Greenhouse Gas Protocol Overview

Greenhouse Gas Protocol (GHG Protocol) is a multi-stakeholder partnership of businesses, non-governmental organizations (NGOs), governments, and others convened by the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD). Launched in 1998, the mission of GHG Protocol is to develop internationally accepted greenhouse gas (GHG) accounting and reporting standards and tools, and to promote their adoption to achieve a low emissions economy worldwide.

Approach

Key elements of Greenhouse Gas Protocol’s approach include:

- **Develop guidance through a global, inclusive, multi-stakeholder process** in partnership with companies, government agencies, NGOs, and other experts and stakeholders from around the world. GHG Protocol has twenty years of experience convening global stakeholders to develop consensus GHG accounting methodologies. GHG Protocol follows the same type of global, inclusive, and open multi-stakeholder process used to develop the GHG Protocol Corporate Standard (2004), the GHG Protocol for Project Accounting (2005), the Corporate Value Chain (Scope 3) Standard (2011), and the Product Life Cycle Standard (2011).

- **Ensure rigorous and user-friendly technical design** to ensure a true and fair account of emissions and removals aligned with international best practices and key GHG accounting principles (relevance, accuracy, completeness, consistency, transparency, and conservativeness, permanence, and comparability if relevant to the accounting topic).

- **Pilot test draft guidance** by a set of companies to gain real-world feedback on the practicality and usefulness of draft guidance and ensure that the final guidance is well-suited to their needs.
Governance and Development Process

Overview

WRI and WBCSD convene a series of stakeholder groups as part of the global, inclusive, multi-stakeholder guidance development process. The stakeholder groups are balanced by including participation from diverse geographies and include a range of government, business, and civil society participants. All outputs are subject to a comprehensive review by any interested stakeholders.

The governance process to oversee and develop the new guidance consists of five groups:

- Secretariat
- Advisory Committee
- Technical Working Group(s)
- Review Group
- Pilot Testing Group

<table>
<thead>
<tr>
<th>GROUP</th>
<th>RESPONSIBILITIES</th>
<th>COMMITMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secretariat (WRI and WBCSD)</td>
<td>Convene, facilitate, and oversee process</td>
<td>Provide dedicated staff</td>
</tr>
<tr>
<td>Advisory Committee</td>
<td>Provide strategic guidance on the goals and direction of the project</td>
<td>Participate in 2-4 meetings per year</td>
</tr>
<tr>
<td>Technical Working Group(s)</td>
<td>Develop the technical content of the guidance</td>
<td>Participate in biweekly conference calls during the development of the first draft (unless fewer calls are necessary); and the necessary time to prepare and review materials (approx. 5-10 hours per month)</td>
</tr>
<tr>
<td>Review Group</td>
<td>Review and provide feedback on draft guidance produced through the working group process</td>
<td>At the discretion of the participant, review and provide written comments on draft guidance</td>
</tr>
<tr>
<td>Pilot Testing Group</td>
<td>Implement the draft guidance and provide feedback for their improvement</td>
<td>Implement the draft guidance; provide feedback on the strengths and weaknesses of the draft guidance; generate case studies to be included in the final publication(s)</td>
</tr>
</tbody>
</table>

Decision-making process

Each group (1. Secretariat, 2. Advisory Committee, 3. Technical Working Group(s), 4. Review Group, and 5. Pilot Testing Group) plays a distinct role in the development and decision-making process of the GHG Protocol standard or guidance. The GHG Protocol Secretariat aims to facilitate decision-making on the various elements of the guidance by evaluating options according to the decision-making criteria.

Decisions and development of GHG Protocol standards and guidance are made according to the GHG Protocol decision-making criteria and hierarchy, explained below.
**GHG Protocol decision-making criteria and hierarchy**

1. First, GHG Protocol accounting and reporting approaches shall meet the GHG Protocol accounting and reporting principles (see below), and shall align with the latest climate science and global climate goals (i.e. keeping global warming below 1.5°C).

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

3. Third, 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.

**TABLE 2 • GHG Protocol accounting and reporting principles**

<table>
<thead>
<tr>
<th>PRINCIPLE</th>
<th>DEFINITION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relevance</td>
<td>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.</td>
</tr>
<tr>
<td>Completeness</td>
<td>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.</td>
</tr>
<tr>
<td>Consistency</td>
<td>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.</td>
</tr>
<tr>
<td>Transparency</td>
<td>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.</td>
</tr>
<tr>
<td>Accuracy</td>
<td>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.</td>
</tr>
<tr>
<td>Conservativeness</td>
<td>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.</td>
</tr>
<tr>
<td>Permanence</td>
<td>Ensure mechanisms are in place to monitor the continued storage of reported removals, account for reversals, and report emissions from associated carbon pools.</td>
</tr>
</tbody>
</table>

**Terms of reference for stakeholder groups**

See below for additional details on the composition, responsibilities, decision-making process, commitment, and acknowledgment for each of the groups.

**Secretariat**

WRI and WBCSD convene and facilitate the guidance development process and act as the Secretariat.

**Responsibilities**

- Convene participants
- Raise funds to support the process
- Facilitate and coordinate meetings of the advisory committee, technical working groups, and stakeholder workshops
• Draft written inputs into the Advisory Committee and Technical Working Group process, including background on relevant standards and methodologies, accounting issues and challenges, and key decisions to be made by each group
• Draft sections of the standards/guidance
• Recruit pilot testers and manage pilot testing
• Ensure consistency and user-friendly presentation in the final standards across all sections developed by the technical working groups
• Produce final publications, taking into account feedback received to ensure the highest quality

**Decision Making Process**

In cases where the Technical Working Group and Advisory Committee is unable to reach consensus recommendations, the Secretariat retains the authority to make a final decision, guided by the majority viewpoint and the GHG Protocol decision-making criteria and hierarchy described above.

**Advisory Committee**

The Advisory Committee provides strategic guidance on the goals and direction of the project.

**Composition**

The Advisory Committee consists of key advisors with a strategic or technical leadership role in the GHG accounting and reporting ecosystem. Participation in the Advisory Committee is by invitation only.

**Responsibilities**

1. Strategic guidance
   i. Provide advice on the objectives and scope of the standards/guidance
   ii. Provide advice and guidance on objectives and composition of working groups and ensure that working group outputs are consistent with established objectives
   iii. Provide guidance on the topics to be addressed by the Technical Working Groups
   iv. Support broad adoption and use of the standards/guidance by companies, GHG reporting and target setting programs/initiatives, governments, financial institutions, and civil society

2. Technical and policy guidance
   i. Recommend solutions to major technical or policy disagreements or questions when the Technical Working Groups are unable to reach consensus and/or provide solutions (e.g., technical questions include what types of methods are available, while policy questions include what types of methods should be required or optional).

3. Standards/guidance review
   i. Review draft standards/guidance from the Technical Working Groups for relevance, accuracy, consistency, and completeness.

**Decision Making Process**

Members of the Advisory Committee provide inputs and recommendations on key questions. In cases where the Advisory Committee is unable to reach consensus recommendations, the Secretariat retains the authority to make a final decision, guided by the GHG Protocol decision-making criteria and hierarchy.
Commitment
Advisory Committee members are requested to make a two-year commitment to participate in the standards/guidance development process. This is expected to involve:

- 2-4 meetings per year (for 3 years)

Acknowledgement
Members of the Advisory Committee are acknowledged as such and listed by name and affiliation in the final publication.

Technical Working Group(s)
Members of the Technical Working Group(s) develop the technical content of the standards/guidance. The number of Technical Working Groups is to be determined.

Composition
Each Technical Working Group(s) consists of experts from business, government, academia, and NGOs with technical backgrounds and expertise in relevant standards or guidance under development or updates. A Secretariat staff member is designated as a facilitator for each group.

Responsibilities
- For the set of technical accounting issues designated to the group: review relevant existing methodologies and practices; analyze the issues and challenges; and develop recommendations around the content of standards/guidance
- Draft sections of text on the designated topics and review draft text at frequent intervals
- Receive and respond to feedback on draft chapters from the Advisory Committee, the Review Group, the pilot testing phase, and public comment periods

Decision-Making Process
The Technical Working Groups seek to reach consensus recommendations on each aspect of the standards/guidance. If the Technical Working Group is unable to reach a consensus, the group provides the Advisory Committee with a set of options for review and recommendation, indicating the relevant advantages and disadvantages of each option. In cases where the Advisory Committee is unable to reach a consensus, the Secretariat retains the authority to make a final decision, guided by the majority viewpoint and decision-making criteria and hierarchy.

Commitment
Technical Working Group Members are requested to make a two-year commitment to participate in the standards and guidance development. This is expected to involve:

- 2 conference calls per month during the first draft development (unless fewer calls are necessary), with optional participation in additional conference calls in sub-groups as needed
- Occasional calls after the first draft is developed, as needed
- The necessary time to prepare and review materials (approx. 5-10 hours per month)

Acknowledgement
Members of the Technical Working Groups are acknowledged as Technical Working Group Members and listed by name and affiliation in the final publication.
**Review Group**

The Review Group provides feedback on the draft guidance as it is produced through the working group process.

**Composition**

The group consists of any interested stakeholders from government, business, NGOs, academia, etc.

**Responsibilities**

At the discretion of the individual participant, provide written feedback on draft guidance. Comments from the Review Group will be incorporated at the discretion of the Technical Working Groups, Advisory Committee members, and the Secretariat.

**Commitment**

Receive draft guidance and provide written feedback at the discretion of the individual participant.

**Acknowledgement**

Stakeholders who submit comments as part of the Review Group are acknowledged and recognized as Reviewers and listed by name and affiliation in the final publication.

**Pilot Testing Group**

After the draft guidance is prepared, companies and organizations have an opportunity to test the draft guidance to ensure that it can be practically implemented, provide any feedback for its improvement, and serve as important case studies in the final publication. The Secretariat provides technical support to Pilot Testers in implementing the draft guidance. Feedback from the pilot testing is incorporated into the final version of the guidance.

Pilot testing companies will pilot test the draft Guidance by developing a GHG inventory using the guidance. Supporting partners will provide technical support to the pilot testing companies of their choice in the form of implementation resources (such as data and tools), trainings, calls, and/or other activities.

**Composition**

The group consists of selected organizations representing a diversity of sectors and geographic locations.

**Responsibilities**

- Implement the draft guidance
- Provide detailed, constructive feedback on the strengths and weaknesses of the draft guidance
- Generate case studies to be included in the final publication

**Commitment**

Commit to testing and implementing the draft guidance, providing feedback through a questionnaire, and developing a case study.

**Acknowledgement**

Pilot testers will be recognized as Pilot Testers and listed by affiliation in the final publication.
Annex: Governance Process for Land Sector and Removals Guidance (under development)

Below illustrates the application of the governance process in the development of the Land Sector and Removals Guidance, which is currently in the pilot testing phase.

**FIGURE 1 • Land Sector and Removals Guidance decision-making process**

**FIGURE 2 • Land Sector and Removals Guidance project timeline**
List of Land Sector and Removal Guidance stakeholder group members

Advisory Committee Members

- Greg Downing, Cargill
- Thomas Maddox, CDP
- Frances Wang, ClimateWorks Foundation
- Nicolas Gordon, CMPC
- Michele Galatola, European Commission
- Till Neeff, Food and Agriculture Organization of the United Nations
- Owen Hewlett, Gold Standard
- Uwe Fritsche, IEA Bioenergy / IINAS
- Andreas Ahrens, IKEA
- Kevin Rabinovitch, Mars
- Gladys Naylor, Mondi
- Conor McMahon, Nestlé
- Jon Dettling, Quantis International
- Leah Samberg, Rainforest Alliance
- Alex Cantlay, Shell
- Antti Marjokorpi, Stora Enso
- Cristiano Resende De Oliveira, Suzano
- Volker Sick, Global CO2 Initiative / University of Michigan
- Martha Stevenson, WWF
- Bernhard Stormyr, Yara

Technical Working Group Members

- Maya Kelty, 3Degrees
- Richard Sheane, 3Keel
- Beatriz Shanez Jimenez, Aether UK
- Jad Daley, American Forest
- Edie Sonne Hall, American Forest Foundation
- Caroline Gaudreault, Anthesis
- Sofyan Kurnianto, Asia Pacific Resource Holdings International
- Annette Cowie, Australia NSW Dept. of Primary Industries / IEA Bioenergy
- Tilmann Silber, Barry Callebaut
- Monica McBride, Bayer
- Amargit Singh, Biz Excellence Systems Sdn Bhd
- Mike McMahon, BP
- Yuki Hamilton Onda Kabe, Braskem
- Mounyelle Nkake Manfred Claude Cyrille, Cameroon Ministry of External Relations
- John Kazer, Carbon Trust
- César Dugast, Carbone 4
- Pedro Faria, CDP
- Peggy Kellen, Center for Resource Solutions
- Juan Jose Rincon Cristobal, Climate Change Atelier, S.L.
- Louis Uzor, Climeworks
- Catharina Hohenthal, Confederation of European Paper Industries
- Marie-Pierre Bouquet Lecomte, Danone
- Edwin Alders, DNV GL
- Michael Goldsworthy, Drax
- Caroline Wade, Ecosystem Services Market Consortium
- Thibaut Brac de la Perriere, EDF
- Joe Rudek, Environmental Defense Fund
- Braulio Pikman, Environmental Resources Management Brazil
- Jessie Dzura, Enviva Biomass
- Harmen Dekker, European Biogas Association
- Parminder Plahe, European Investment Bank
- Valeria De Laurentiis, European Joint Research Centre
- Jesse Scharf, European Renewable Gas Registry
- Sudha Padmanabha, Fair Climate Services Pvt. Ltd.
- Allison Thomson, Field to Market
- William Gischlar, Firmenich Inc.
- MaryKate Bullen, Forest Investment Associates
- Pina Gervassi, Forest Stewardship Council
Review Group

Over 1,200 individuals are signed up to the review the draft guidance. Reviewers will be acknowledged in the final publication based on completion of the review.

Pilot Testing Companies (as of Sep 7, 2022)

Pilot testing companies that have agreed for their names to be shared at this stage are listed below. Please note that public acknowledgement in the final publication of the guidance will be determined by which organizations complete the pilot testing process and will be confirmed in a later stage.

A.P. Moller - Maersk A/S
AB InBev
ABP Food Group
ADM
Altri Florestal
AMAGGI
Ansell
APRIL
Aptar

A.P. Moller - Maersk A/S
AB InBev
ABP Food Group
ADM
Altri Florestal
AMAGGI
Ansell
APRIL
Aptar
Arauco  
Arla Foods  
Ayala Land Inc  
Barry Callebaut Sourcing AG  
Birla Cellulose, Aditya Birla Group  
Bonnefield Inc  
Brambles  
Braskem  
BTG Pactual Timberland Investment Group ("TIG")  
Bunge  
Bush Heritage Australia  
Canadian Forest Products Ltd.  
Cargill, Inc  
CDPQ  
Church Commissioners of England  
Clean Energy  
CMPC  
Corteva Agriscience  
Danish Crown  
Dawn Meats Group and Dunbia  
Dexco S.A  
Dow Inc.  
Drax  
Forest Investment Associates  
FrieslandCampina  
General Mills  
GFL Environmental  
Givaudan  
Green Asia Network  
Greenwood / Westchester – Nuveen  
Grupo Alimenta  
Hancock Natural Resource Group (HNRG), a Manulife Investment Management company  
Hedeselskabet  
Hilton Food Group  
IKEA Industry  
Ingka Investments  
INTER IKEA  
International Paper  
International Woodland Company A/S  
Jackson Family Wines  
Kimberly-Clark Corporation  
Land O’Lakes, Inc.  
Lenzing AG  
LRF (Federation of Swedish Farmers)  
Maple Leaf Foods  
Mars Incorporated  
McDonald’s  
MIGUEL TORRES S.A.  
Mondi  
National Trust  
Neste Oyj  
Nestle  
New Forests  
Noosa Council  
Northern Lights JV  
Nutrien  
OCP Group  
Olam International Limited  
Panera Bread  
PepsiCo  
Pernod Ricard  
Petalon Limited  
Philip Morris SA  
Preferred by Nature  
Rabobank  
Rayonier, Inc  
Republic Services  
Resolute FP  
Sappi Southern Africa Ltd (Forests only)  
Shell  
Sinatur  
Stockholm Exergi  
Stora Enso Oyj  
Sundown Pastoral Company (Good Earth Cotton)  
Suzano S.A.  
Sveaskog  
Svenskt Butiks kött  
SVOA: Stockholm Vatten och Avfall, Municipal Community Company  
Sylvamo  
Tate & Lyle  
The New Zealand Merino Company  
The Procter & Gamble Company  
The Royal Society for the Protection of Birds (RSPB)  
TotalEnergies  
Tyson Foods, Inc.  
Unilever  
UPM  
UPS  
VALE SA  
Wasa, part of Barilla Group  
Waste Management, Inc.  
Weyerhaeuser  
World Energy  
Yeo Valley Farms
Pilot Testing Supporting Partners (as of June 24, 2022)

Supporting partners that have agreed for their names to be shared at this stage are listed below. Please note that public acknowledgement in the final publication of the guidance will be determined by which organizations complete the pilot testing process and will be confirmed in a later stage.

2050 Consulting AB
3p metrics
ACT Commodities
AdAstra Sustainability
AECOM
Aether Ltd
AFRY Management Consulting Oy
Association for Solidarity through Humanitarian Imperative Action (ASHIA) International
BetterGreen
Carbon Friendly Pty Ltd
Carbon Intelligence
Carbon Trust
Carbone 4
Carbonsink Group Srl
CCS+ Initiative, Perspectives
CEADS
CEBDS - Conselho Empresarial Brasileiro para o Desenvolvimento Sustentável
Center For Conservation Innovations PH Inc.
Chavereys
Climate Change Atelier, S.L.
Climate Positive Consulting
ClimatePartner GmbH
Deloitte
Denkstatt
Descartes Labs
ecoinvent
Ecosystem Services Market Consortium
Embrapa
EpE - Entreprises pour l’Environnement
ERM
European Carbon Farmers
Forest Stewardship Council
Field to Market: The Alliance for Sustainable Agriculture
Gidås Hållbarhetsbyrå
Green Solutions
Guidehouse
Lestari Capital
Mullion Group
NCASI
NEL-i
Perspectives Climate Group
Planetly GmbH
Plantar Carbon
Quantis
Ramboll
Rede Empresarial Brasileira de Avaliação de Ciclo de Vida (Rede ACV)
RMI, Sustainable Aviation Buyer’s Alliance (SABA) co-led by RMI and Environmental Defence Fund (EDF)
ROAD2ZERO
South Pole
Textile Exchange
The Delphi Group
The Initiative for Climate Action and Development (ICAD)
The Nature Conservancy
University of Oxford
Verra
WRAP
WSP