World Business Council for Sustainable Development

WORLD RESOURCES INSTITUTE

GHG Protocol Product and Supply Chain Initiative

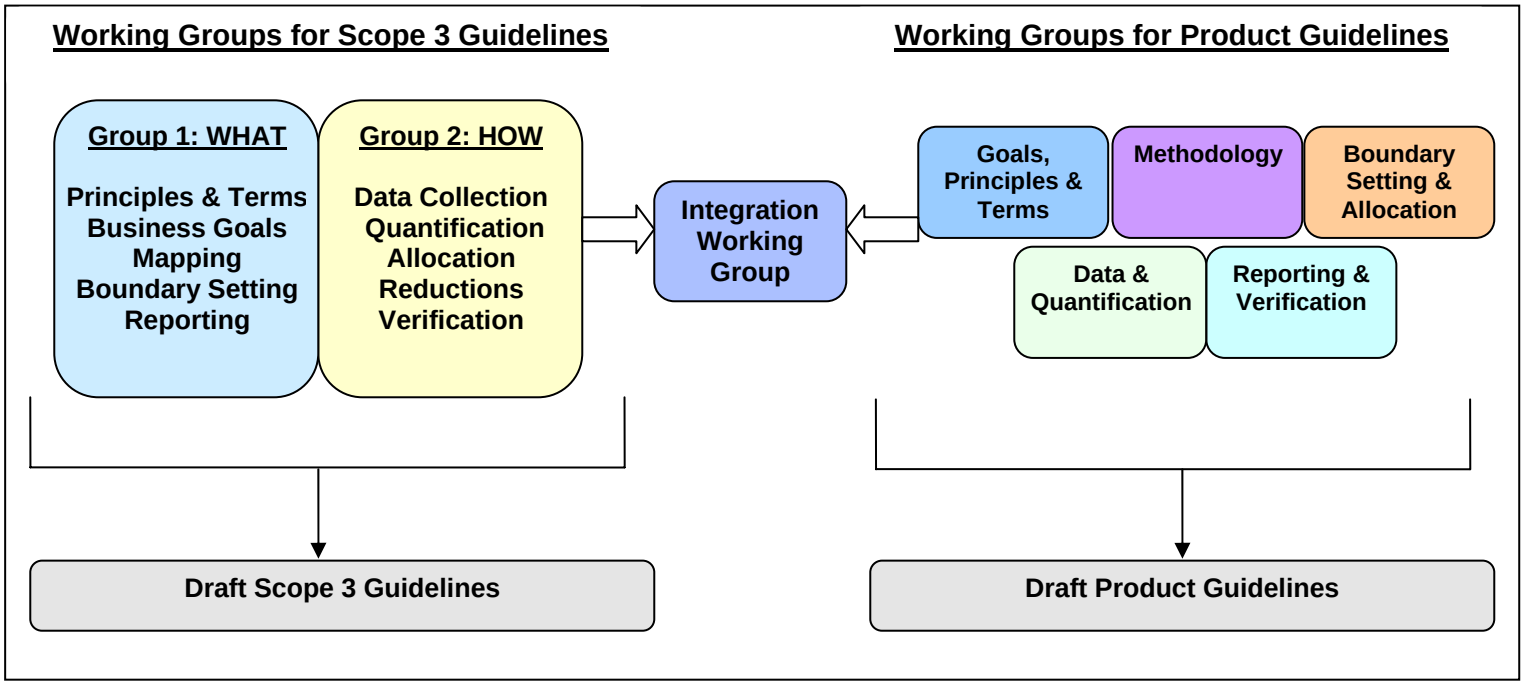
Proposed List of Technical Topics

Seven technical working groups have been established to develop two new GHG Protocol publications:

- Corporate level value chain (scope 3) accounting and reporting guidelines, and
- Product life cycle accounting and reporting guidelines

This document contains a proposed list of technical topics expected to be included in the two new guidelines. All topics are in draft form and subject to change throughout the development process.

The seven groups are as follows:



Corporate Value Chain (Scope 3) Accounting & Reporting Guidelines

Working Group 1: *What*

1. Accounting Principles and Terms
- Standardize terms (product, supply chain, upstream, downstream, etc.)
- Review accounting principles and assess need for new principles

2. Identifying business goals
- Guidance on defining business goals and associating business goals with specific approaches/data/methods (e.g. public reporting, including scope 3 in corporate reduction targets, etc.)
- Case studies

3. Mapping the value chain
- Standard mapping templates, including scopes across the value chain
- Examples of value chain maps by sector
- Links to product level accounting
- Case studies

4. Defining boundaries
- Guidance on selection of organizational boundaries in relation to scope 3
- Standard definition of scope 3 sub-categories (upstream/downstream, products purchased/sold, activity types, etc.)
- Elaboration of each type of scope 3 activity
- Guidance on identifying relevant (i.e., significant, material) scope 3 activities, within product categories and across product categories/business units/activities
- Develop screening methods (quantitative) [e.g., input-output databases, secondary LCA databases, major suppliers by revenue, etc.]
- Develop screening criteria (qualitative)
- Develop significance thresholds for including/excluding scope 3 activities; guidance on including a specified percentage of total scope 3 emissions
- Table of relevant scope 3 activities by sector
- Consider requirements for including and reporting scope 3 activities, either common requirements across companies or separate requirements by sector
- Address issues surrounding double counting of scope 3 emissions between multiple companies (e.g. within a supply chain)
- Links to product level accounting
- Case studies

9. Reporting and communication
- Develop standard public reporting format including scope 3 sub-categories
- Performance metrics and KPI by sector
- Reporting different types of data (actual vs. estimated, etc.)
- Reporting template for B2B data exchange
- Guidance on interpreting scope 3 emissions
- Communicating uncertainty
- Case studies

Working Group 2: *How*

5. Collecting data

- Company-specific (primary) data
  - Guidance on collecting primary data within the company
  - Guidance on identifying and interacting with partners within supply chains, including methods for business-to-business data exchange
  - Guidance on managing confidential business information
  - Develop standard reporting templates for B2B data exchange; what data is needed from your supplier; what data is needed by your customer; how to disaggregate scope 1, 2, and 3 emissions by product category; etc.
  - Case studies and examples by sector
- Generic (secondary) data
  - Guidance on collecting secondary data from published databases, including recommended sources
- Guidance on use of product-level data in scope 3 inventories
- Requirements/guidance for use of primary data (company-specific) versus secondary data (average data, modeling data)
- Data quality assessment, data quality tiers, and use of certain types of data to fulfill different business goals
- Managing data quality

6. Calculating emissions

- Selection of allocation methods (mass, volume, economic value, etc.); requirements, criteria and/or guidance for use of methods
- Quantifying GHG emissions for each scope 3 activity: raw material extraction, raw material production, raw material transportation, product distribution, product storage, packaging, retail, product use, waste disposal, business travel, employee commuting, outsourced activities, leased assets, etc.
- Incorporating product-level data to calculate scope 3 emissions
- Emission factors and global warming potential (GWP) factors
- Quantifying uncertainty
- Table of data sources and calculation methods by sector and activity type
- Links to product level accounting
- Case studies
- Identify need for new calculation tools, such as: extraction and production of purchased products; product transport; product storage; use of sold products; waste disposal; etc.

7. Setting a reduction target

- New guidance if necessary on setting and recalculating the base period for performance tracking in relation to scope 3 emissions
- New guidance if necessary on setting a GHG target in relation to scope 3 emissions
- New guidance if necessary on accounting for scope 3 reductions,

including avoided GHGs from use of sold products • Case studies
8. Verification • Guidance on verification • Case studies

Product Life Cycle Accounting and Reporting Guidelines

Goals, Principles and Terms Working Group

1. Accounting Principles and Terms • Standardize terms (product, supply chain, primary data, etc.) • Develop accounting principles (e.g., completeness, accuracy, etc.) • Links between product accounting, corporate accounting and project accounting
2. Identifying Business Goals • Guidance on defining business goals of product life cycle accounting (performance improvement, procurement policy, public reporting, etc.) and how to clearly define a company's goals before beginning the inventory process • Explanation of how choice of business goals influences the methods/data needed for the inventory • Guidance on incorporating non-GHG environmental impacts into business decision-making (hazardous materials, water consumption, etc.) • Guidance on identifying 'priority products' within the company – those that will benefit the most through product GHG accounting • Case studies

Methodology Working Group

3. Key Methodologies • Guidance/requirements/criteria for applying methodologies: process LCA, input-output analysis, hybrid LCA, others
4. Setting the Unit of Analysis • Discussion on differences between product-based and function-based analyses and the advantages and disadvantages of each • Requirements/guidance for using product- or function-based approach • Requirements/guidance for defining the functional unit, if applicable • Guidance for functional unit analyses of products that serve multiple functions, if applicable

- Case studies

Boundary Setting and Allocation Working Group

5. Boundary Setting

- Standard definition of life cycle stages
- Guidance on mapping product life cycles, including standard mapping templates; examples of life cycle maps by sector; links to corporate level value chain mapping; and case studies
- Guidance on setting the system boundary for the inventory
- Guidance on boundary setting when using a process-based approach versus a hybrid-based approach (i.e., combining process-level data with input-output data)
- Elaboration and examples of each life cycle stage
- Examples of system boundaries for products from different sectors
- Guidance on developing and implementing materiality thresholds
  - For individual unit processes
  - For whole life cycle stages
- Defining how capital goods are treated and whether or not they are included in a product-level inventory
- Defining the temporal boundary (i.e., time frame for impacts)
- Setting boundaries for recyclable products and products using recycled materials
- Whether and how to include removals/sequestrations
- Whether and how to include storage of carbon in products and delayed emissions release from products
- Whether and how to include direct and indirect impacts (e.g., land use change)
- Whether and how to include secondary/market effects
- Links to boundary setting at the corporate level
- Case studies

6. Allocation

- Requirements/guidance for selecting allocation methods at the product level (e.g., mass, volume, energy content, economic value)
- Consider use of system expansion and provide guidance if appropriate
- Selection of allocation method for open-loop recycling processes
- Links to corporate level (scope 3) allocation methods and consider the need for consistency
- Case studies

Data and Quantification Working Group

7. Collecting Data

- Requirements/guidance for use of primary data (company- or process-specific) versus secondary or estimated data (industry average, literature review, LCI databases, etc.)
- Guidance on collecting primary data, both within the company and from external companies, including
  - Guidance on identifying and interacting with partners within supply chains, including methods for business-to-business data exchange
  - Guidance on managing confidential business information
  - Develop standard reporting templates for B2B data exchange; what data is needed from/by your supplier; what data is needed from/by your customer; how to disaggregate scope 1, 2, and 3 emissions by product category; etc.
  - Guidance on using sampling and averaging when collecting data from suppliers
  - Case studies and examples by sector
- Guidance on collecting secondary data from published databases, including recommended sources
- Guidance on selecting emission factors (e.g., for fuels, electricity, etc.) and use of global warming potential (GWP) factors
- Data quality assessment and quality standards
- Matching data quality requirements with business goals
- Use of Product Category Rules (PCRs), where applicable
- Whether and how to include secondary/market effects (e.g., using forecasting data and consequential modeling)
- Guidance on managing data confidentiality and proprietary concerns
- Guidance on requirements for verifying data quality
- Case studies

8. Calculating Emissions

- Quantifying GHG emissions (CO_2, CH_4, N_2O, HFCs, PFCs, SF_6) for each life cycle stage: raw material extraction, raw material production, raw material transportation, product distribution, product storage, packaging, retail, product use, waste disposal, etc.
- Guidance for estimating emissions from variable and dynamic supply chains, including use of averaging
- Quantifying uncertainty; guidance for how reducing uncertainty may increase data requirements; guidance on how to manage the trade-off between accuracy and cost; requirements/guidance on appropriate level of uncertainty
- Requirements/guidance for what methods/data must be used to meet various business goals, e.g. using consistent methods to support product comparisons
- Using sensitivity analysis to strengthen LCA robustness

- Case studies
- Identify need for new calculation tools, such as product transport; product storage; product use; waste disposal; recycling; etc.

Reporting and Verification Working Group

9. Managing Inventory Quality

- Identifying quality management measures
- Guidance on data completeness and responding to data gaps
- Guidance on reducing model and data uncertainty
- Case studies

10. Verification

- Guidance on verification

11. Reporting and Communication

- Developing a standard public reporting format (e.g. product information sheets)
- Reporting a single value versus a range of values (e.g. confidence interval)
- Reporting templates for B2B data exchange
- Reporting data quality and data source (primary, secondary)
- Listing the forms of external communication supported by the protocol (tied to goal setting)
- Guidance on interpreting product-level emissions and making comparisons across products/product categories
- Communicating uncertainty and limitations of using the data to support certain applications and decisions
- Case studies

Additional Topics to be Addressed

12. Accounting for GHG Reductions

- Guidance on accounting for product-level GHG reductions
- Case studies

13. Performance Tracking

- Guidance on setting and recalculating the base period for performance tracking of product-level emissions
- Case studies

14. Target Setting

- Guidance on setting a product-level GHG reduction target
- Treatment of GHG offsets
- Case studies