
Steps to Measuring and Managing GHG emissions



Methodology

- **Define Scope and Boundaries**
 - i. Identify organizational boundaries (operational and geographic scope).
 - ii. Define emission scopes: Scope 1 (direct emissions), Scope 2 (indirect emissions from energy use), and Scope 3 (other indirect emissions).

- **Set Baseline Year**
 - i. Choose a baseline year for comparison.
 - ii. Ensure the baseline year data is reliable.

- **Identify Emission Sources**
 - i. List all possible sources of GHG emissions within the defined scope.
 - ii. Categorize sources under Scope 1, Scope 2, and Scope 3 emissions.





Methodology

- **Collect Data**
 - i. Gather activity data from all identified sources (e.g., fuel consumption, electricity usage, waste generation).
 - ii. Ensure data accuracy and consistency by using reliable data collection methods.

- **Select GHG Emission Factors**
 - i. Use standardized emission factors to convert activity data to GHG emissions.
 - ii. Refer to credible sources such as IPCC or local government guidelines.

- **Calculate Emissions**
 - i. Apply the chosen emission factors to your activity data.
 - ii. Sum emissions across all sources to get total emissions for each scope.





Methodology

- **Verify data quality**
 - i. Review data for accuracy, completeness, and consistency.
 - ii. Conduct internal or external audits to ensure data reliability.

- **Report Findings**
 - i. Document the methodology, data sources, emission factors, and assumptions used.
 - ii. Present GHG emissions by scope and source category.
 - iii. Highlight year-on-year comparisons and trends.

- **Set Reduction Targets**
 - i. Based on the measured emissions, set realistic and achievable GHG reduction targets.
 - ii. Align targets with international agreements (e.g., Paris Agreement) and industry benchmarks.





Methodology

- **Implement reduction strategies**
 - i. Develop and implement strategies to reduce emissions (e.g., energy efficiency projects, renewable energy adoption).
 - ii. Monitor progress and adjust strategies as necessary.

- **Review and Update**
 - i. Regularly review and update GHG emission measurements and strategies.
 - ii. Adapt to changes in operations, technology, and regulations.

- **Communicate Results**
 - i. Share results with stakeholders through sustainability reports, company websites, and other communication channels.
 - ii. Ensure transparency and accountability in reporting.





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