



FUNDAMENTALS OF ORGANIZATIONAL GHG ACCOUNTING

FOR ENVIRONMENTAL AND GHG SPECIALISTS

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ENVIRONMENTAL SPECIALIST CURRICULUM





ELEMENTS OF GHG INVENTORY REPORTS

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LEARNING OBJECTIVES





In this lesson, you will learn how to present information about your organization's GHG emissions in a GHG inventory report that adheres to internationally accepted standards.

- ✓ List the minimum required elements for GHG inventory reports to be compliant with internationally accepted reporting requirements.
- ✓ Recognize optional information that should be included in a GHG report if it is applicable to your company's circumstances.
- ✓ Be aware of different GHG programs and registries where public GHG reports can be made.

GENERAL GHG REPORT GUIDELINES

- ✓ A GHG inventory report should be based on the best data available at the time of publication, while being transparent about the data's limitations.
- ✓ It should communicate any material discrepancies identified in previous years.
- ✓ It should also include the organization's gross emissions for its chosen inventory boundary separate from and independent of any GHG emission offsets or trades it might have engaged in.
- ✓ Reported information should be relevant, complete, consistent, transparent and accurate – that is, it should adhere to generally accepted accounting principles.

REQUIRED REPORTING ELEMENTS

The information required by the GHG Protocol in an inventory report can be divided into two main components:

- ✓ Description of the organization and its inventory boundary
- ✓ Information on emissions

Required organization description and boundary

- ✓ The GHG inventory report must include:
 - An outline of the organizational boundary chosen, including the chosen consolidation approach.
 - An outline of the operational boundaries chosen, and if scope 3 is included, a list specifying which types of activities are covered.
 - The reporting period covered by the report (typically in terms of calendar years).

REQUIRED INFORMATION ON EMISSIONS

- ✓ Total Scope 1 and 2 emissions.
 - Emissions should be reported prior to and independent of GHG emissions trades (sales, purchases, transfers, or banking of offset credits, emission allowances, or other deductions such as for Renewable Energy Certificates).
- ✓ Emissions data reported separately for each scope:
 - ✓ Emissions data for all GHGs [popup] separately in absolute metric tonnes and in tonnes of CO₂ equivalent (using GWP values). Specifically, emissions for each chemical species of HFC and PFC should be reported separately.
 - ✓ A clear description of the base year used and the base year recalculation policy.
 - ✓ Appropriate context for any significant emissions changes that trigger recalculation
- ✓ Emissions data for direct CO₂ emissions from carbon of a biogenic origin (e.g., CO₂ from burning of biomass and biofuels), reported separately from the scopes.
- ✓ Methodologies used to calculate or measure emissions, providing references to any calculation tools used.

OPTIONAL GHG REPORT INFORMATION

✓ Some information is optional for reporting. All optional information items will not apply to every company or organization; however this information should be reported by organizations for which it is relevant. Including this information can help ensure the inventory is consistent with GHG accounting principles.

✓ There are 4 categories of optional information:

- Information on emissions
- Information on performance
- Information on offsets
- Other optional information

✓ Optional information on emissions

■ Optional information on emissions can include:

- ⌚ Emissions data from relevant scope 3 emissions activities
- ⌚ Some programs or industry associations may require reporting of some Scope 3 emissions (e.g., clinker in cement production).

■ To further aid in transparency, emissions data further subdivided by business units/facilities, country, source and activity types.

OPTIONAL GHG REPORT INFORMATION

■ Emissions attributable to own generation of electricity, heat, or steam that is sold or transferred to another organization

■ Emissions from GHGs not covered by the Kyoto Protocol (e.g., CFCs, NOx), reported separately from scopes.

■ Information on the causes of emissions changes that did not trigger a base year emissions recalculation

■ GHG data for all years between the base year and the reporting year

■ Information on any GHG sequestration (i.e., biological or geological)

OPTIONAL INFORMATION ON PERFORMANCE

Information on performance can include:

■ A description of performance measured against internal and external benchmarks

■ Relevant ratio performance indicators (e.g., emissions per kilowatt-hour generated, tonne of material production, or sales)

■ An outline of any GHG management/reduction programs or strategies

■ Information on any contractual provisions addressing GHG-related risks and obligations

REPORTING INFORMATION ON OFFSETS



- ✓ Reporters can optionally choose to include information regarding GHG emission offsets separately from its GHG inventory.
- Offsets should not be directly deducted from a company's report of Scope 1, 2, and 3 emissions but should be reflected separately as optional information.
- ✓ Information on offsets that have been purchased or developed outside the inventory boundary, subdivided by GHG storage/removals and emissions reduction projects.
- ✓ The reporter should specify whether offsets are verified or approved by an external program (e.g., Clean Development Mechanism).

OTHER OPTIONAL INFORMATION



- ✓ You may also wish to include other optional information, such as:
- Detailed information on activity data, emission factors, and other parameters used to calculate emissions as well as how these data were collected and archived. Inventory reports, of course, must take into account that some data may be considered to represent confidential business information.
- An outline of any external quality assurance provided and a copy of any inventory verification statement, if applicable, of the reported emissions data.
- Information on the quality of the inventory and an outline of policies in place to improve inventory quality.
- A list of facilities included in the inventory.
- A contact person.

ADDITIONAL GUIDANCE



- ✓ GHG reports usually are different from corporate sustainability or social responsibility reports.
- A full public GHG report contains all the necessary data specified by the Corporate Standard.
- ✓ Companies should take care to identify and refrain from reporting any scope 2 or 3 emissions that are also reported as scope 1 emissions by other facilities, business units, or companies included in the emissions inventory consolidation.


