emissions data associated with GHGP inventories. This should be straightforward due to the mapping undertaken in earlier elements.

For these activities and their associated impacts/outcomes, particularly where they are outside the productive economy, there are few issues of double counting to be concerned with, though transparent disclosure is still recommended. It is possible that a certificate holder could be supported in some aspects of their livelihoods through carbon markets and for their business through inventory reporting related incentives.

Acceptable double claiming

It should be noted that while double claiming between impact/outcomes and inventory metrics can be harmful to integrity, there are forms of double claiming within corporate inventory reporting that are acceptable, even to be encouraged. This is

because inventory reporting represents the taking of responsibility for an emissions liability for all actors in the supply chain. In this way both the final retailer and all intermediary steps in the supply chain should report the emissions associated with the purchased goods.

Likewise, for the producers the emissions represent a Scope 1 activity (see Element 1) while the downstream producer of consumer goods and the retailer will treat them as Scope 3. This double claim is acceptable as it remains accurate and truthful. One form of double claiming to be avoided however, is two companies in the same supply chain tier both reporting the same purchased goods (i.e. the same physical supply). Where traceability exists this is already safeguarded as it should not be feasible for two or more companies to purchase the same goods.

Where an interventions-based approach is applied there could be a risk that a second company inadvertently reports the same purchased goods and the same improved Emissions Factor as it is not possible to know precisely who purchased them. In such cases it is essential that the GHG-RS safeguards against improvements to untraceable goods be claimed twice. The use of certificates provides the natural opportunity to do this and the use of terms and conditions for certificate holders should prevent the double selling of improved Emissions Factors to non-participating companies.

Element 7: Approach to certificate and license holder claims

Description and purpose of element: This element describes how all the previous elements come together in how claims are managed.

Principles	Recommended outputs
1. The GHG-RS should include clear claims guidance for certificate and license holders to include information in reporting and narrative claims.	a. Claims guidance for certificate holders and license holders, including any restrictions and limitations based on the choices made throughout the elements.
Key checklist criteria: <ul style="list-style-type: none">• Does the GHG-RS state that users should adhere to GHGP requirements and that, hierarchically, this takes precedent in the event of any conflicting requirements?• Does the GHG-RS clarify what to do if data is later proven to be incorrect?• Is a process provided through which conflicts can be resolved, particularly to avoid harming the safety or livelihoods of producers or damage to the environment?	Credibility indicators: <p>High credibility: all claims by reporting companies should be truthful, transparent, measured and assured. In this context, high credibility indicators for the GHG-RS include:</p> <ul style="list-style-type: none">• Adherence to the ISEAL Claims Guidance and Impact and Outcomes Claims Guidance• A process for correcting errors and dealing with grievances

- Does the GHG-RS give guidance to certificate holders and data users as relates to the use of the member's brand?

Areas of possible concern: as the core claim intended under this guidance is to report under GHGP this is already well safeguarded by that alignment. Where members may wish to go further is in how that relates to the use of their brand and any liabilities associated with the date. Indicators of potentially poor or weak approaches in this regard may include:

- Lack of claims guidance and/or lack of reference to GHGP

Guidance:

This section builds on previous notes regarding the allocation of data and its use. It is primarily concerned with claims made beyond those associated with GHGP as this already represents a well-used pathway for most reporting companies. It is recommended that the GHG-RS makes clear that, where any conflict arises between the GHG-RS and the GHGP that the GHGP requirements take precedence, provided there is no risk to the livelihoods, safety of producers or to the environment (in which case a process for decision-making should exist). A process to resolve this could include review by an expert in greenhouse gas accounting in the context of the producers affected in order to make credible recommendations to all parties.

The same processes could also deal with the situation where data is later found to be incorrect. It is important that the GHG-RS explicitly state who in the system is responsible for such instances to avoid any conflict later. It is generally recommended

that no liability for such errors is held by producers themselves as this may dis-incentivize participation and lead to unreasonable and outmatched conflict.

There are a wide range of corporate climate claims that exist in common practice or increasingly as guided by regulation or by civil society. This guidance does not intend to unpack all possible corporate claim options as this is a complex and evolving area. Instead archetypal claims are considered. It is recommended that members keep up to date on developments to realize the [WWF Corporate blueprint](#) and emerging initiatives at Gold Standard and [VCMii](#).

Interest in corporate climate claims is also increasing within consumer protection agencies and it is predicted that in coming years such claims will be scrutinized in the same way as advertising. Accordingly, this guidance recommends use of the [ISEAL Claims Guidance](#) and the [ISEAL Impact and Outcome Guidance](#) notes and to supplement these with further key considerations in this section.

Developing member brand-related climate claims

Aside from adherence to GHGP inventory accounting principles and requirement, it is likely that certificate holders and purchasing companies will also want to make claims about their participation and any benefits derived. This is perfectly reasonable and credible, provided the claims adhere to the ISEAL Claims Guidance and Impact and Outcomes Claims Guidance. It is recommended that members develop specific claims guidance in this context that explains:

- How certificate holders and companies can talk about their participation in the scheme
- How they can make claims concerning progress related to their participation in the scheme
- How they can talk about the specific improvements to Emissions Factors made by being certified or purchasing certified goods
- How they can talk about emissions related to certified goods as compared to non-certified

In all of the above it is important that claims are true, measured, accurate and assured. Over stating benefits is a major pitfall of climate action, as is over-ascribing wider outcomes to the purchase of certified goods.

Element 8: System capacity building and M&E

Description and purpose of element: This element describes how the member will maintain and update the system and individual elements over time, including for correction of past learning where needed. It may also include details of training and capacity building programmes.

This also includes clarity on how data will be managed, particularly where sensitive and personal data will be captured.

Principles	Recommended outputs
1. The GHG-RS should include standard operating procedures for the regular maintenance and update of the system.	a. SoP system update
Key checklist criteria: <ul style="list-style-type: none">• Does the GHG-RS state how it will be maintained over time and how improvements will be made?• Does the GHG-RS include for the continuous improvement of accuracy and traceability?	Credibility indicators: <p>High credibility: this aspect of the GHG-RS is more prosaic and in keeping with typical practices at many ISEAL members. It will involve the maintenance and upkeep of the GHG-RS and ensuring that approaches within it are up to date and following latest good practices. It will also include the ongoing and periodic assessment of impact as the GHG-RS calibrates</p>

- Does the GHG-RS have a policy and procedure for managing data security?

and recalibrates over time. Indicators of credibility therefore include:

Areas of potential concern: the main concerns to avoid are that the GHG-RS stagnates after its initial implementation. The world of emissions reporting moves quickly, both in terms of data quality and in terms of reporting approaches and mechanisms. Hence it is essential that the system includes for planned maintenance and improvement. Key indicators of what to avoid may include:

Guidance:

Most ISEAL members will require little advice in terms of producing procedures for the continuous review and improvement of their standards systems. That experience and expertise should be brought to the GHG-RS which should already include for them at the time of implementation. There are two main areas of maintenance that should be considered:

1. **Is the approach to accounting and reporting up to date?:** how we report and track progress related to emissions is a fast evolving space. Hence it is important to constantly track what is happening within the main reference frameworks (i.e. GHGP, SBTi and WWF's Corporate Blueprint). This can include at the overall standards level, or in some cases

where sector specific guidance and tools are developed. Members should always aim to refer to the latest versions of each reference document and it is recommended that updates are implemented immediately.

2. Is the approach to quantification of emissions data up to date?: ultimately the GHG-RS will stand or fall based on the quality of information it provides. The approaches designed in elements 1-5 are critical in this regard and should be under constant review, particularly in use of latest and best available data. Members may wish to participate in networks and communities associated with their sector in order to stay on top of this. The process should include for the review and approval of approaches, likely requiring expert and stakeholder review.

As always, members should ensure that the governance and processes for updating and consulting upon the GHG-RS are publicly and transparently available. It is recommended that periodic (every 2-4 years) assessment of the GHG-RS and its impacts is undertaken. This should involve consultation amongst users and stakeholders, with recommendations taken forward for its improvement.

Finally, it is recommended that the member appoint a senior representative and owner of the GHG-RS within their system (both an individual and a team where required). It is recommended that this individual be competent in GHGP inventory reporting, ideally through experience but also through training. Third party training courses are available and relatively inexpensive, including those provided by the GHGP itself.

2. The GHG-RS should include information and links for how certificate holders can access the scheme (if not embedded as a mandatory approach), how other stakeholders should interact with it and any training and capacity building available to do so.

a. Accessibility information and links to training and capacity building opportunities

Key checklist criteria:

Credibility indicators

- Has a capacities assessment been conducted and training, materials and processes been developed according to this need?
- Is there a web page where users can find comprehensive information about the GHG-RS and how to engage with it?
- Does the GHG-RS have a community of practice and a space to learn from exemplars?

High credibility: Emissions reporting is a complex business and while the GHG-RS process is designed accordingly, the real way to ensure its uptake and successful impact is through engagement. There are few ways to change the nature of climate disclosure, but there are many ways to build capacity and improve quality. Hence the most credible systems start and end with a consideration of stakeholders and have accessible information, training, and material for all to participate.

Areas of potential concern: the main pitfall to avoid at this stage is an 'if you build it they will come' mentality. Whilst most people will wish to support climate effort the barriers to entry, mainly cost and complexity, remain high. Hence a system that does not consider how it will grow interest and capacity is likely to lead to poor uptake and results.

Guidance:

Engaging in emissions reporting can be daunting, particularly for producers who do not typically engage in these complex processes. The first Element of this GHG-RS began with an identification of stakeholders, their likely roles in and uses for the GHG-RS and an assessment of their capacities. This was then used to inform later approaches, meaning that to some extent the GHG-RS is designed to be most useful to its stakeholders.

It is now important to circle back to this initial review as it will be important for members to support their communities in engaging with, understanding and ultimately benefitting from being part of the GHG-RS. ISEAL members have great experience of inclusivity (and more importantly, avoiding exclusivity) of producers, this can be brought to bear to the benefit of the GHG-RS. There are several things to consider in this regard, ranging from outreach/awareness, initial engagement and capacity building, support to implement the intended practices and the correct use of the information. Ultimately, each stakeholder group engaging with the GHG-RS will need to use the information produced in different ways, but all will need to understand their part in the process.

The first thing to consider then is the list built in Element 1 of the key stakeholders. This list can be further built upon now to create processes and materials to engage with and support them through the process. This guidance cannot provide solutions for each stakeholder and their context, but instead considers the key aspects of the stages noted above and some ideas to consider.

Outreach and awareness raising

All identified stakeholders should be made aware of the GHG-RS, its aims and objectives and the potential benefits available to each stakeholder group by participating. Elsewhere in this series of guidance are generic 'start here' documents both as a whole and for the key stakeholder groups of standards professionals, assurance providers/oversight bodies, certificate holders/applicants and reporting companies. As a minimum these should be made available, though members may wish to take them and further contextualise them for their own purpose.

It is recommended that a centralized resource page is established where the GHG-RS is published and updated, alongside 'start here' guidance, promotional material, brand collateral and any media such as introductory videos and brochures are kept. It is recommended that members pro-actively and regularly remind the key stakeholders identified of its existence.

Finally, it may be worth considering a 'white book' of good practice examples and a community forum to engender discussions. It is likely that seeing real exemplars and engaging with peers will greatly assist stakeholders to engage. This same community can also then provide ongoing review and input to the continuous improvement of the GHG-RS.

Initial engagement and capacity building

Having initially understood the purpose and structure of the GHG-RS and how to engage with it, members may find a need to assist with capacity building. An initial briefing and training webinar can assist stakeholders with understanding the approaches and decisions taken, particularly when supplemented with a community forum and a channel for raising and receiving clarifications. Hence these are recommended to members as outputs under this Element.

It may be beneficial within the community to build a group of experts from different stakeholders and from outside the standard. These can be called upon to review, comment and advise participants on an ad hoc basis, subject to fees etc. Where any internal approval is given, for example to Assurance Providers or to supporting experts, this should be clearly stated.

Finally, it is recommended that GHG-RS training is developed, likely on a stakeholder group basis and targeted at the needs and capacities identified. This can of course be a resource-intensive affair but the benefits to the community and to the successful roll out of the GHG-RS are immeasurable.

Implementation

As Certificate Holders, Assurance Providers and companies begin to engage with the process, it is likely that they will have further training needs and requests for clarification. Members should keep a space on the GHG-RS site for Frequently Asked Questions and a clear process for clarifications to be resolved.

3. Does the GHG-RS have a robust policy in place for data privacy and security?

a. Data privacy and security policy (which can be a wider policy) along with the identification of any specific issues and risks associated with the GHG-RS

b. Procedures to deal with security breaches

Key Checklist Criteria:

- Are key data security and privacy issues identified, particularly for any privately collected data used in the calculation of emissions?
- Is a policy and process for data security monitoring in place?

Credibility indicators

High credibility: generally speaking climate data is no more or less a risk than other data within the member's system. There may however be particular issues associated with privacy, for example where private data from producers or from buyers is needed to calculate emissions or to report accurately. Likewise there may be security risks where finance is related to results-based payments based on certificates. Most members will already have data security and privacy policies and procedures, including for the identification of new

risks and threats. Credibility indicators should therefore include:

- Consideration and incorporation of ISEAL Data and Information Management (part of the ISEAL Community platform) is recommended
- A system that takes advantage of data insight to improve the system and to create value for users
- The identification of any potentially private or sensitive data sources within the GHG-RS
- The identification of any new risks, threats or weaknesses introduced by the GHG-RS
- Updates or addenda to the member's data security and privacy policy reflecting the above
- Contact details for raising and dealing with any such threats or failures in the system

Areas of potential concern: the GHG-RS introduces a need to work with much more detailed data than process-based standards may be used to. Much of this data is 'benign' and publicly available, but some, particularly activity inputs, will be bespoke. The main concerns at this stage will be the absence of any policy or procedure, or simple references to existing

policies that have not considered whether there are any new issues raised by the GHG-RS. Indicators may include:

- Generic references to data security and privacy or deferall to wider scheme policy with no consideration of the particular issues caused by the GHG-RS
- Absence of any contact details for escalation of concern

Guidance:

This section refers to ISEAL guidance concerning the governance, licensing and gathering of insight from data produced by member schemes. It specifically reviews recommended practices and processes and highlights some of the key opportunities and pitfalls associated with climate data. In this sense members should refer to ISEAL guidance for general practice and are assumed to have read and understood key documents in order to fully incorporate the guidance below.

Detailed guidance to follow

3.0 | CONCLUSIONS

The intent of this guidance is to support members in the production, management and continuous improvement of a robust GHG-RS. It is hoped that the Elements provide a logical flow and framework for doing so and that members will share their experiences publicly to the benefit of the ISEAL community.

As the world of climate reporting and disclosure is continually evolving it is fully expected that this guidance will also need to continually update and improve. It is recommended that members check with the authors as to whether an update is pending when commencing new design or improvements to existing GHG-RS'.

This guidance has brought together eight key elements, representing the building blocks that combined can realise credible climate reporting. It is recommended that members use these elements to create a document and likely also a web page to hold this design information. The format of the GHG-RS should be at each member's discretion, though a template is included in Appendix A.

This template could be used to design a GHG-RS from scratch or could alternatively be used to map existing approaches in a structured way. It is recommended that an archive of previous iterations is kept in order to demonstrate the continuous improvement and refinement of the GHG-RS over time.

The authors wish members every success in developing and implementing their GHG-RS and commend all efforts to avert the climate emergency in an inclusive, principled fashion.

ANNEX A – GHG-RS TEMPLATE (TO FOLLOW)

ANNEX B – GOLD STANDARD QUANTIFICATION AND DATA QUALITY FOR INTERVENTION-BASED APPROACHES (TO FOLLOW)