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Introduction to GHG Protocol Corporate Accounting Standard

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USEPA, Washington DC, January 15, 2008

The GHG Protocol Initiative - Background

- The most widely used international accounting tool for government and business leaders to understand, quantify, and manage energy use and greenhouse gas emissions.
- Convened in 1998 by the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD)
- Multi-stakeholder development process included several hundred individuals from corporations, NGOs, and governments throughout the world.

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World Business Council for Sustainable Development

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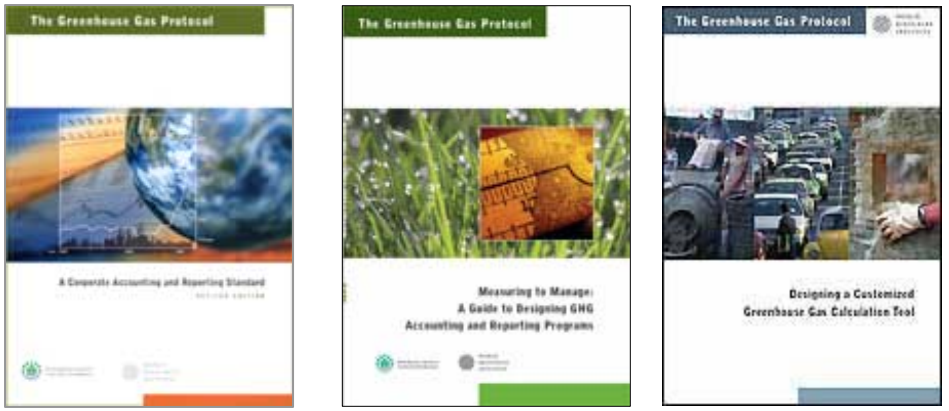
Benefits of a Common Standard

- Simplify measurement & reporting
- Harmonization across international borders & different initiatives
- Improve comparability & credibility
- Minimize the cost of developing a GHG inventory
- Establish a common foundation for GHG markets

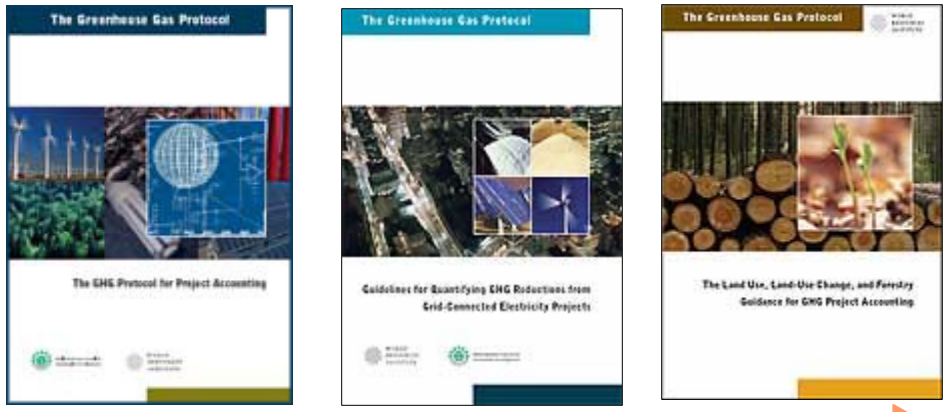
Standards, Protocol, and Tools

- A Corporate Accounting and Reporting Standard
- Project Accounting Protocol
- Measuring to Manage: A Guide to Designing GHG Accounting and Reporting Programs
- Designing a Customized GHG Calculation Tool
- Land Use, Land-Use Change and Forestry Guidance for GHG Project Accounting
- Guidelines for Quantifying GHG Reductions from Grid-Connected Electricity Projects

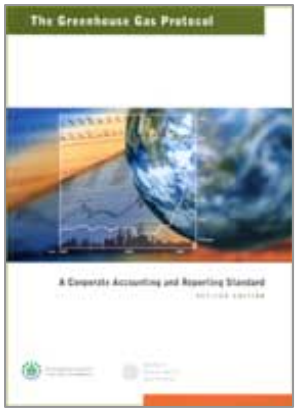
Corporate Module



Project Module



GHG Protocol Corporate Standard: Process and Timeline



GHG Protocol Corporate Standard

WRI

WBCSD

Businesses, Industry Associations, NGOs,

Global Multi – Stakeholder Process

Governments, Accountants, Inter-government entities

1998

2004

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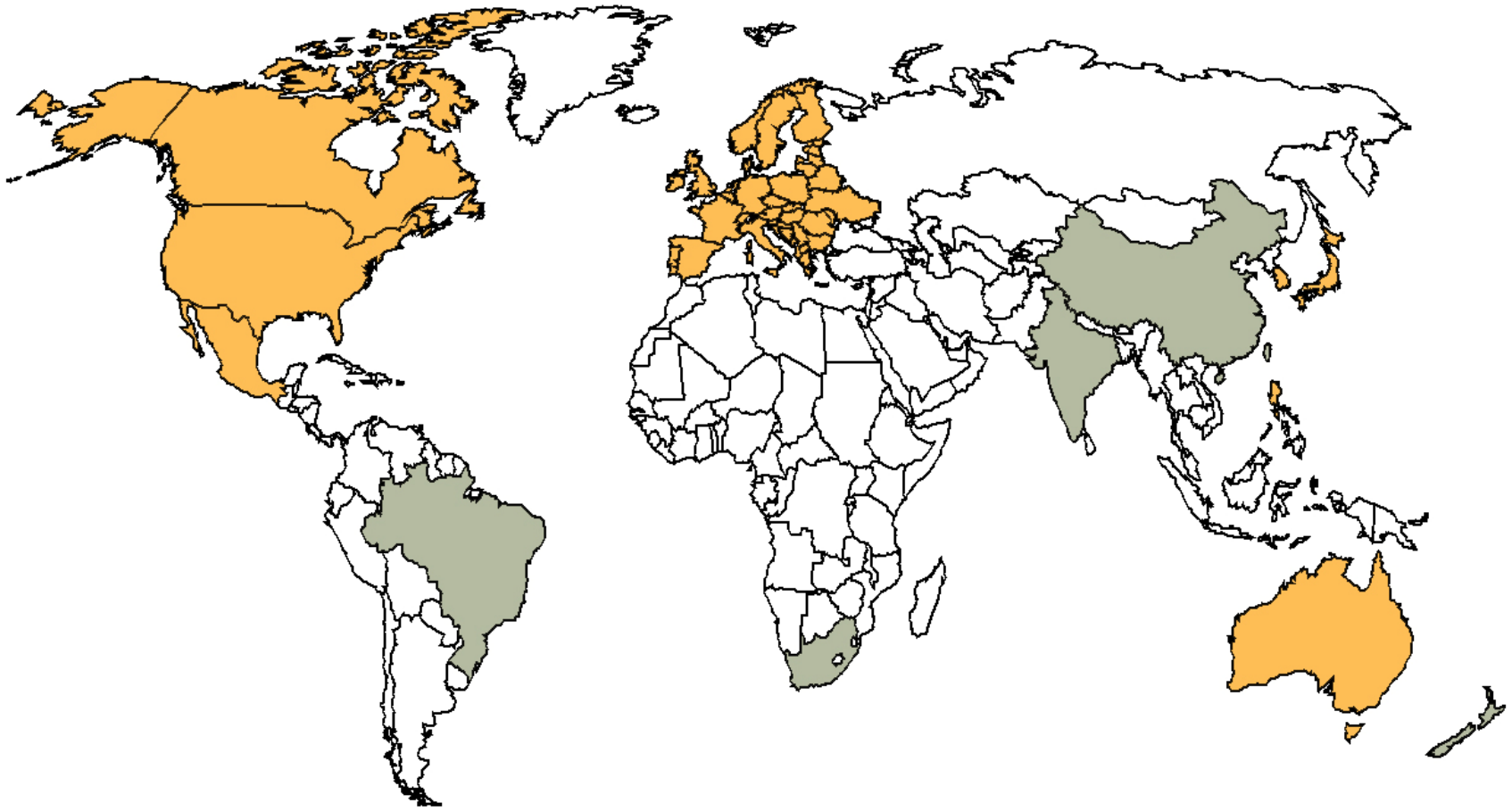
The GHG Protocol – Global Adoption



- National and Regional Initiatives and/or GHG Registries
- National GHG accounting and reporting program in progress

GHG Protocol Widely Adopted by Leading Programs and Registries

ISO International Organization for Standardization

CLIMATE LEADERS
U.S. Environmental Protection Agency

CARBON DISCLOSURE PROJECT

CALIFORNIA Climate ACTION Registry

The Climate Registry

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Wide Adoption by National and International Initiatives

Voluntary Climate Initiatives

- U.S. EPA Climate Leaders Program
- **China Energy and GHG Management Program**
- Mexico GHG Program
- Philippines Greenhouse Gas Accounting and Reporting Program
- Korea National GHG Registry
- South Africa NBI/BUSA-DEAT Initiative
- WWF Climate Savers Program

GHG Registries

- California Climate Action Registry
- US DOE 1605b Registry
- WEF Global Registry

Multilateral Non-government Initiatives

- International Standards Organization (ISO)

Industry Initiatives

- WBCSD CSI Protocol
- International Forum of Forest and Paper Associations
- International Aluminium Institute

Market Initiatives

- AP 6 Initiative Cement Sector Protocol
- Carbon Disclosure Project
- Chicago Climate Exchange
- EU Emissions Trading Scheme *(informed by GHG Protocol calculation tools)*

Used by hundreds of companies worldwide

Corporate Accounting Standard: What is in it?

Standards

- Accounting Principles
- Organizational Boundaries
- Operational Boundaries
- Historic Datum
- Reporting GHG emissions

Guidance

- Business goals and inventory design
- Accounting for GHG reductions
- Identifying GHG sources
- Managing inventory quality
- Verification of GHG emissions
- Target Setting

Calculation tools

- Web-based, user-friendly, step-by-step guidance
- Build on IPCC methodologies & industry best practice
- Cross sector, e.g. mobile and stationary combustion
- Sector specific e.g. CSI Protocol

GHG Accounting and Reporting Principles

Relevance: Ensure the GHG inventory appropriately reflects the GHG emissions of the company and serves the decision-making needs of the users – both internal and external to the companies

Completeness: Account for and report on all GHG emission sources and activities within the chosen inventory boundary. Disclose and justify any specific exclusions

Consistency: Use consistent methodologies to allow for meaningful comparisons of emissions over time. Transparently document any changes to the data, inventory boundary, methods, or any other relevant factors in the time series

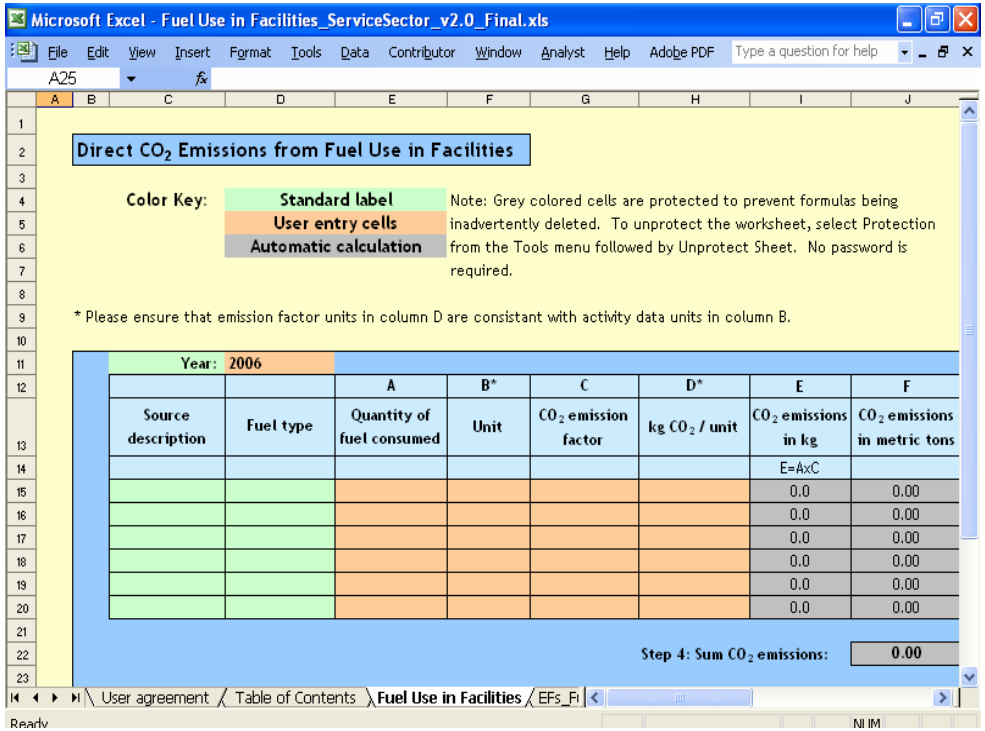
GHG Accounting and Reporting Principles Contd.

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

Accuracy: Ensure that the quantification of GHG emissions is systematically neither over not under actual emissions, as far as can be judged, 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.

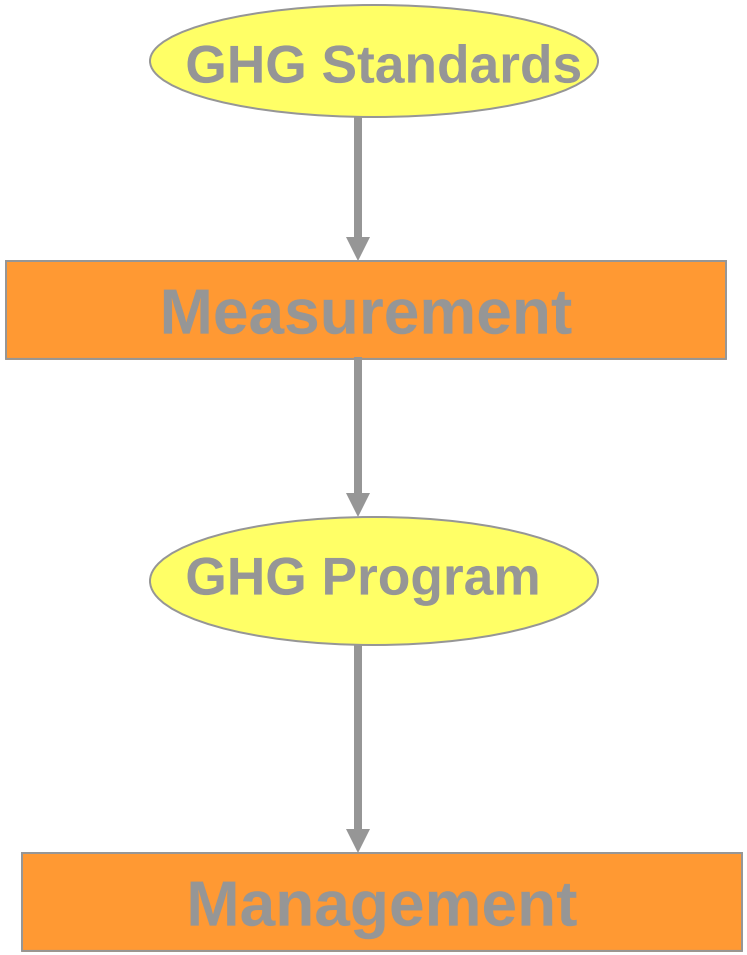
Calculation Tools and Protocols

- Five Cross sector tools: Stationary and mobile combustion, CHP purchased electricity, uncertainty
- Twelve Sector-specific tools: Pulp & paper, cement, aluminum, iron & steel, nitric acid, ammonia, lime, etc.
- Consistent with IPCC and IEA methodologies



www.ghgprotocol.org

What you measure, you can manage
What you measure WELL, you can manage WELL



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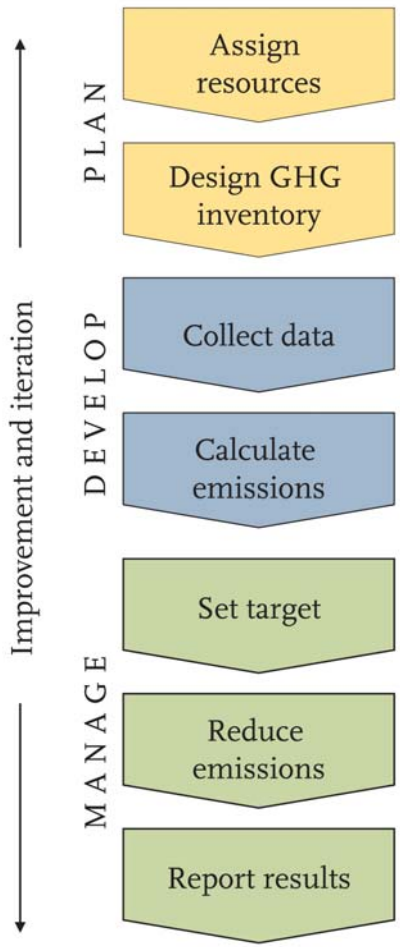
Measurement and Management Work Has Several Stages



- secure management support
- establish a team & prepare budget

- define inventory boundary
- determine sources of emissions
- select base year

- design efficient data management system
- obtain appropriate data, ensure data quality

- apply calculation tools
- guard against calculation errors

- identify emission reduction opportunities
- decide on target type & level

- implement emission reduction activities

- publicly report complete inventory information

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