The Greenhouse Gas Protocol Initiative
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CHINA

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

GHG Standards

Measurement

GHG Program

Management
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
Corporate Accounting Standard

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

www.ghgprotocol.org
GHG Protocol Concept of ‘Scope’ to Categorize Direct and Indirect Impacts
# GHG Protocol Cement Tool

## 燃料中CO2的默认排放系数

<table>
<thead>
<tr>
<th>燃料</th>
<th>CO2排放系数</th>
<th>IPCC默认值</th>
<th>相关说明</th>
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</table>
| 煤 | 0.96 | 9.5 | 豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆豆
The GHG Protocol – Global Adoption

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

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)

Multilateral Non-government Initiatives
- International Standards Organization (ISO)
THE GHG PROTOCOL IN CHINA

- Develop National GHG Standards
- Design and Implement Training and Capacity-building Programs based on the GHG Protocol
- Develop Customized GHG Calculation Tools and Software
- Establish National, Provincial, or Industrial-level GHG Registries
Goal: Develop National GHG Standards

- Partners: China Energy and GHG Management Program (a collaboration of WRI-WBCSD-CBCSD launched in June 2007)
- Customize industry-specific GHG Protocol calculation tools and methods
- Assist with recommendations on national voluntary standards
- Current Projects - Cement and Oil & Gas sectors
- Plans - Expand into the Iron & Steel, Power, and Chemicals sectors
GHG Protocol implemented in three of Sinopec’s oil and gas refineries, including the Yansan facility located outside of Beijing.
Goal: Design and Implement GHGP Training and Capacity-building Programs

- **Partners:**
  - National Development Reform Commission
  - China Business Council for Sustainable Development
  - China Building Materials Academy (CBMA)

- **Completed training of the trainers for key staff**
  - CBCSD
  - CBMA
  - Beijing Cement Company
  - Sinopec Economic Development Division
Over 50 Cement Companies Trained in January 2008
Goal: Develop Customized GHG Calculation Tools and Software

- Current Partners: Energy Research Institute (a unit of NDRC) and Beijing Shuoren (a Chinese software company)
- Key Activity: Develop energy and GHG accounting software, for use in conjunction with China’s T-1,000 program, based on GHG Protocol. This activity is funded by Energy Foundation.
- Hong Kong Environmental Protection Department is in the process of adopting the GHG Protocol for the buildings sector. The intellectual property rights agreement is under discussion.
Goal: Establish National, Provincial, and/or Industrial-level GHG Registries

Partner:
- China Standards Certification Center

Key Planned Activity:
- Prepare recommendations on a GHG registry for China based on GHG Protocol
Elements of our Approach

- Local Partner and Champion
- Working on the ground
- Planning & Execution