Template for submitting proposals related to GHG Protocol's *Corporate Standard, Scope 2 Guidance, Scope 3 Standard, Scope 3 Calculation Guidance* and market-based accounting approaches

(Optional)

Proposal instructions

GHG Protocol is conducting four related surveys in reference to the following GHG Protocol standards, guidance and topics:

1. Corporate Accounting and Reporting Standard (Revised Edition, 2004) ("Corporate Standard")
2. Scope 2 Guidance (2015)
3. Corporate Value Chain (Scope 3) Accounting and Reporting Standard (2011) ("Scope 3 Standard"), and Technical Guidance for Calculating Scope 3 Emissions, version 1.0, 2013 ("Scope 3 Calculation Guidance")
4. Market-based accounting approaches

The survey is open until March 14, 2023. To fill out the survey, click here.

As part of the survey process, respondents may provide proposals for potential updates, amendments, or additional guidance to the *Corporate Standard, Scope 2 Guidance, Scope 3 Standard, or Scope 3 Calculation Guidance*, by providing the information requested in this template. You may also use this template to provide justification for maintaining a current approach on a given topic.

Submitting proposals is optional. Respondents may submit multiple proposals related to different topics.

Proposals should be as concise as possible while providing the requested information. Submissions that are outside of the template may not be considered. Proposals may be made publicly available.

To submit the proposal, please save this file and fill out the fields below. When you've completed your proposal, please upload the file via this online folder. Please name your file STANDARD_Proposal_AFFILIATION, e.g., *Scope 2_Proposal_WRI*.

Proposal and supporting information

1. **Which standard or guidance does the proposal relate to (Corporate Standard, Scope 2 Guidance, Scope 3 Standard, Scope 3 Calculation Guidance, general/cross-cutting, market-based accounting approaches, or other)? If other, please specify.**

Scope 3 calculation guidance

2. **What is the GHG accounting and reporting topic the proposal seeks to address?**

1. Include bio-genic emission and removals in the scope while requiring separating documentation and reporting 2. Provide guidance on emission factor choices for the following situations: • When can bio-based material claim bio-removals in product (for product lifetime more than 100 years?—connecting to the to-be published Land use and removal guidance) • When can company claim zero emissions for end-of-life treatment of material? (Can a company claim zero emission in category 12, when a material is bio-based? Can a company claim zero emission in category 12, when a material recycled? Then how

about recycled bio-based materials, can a company claim removal in category 12 for recycled bio-based materials? How to avoid claiming removals twice for bio-based material usage in the scenario recycling?

- How to claim emissions and removals for end-of-life waste-treatment with energy recovery?

3. What is the potential problem(s) or limitation(s) of the current standard or guidance which necessitates this proposal?

1. When biogenic emissions and removals are completely out the scope, companies are discouraged to use bio-based and recyclable materials to reduce category 1, 5 and 12 emissions
2. When biogenic emissions and removals are included in the scope, companies are confused about when to report it and how to quantify it in different end-of-life treatments scenarios (landfill, incineration, recycling, with or without energy recovery for incineration and landfill)

4. Describe the proposed change(s) or additional guidance.

I recommend that the protocol or guidance can add an example with made up emission factors to explain:

1. Emission factors choice and the emission sources included
2. When to use which emission factors
3. How to avoid double counting

I provided one imaginary example below for your reference. (Considering the table format, I pasted the table at the end of this document). The example is completely open for discussion, critics, and corrections**. I wish to only demonstrate the type of guidance included (the structure), without advocating my solution(accounting methodology) as the best choice.**

5. **Please explain how the proposal aligns with the GHG Protocol decision-making criteria and hierarchy (A, B, C, D below), while providing justification/evidence where possible.**

   A. **GHG Protocol accounting and reporting approaches shall meet the GHG Protocol accounting and reporting principles (see Annex for definitions):**
      - Accuracy, Completeness, Consistency, Relevance, Transparency
      - Additional principles for land sector activities and CO_2 removals: Conservativeness, Permanence, and Comparability if relevant

Completeness:

AFOLU emissions are part of the scope 1 emissions, therefore land use related emissions and removals must be part of scope 3.

Transparency and consistency:

Companies applying the same rule to quantify impacts of bio-based and recyclable material will enhance the transparency and consistency.

   B. **GHG Protocol accounting and reporting approaches shall align with the latest climate science and global climate goals (i.e., keeping global warming below 1.5°C). To support this objective (non-exhaustive list):**
      - Direct emissions reported in a company's inventory should correspond to emissions to the atmosphere. Reductions in direct emissions reported in a company's inventory should correspond to reductions in emissions to the atmosphere.
      - Indirect emissions reported in a company's inventory should in the aggregate correspond to emissions to the atmosphere. Reductions in indirect emissions reported in a company's inventory should in the aggregate correspond to reductions in emissions to the atmosphere.

It encourages companies reducing scope 3 category 1, 5 and 12 emissions. In the meantime, it stimulates the transparency of scope 1 emissions and removals reporting from agricultural and forestry companies, which will lead to 1.5-degree target achieving.

C. GHG Protocol accounting frameworks should support ambitious climate goals and actions in the private and public sector.

- Would this proposal enable organizations to pursue more effective GHG mitigation/decarbonization efforts as compared to the existing standards and guidance? If so, how?
- Would this proposal better inform decision making by reporting organizations and their stakeholders (e.g. related to climate-related financial risks and other relevant information associated with GHG emissions reporting)?

It encourages ambitious scope 3 goals by using recycled and bio-based materials.

D. GHG Protocol accounting frameworks which meet the above criteria should be feasible. (For aspects of accounting frameworks that meet the above criteria but are difficult to implement, GHG Protocol should provide additional guidance and tools to support implementation.)

- What specific information, data or calculation methods are required to implement this proposal (e.g., in the case of scope 2, data granularity, grid data, consumption data, emission information, etc.)? Would new data/methods be needed? Are current data/methods available? How would this be implemented in practice?
- Would this proposal accommodate and be accessible to all organizations globally who seek to account for and report their GHG emissions? Are there potential challenges which would need to be further addressed to implement this proposal globally? What would be the potential solutions?

Not relevant

6. **Consistent with the hierarchy provided above, are there potential drawbacks or challenges to adopting this proposal? If so, what are they?**

I cannot think of any

7. **Would the proposal improve alignment with other climate disclosure rules, programs and initiatives or lead to lack of alignment? Please describe.**

Yes , the agricultural guidance and the land-use and removal standard. It also connects to the LCA standard.

8. **Please attach or reference supporting evidence, research, analysis, or other information to support the proposal, including any active research or ongoing evaluations. If relevant, please also explain how the effectiveness of the proposal can be evaluated and tracked over time.**

Not relevant

9. If applicable, describe the process or stakeholders/groups consulted as part of developing this proposal.

Yes. Many chemical companies, who cannot reduce to net-zero usage of carbon-materials, would like to join the consultation.

We are happy to connect WRI with the Association of Adhesive Tapes for a wider consultation, including sharing new drafts and arranging discussions.

10. If applicable, provide any additional information not covered in the questions above.

No

Proposal Annex

GHG Protocol Decision-Making Criteria and Hierarchy

A. First, GHG Protocol accounting and reporting approaches shall meet the GHG Protocol accounting and reporting principles:
- Accuracy, Completeness, Consistency, Relevance, Transparency
- Additional principles for land sector activities and CO_2 removals: Conservativeness, Permanence, and Comparability if relevant
- (See table below for definitions)

B. Second, GHG Protocol accounting and reporting approaches shall align with the latest climate science and global climate goals (i.e., keeping global warming below 1.5°C). To support this objective (non-exhaustive list):
- Direct emissions reported in a company's inventory should correspond to emissions to the atmosphere. Reductions in direct emissions reported in a company's inventory should correspond to reductions in emissions to the atmosphere.
- Indirect emissions reported in a company's inventory should in the aggregate correspond to emissions to the atmosphere. Reductions in indirect emissions reported in a company's inventory should in the aggregate correspond to reductions in emissions to the atmosphere.

C. Third, GHG Protocol accounting frameworks should support ambitious climate goals and actions in the private and public sector:
- Accounting framework/s would enable organizations to pursue more effective GHG mitigation/decarbonization efforts as compared to the existing standards and guidance
- Accounting framework/s would better inform decision making by reporting organizations and their stakeholders (e.g. related to climate-related financial risks and other relevant information associated with GHG emissions reporting)

D. Fourth, GHG Protocol accounting frameworks which meet the above criteria should be feasible to implement for the users of the frameworks.
- For aspects of accounting frameworks that meet the above criteria but are difficult to implement, GHG Protocol should provide additional guidance and tools to support implementation.

GHG Protocol Accounting and Reporting Principles

Principle	Definition

Accuracy	Ensure that the quantification of GHG emissions (and removals, if applicable) is systematically neither over nor under actual emissions (and removals, if applicable), and that uncertainties are reduced as far as practicable. Achieve sufficient accuracy to enable users to make decisions with reasonable assurance as to the integrity of the reported information.
Completeness	Account for and report on all GHG emissions (and removals, if applicable) from sources, sinks, and activities within the inventory boundary. Disclose and justify any specific exclusions.
Consistency	Use consistent methodologies to allow for meaningful performance tracking of emissions (and removals, if applicable) over time and between companies. Transparently document any changes to the data, inventory boundary, methods, or any other relevant factors in the time series.
Relevance	Ensure the GHG inventory appropriately reflects the GHG emissions (and removals, if applicable) of the company and serves the decision-making needs of users – both internal and external to the company.
Transparency	Address all relevant issues in a factual and coherent manner, based on a clear audit trail. Disclose any relevant assumptions and make appropriate references to the accounting and calculation methodologies and data sources used.
Conservativeness (Land Sector and Removals Guidance)	Use conservative assumptions, values, and procedures when uncertainty is high. Conservative values and assumptions are those that are more likely to overestimate GHG emissions and underestimate removals, rather than underestimate emissions and overestimate removals.
Permanence (Land Sector and Removals Guidance)	Ensure mechanisms are in place to monitor the continued storage of reported removals, account for reversals, and report emissions from associated carbon pools.
Comparability (optional) (Land Sector and Removals Guidance)	Apply common methodologies, data sources, assumptions, and reporting formats such that the reported GHG inventories from multiple companies can be compared.

Recommended example table and explanatory text:

	Material name	Emission Factor including biogenic carbon(tCO2e/t material)		Emission factor excluding biogenic carbon (tCO2e/t material)		Bio-removal(tCO2e/t material)		End-of-life emissions including biogenic carbon(tCO2e/t material)		End-of-life emission excluding biogenic carbon(tCO2e/t material)		End-of-life biogenic emissions(tCO2(b)e/t material)	
		EF	Emission and removal sources included	EF	Emission and removal sources included	EF	Emission and removal sources included	EF	Emission and removal sources included	EF	Emission and removal sources included	EF	Emission and removal sources included
Example of bio-based material without end-of-life recycle	A	1	*Emissions from energy consumption during the extraction, processing and preparing of the raw material * Land use change emissions due to the production of the raw material *Emission removals	2	*Emissions from energy consumption during the extraction, processing and preparing of the raw material * Land use change emissions due to the production of the raw material	-1	*Emission removals sunk in the biomaterial	6	*Emissions from all (including bio-genic and fossil-genic emissions)carbon content release during the waste treatment process * Emissions from energy consumption due to the waste treatment process * Gas leakage during the waste	5	*Emissions from a fossil-genic emissions carbon content release during the waste treatment process * Emissions from energy consumption due to the waste treatment process * Gas leakage during the	1	Bio-genic emissions from releasing of bio-based carbon back to the atmosphere.

			sunk in the biomaterial						treatment process * note that when energy recovery occurs in the process the emission shall be counted as scope 1 and 2 energy and not 3.5 or 3.12		waste treatment process * note that when energy recovery occurs in the process the emission shall be counted as scope 1 and 2 energy and not 3.5 or 3.12		
Example of bio-based material with end-of-life recycling	A(recycled)	I am not sure about the calculation principle here. I only leave the place-holder for a scenario to be considered without providing my recommendation. I would suggest that we take an “either or approach”: the emission removal can only be claimed once in category 1 or category 5/12. But in most of the time the company has no control nor little knowledge about their recycling situation of their end products(category 12), I would suggest that unless the company can provide evidence that the end-of-life is recycled, it cannot claim the removal in category 5/12. But when a company can prove the recycling and claimed the removal in end-of-life the same removal cannot be claimed in category 1. Maybe a product ‘s designed life time is a good indicator here : for any product with designed life-time less than 100 year, no carbon removal in category 1 is allowed. Then we have to all use the emission factor excluding biogenic carbon (0-0 approach.) When a product lifetime is less than 100 year, but the company can prove its end -of-life recycling then the removal can be claimed in category 5 or 12 (especially for category 5, most of the time the company sells that waste to another company as raw material)											

Example of fossil based material with end of life recycle	B	3	Emissions from energy consumption during the material recycling, processing and preparation of the raw material	3	Emissions from energy consumption during the material recycling, processing and preparation of the raw material	0	Not relevant	0.5	*No material released emission is allocated considering that the fossil carbon are still contained in the material in a new production loop *Emissions from energy consumption for preparation and transportation of the waste.	0.5	*No material released emission is allocated considering that the fossil carbon are still contained in the material in a new production loop *Emissions from energy consumption for preparation and transportation of the waste.	0	Not Relevant
Example of fossil-based non-recycled material	C	2	*Emissions from energy consumption during the extraction, processing	2	*Emissions from energy consumption during the extraction, processing	0	Not relevant	6	*Emissions from a fossil-genic emissions carbon content release during the waste	6	*Emissions from a fossil-genic emissions carbon content release during the	0	Not Relevant

with end-of-life treatment without energy recovery			and preparing of the raw material		and preparing of the raw material				treatment process *Emissions from energy consumption for preparation and transportation of the waste.		waste treatment process *Emissions from energy consumption for preparation and transportation of the waste.		
Example of fossil-based non-recycled material with end-of-life treatment with energy recovery	D	2	*Emissions from energy consumption during the extraction, processing and preparing of the raw material	2	*Emissions from energy consumption during the extraction, processing and preparing of the raw material	0	Not relevant	0.5	*Emissions from energy consumption for preparation and transportation of the waste. *Emissions from the release of fossil-genic carbon content are allocated to energy related scope 1, 2 or scope 3 category 3, therefore not counted for scope 3 category 12.	0.5	*Emissions from energy consumption for preparation and transportation of the waste. *Emissions from the release of fossil-genic carbon content are allocated to energy related scope 1, 2 or scope 3 category 3,	0	Not Relevant

											therefore not counted for scope 3 category 12.		

For calculating scope 3 category 1, the company shall use emission factors **excluding biogenic** emissions (of course WRI shall define which emission factor shall be used. I only explain my recommended approach here and open for corrections) with bio-removal as a sperate reporting item. For 1 ton of the above listed materials ,their scope 3 category 1 emissions should be:

Product A: 1 ton* 2 tonCO2e/ton material = 2 tCO2e with 1 tons of removals
Product B: 1ton*3 tonCO2e/ton material = 3 tCO2e
Product C: 1ton* 2tonCO2e/ton material = 2 tCO2e

For calculating scope 3 category 5 and category 12, End of Life emission factor with emission factor **excluding biogenic** emissions shall be used with biogenic emissions reported as a sperate item. For 1 ton of waste from the following products, the waste related emissions are:

Product A: 1 ton*5 tonCO2e/ton material = 5 tCO2e with 1 tons bio-based emissions 1tCO2e(b)
Product B: 1ton*0 tonCO2e/ton material = 0 tCO2e
Product C: 1ton*6tonCO2e/ton material = 6tCO2e

Please note that when energy recovery is applied during the waste treatment process, the company shall apply emission factor 0, because relevant emissions are allocated to energy related emissions which will be reflected to scope 1 or 2 emissions, if the company purchase energy from the same waste-based power plant.