



World Business Council for  
Sustainable Development



WORLD  
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INSTITUTE

## WRI/WBCSD GHG Protocol Product and Supply Chain GHG Accounting & Reporting Standard *Business Plan*

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### 1. Background

The Greenhouse Gas Protocol (GHG Protocol) is the most widely used international accounting tool for government and business leaders to understand, quantify, and manage greenhouse gas emissions. The GHG Protocol, a decade-long partnership between the World Resources Institute and the World Business Council for Sustainable Development, is working with businesses, governments, and environmental groups around the world to build a new generation of credible and effective programs for tackling climate change.

As the corporate sector becomes more sophisticated in its treatment of climate change, companies are increasingly moving beyond assessing the GHG impact of their own operations and toward a more comprehensive assessment of their GHG impacts along their value chain—both in the products they buy from suppliers (upstream) and in the products they sell to customers (downstream). The need to capture information on GHG emissions beyond the corporate boundary has become especially acute in light of increased outsourcing of manufacturing and other GHG-intensive operations. A broad assessment of the full climate impact of corporate activities has great potential to enable new GHG reductions throughout corporate supply chains worldwide, including in key developing countries where suppliers manufacture for multinational customers.

### 2. Vision

The GHG Protocol will develop and promote the widespread adoption of new international standards for measuring and reporting GHG emissions across corporate and product supply chains, through a broad, international multi-stakeholder process of businesses, policymakers, and other experts and stakeholders.

### 3. Objectives

New GHG Protocol product and supply chain guidelines will:

- Serve as a key tool for companies, suppliers, and consumers to reduce GHG emissions in their supply chains and in the products they buy and sell;
- Engage new constituencies in GHG management, including suppliers in large developing economies such as China, India, and Brazil that manufacture products for multinational purchasers;
- Standardize, harmonize, and build upon emerging initiatives to assess supply chain and life cycle emissions, such as the Carbon Trust/British Standards Institute/UK Defra; ISO; the Carbon Disclosure Project; UNEP/SETAC; industry-specific initiatives; and others; and
- Inform ongoing policy discussions about the embodied greenhouse gases in traded products.

## 4. Deliverables

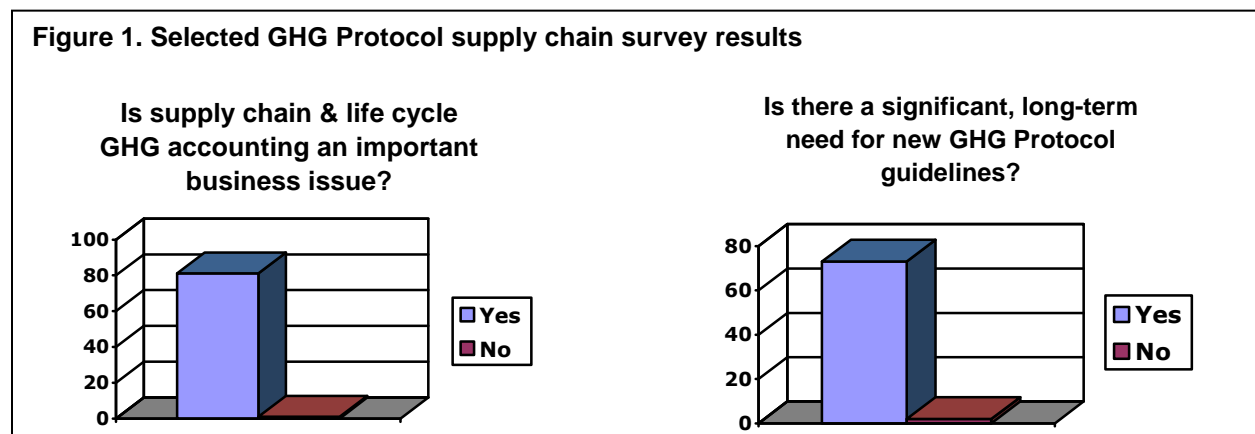
The project will deliver the following outputs:

- (1) GHG Protocol guidelines<sup>1</sup> on product life cycle GHG accounting and reporting
- (2) GHG Protocol guidelines on corporate scope 3 and supply chain accounting and reporting
- (3) A series of white papers to be released during the guideline development process, providing analysis on topics such as:
  - a. Results of the GHG Protocol Supply Chain and Life Cycle Survey
  - b. Applicability and limitations of life cycle assessment (LCA) to product and corporate GHG accounting
  - c. Applicability and limitations of supply chain management (SCM) methods to product and corporate GHG accounting
  - d. Case studies of corporate supply chain GHG accounting and management
  - e. Applications of the new GHG Protocol guidelines
  - f. Several specific accounting issues that will inform the final guidelines (see Section 9 for more information on specific topics)

## 5. Unique Opportunity and Timeliness

The GHG Protocol considered developing guidelines for products and supply chains several years ago but businesses were then not ready to engage on the issue. This has now changed, and over the past several months, supply chain sustainability and climate change concerns have become a high priority in the corporate community. Initiatives related to supply chain and product GHG management are proliferating rapidly, including Wal-Mart's supply chain initiative, the Carbon Disclosure Project's Supply Chain Leadership Collaboration; various product-labeling initiatives; and emerging guidelines on product GHG measurement, such as by the Carbon Trust, British Standards Institute, and UK Defra.

With this new sense of urgency, and a need for a common high quality standard, many companies, programs, and stakeholders have expressed interest in working with the GHG Protocol to develop new guidelines on product and supply chain GHG accounting. In response to this rapidly growing demand, the GHG Protocol distributed a survey to assess the need for new guidelines to over 300 companies, experts, and other stakeholders (see Appendix B for list of respondents to the survey). The response was overwhelmingly positive, urging the GHG Protocol to develop new guidelines in this area (see Figure 1).



<sup>1</sup> The decision to call the guidelines a “standard” or “guidance” will be made during the guideline development process.

Due to the urgent demand expressed through the survey, the GHG Protocol plans to develop the new standard under an accelerated schedule of 2 years, compared to 4-5 years for previous standards. It is critical to lay a robust accounting foundation in the short term that serves an enduring role in facilitating effective product and supply chain GHG management well into the future.

## 6. Lessons Learned from Stakeholder Consultations

Building on the survey results, WRI and WBCSD recently completed a series of consultations with a focus group that included over 20 participants representing leading standards providers, companies, programs, and academic institutions (see table below).

Focus Group Participants		
US EPA	Ecofys	Alcan
Carbon Trust	ERM	UPS
Carbon Disclosure Project	JP Morgan Chase	BP
Global Reporting Initiative	Citi	Johnson & Johnson
The Climate Conservancy	Kimberly Clark	Interface
Supply Chain Council	Lenovo	Siemens
Business for Social Responsibility	Cisco	MeadwestVaco
		Professor Bo Weidema

The purpose of these sessions was to seek advice on a set of technical and strategic questions geared towards establishing the scope, objectives, and development approach of the new guidelines.

Focus group participants confirmed the need for two components of a new standard: 1) product GHG guidelines, building on established lifecycle assessment methods, and 2) supply chain/scope 3 guidelines, building on the GHG Protocol Corporate Standard. The product guidelines will provide a standard methodology and user-friendly guidance for product-level GHG quantification, accounting, and reporting. The corporate-level guidelines will focus on setting boundaries and providing criteria for determining which scope 3 sources are relevant and significant, including additional detail on corporate supply chains, shipping/logistics, product use emissions, and other scope 3 activities.

Based on the survey and focus group consultations, specific approaches and areas where the GHG Protocol can provide unique and significant contributions are provided in the table below.

Objective	GHG Protocol Development Approach
Ensure policy-neutral guidelines	As with its previous two standards (the Corporate Standard and Project Protocol), GHG Protocol will develop a standard that is scientifically sound, policy neutral, and supports multiple business objectives. The standard will focus on accounting issues while identifying relevant policy issues that will need to be addressed by programs or policy makers.
Ensure separation between standard design and implementation	GHG Protocol will avoid a conflict of interest by not being involved in any commercial application of the standard.
Ensure an open, transparent, inclusive, and global multi-stakeholder process	As with the previous two standards, the GHG Protocol process will be an open, transparent, inclusive, multi-stakeholder process implemented globally, with participation from new and existing GHG Protocol partners and contributors worldwide.

Build on ISO 14040-44 Life Cycle Standard	Experts agree that ISO offers a widely accepted framework for product life cycle accounting. The new GHG Protocol standard will tailor the standard for GHG impacts; provide additional specifications on the types of methods and level of data quality needed to meet different objectives (with options for using simplified approaches to serve certain objectives); include sector-specific considerations; and provide simple, user-friendly guidance.
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## 7. Key Challenges

The survey and consultation process not only helped to establish the need for the new guidelines but also helped illuminate major lifecycle accounting issues that need further research and analytical work; a lack of consistency in existing initiatives and approaches; and a lack of user-friendly guidance in the resources and tools that are currently available in the market. Given this, we anticipate two major challenges in completing this work:

- **Technical challenges:** Supply chain and product GHG accounting presents many new technical challenges including applying GHG Protocol accounting principles; setting product system or functional unit boundaries; determining which sources along the supply chain are relevant; allocating emissions between various products, suppliers, and customers; accounting for product use phase emissions; analyzing and providing guidance on data collection and quality; addressing the complexity of corporate logistics and supply chains; developing a framework for transparently and accurately reporting emissions; and addressing sector-specific considerations. Over the course of the project, the GHG Protocol will work closely with experts in relevant fields (life cycle assessment, supply chain management, etc.) to address these and other technical issues.
- **Collaborative challenges:** Several initiatives on supply chain and product GHG emissions are now emerging, such as UNEP/SETAC, BSI/Carbon Trust, ISO, CDP, and industry-specific initiatives. Through establishing strategic partnerships with these and other relevant initiatives, the GHG Protocol will pursue an important role in facilitating information flow and promoting synergies between the various efforts to ensure harmonization as well as in convening a broad and inclusive process to develop the new GHG Protocol guidelines. The GHG Protocol's goal is to ensure a comprehensive, rigorous, and objective consideration of important issues and viewpoints to guide the development of new guidelines and to obtain and cultivate inputs from a wide range of competent and relevant players to ensure a robust decision-making process.

## 8. Strategy

Our vision is to develop the GHG Protocol supply chain standards through a broad, inclusive, multi-stakeholder process, based on the GHG Protocol Corporate Standard and ISO 14040-44 life cycle assessment standards, which will serve multiple business and GHG program objectives. We believe that the design and form of the GHG Protocol supply chain and product accounting framework must be driven by the objectives and functions it will serve, with a long term goal of supporting and catalyzing widespread GHG reductions across business value chains. GHG Protocol's approach to the development of new standards has four principal elements:

- I. Leverage GHG Protocol's Expertise and Trusted Brand
- II. Pursue Phased Development of the Guidelines
- III. Convene Broad Multi-Stakeholder Process
- IV. Ensure Widespread Adoption and Influence

Each of these elements is described in detail below.

**Leverage GHG Protocol’s expertise and trusted brand.** Many key players, including businesses, governments, and NGOs, have approached the GHG Protocol to provide the critical accounting foundation for product and supply chain GHG management—a role the GHG Protocol is well equipped to play, due to its unique credibility and respected brand, established over the last ten years through the development of its two previous standards. The GHG Protocol corporate accounting framework is the most widely used accounting framework for corporate GHG measurement worldwide. The GHG Protocol brings its internationally recognized expertise in GHG accounting to ensure the high quality and integrity of the new GHG Protocol standard. The project also leverages GHG Protocol’s existing partnerships with networks of businesses, as well as with GHG accounting and reporting programs in major developing countries—including China, India, and Brazil—to expand the capacity of companies to manage GHGs along their supply chain and to build the capacity of developing country institutions to support GHG measurement. Additional information on GHG Protocol’s partners in the U.S., Europe, China, India, Mexico and Brazil is provided in Appendix A.

**Pursue phased development.** Along with experts on key accounting issues, we will publish periodic white papers throughout the standard development process. Doing so will provide a mechanism for frequent stakeholder comment, which will make the standard more technically robust; create an inclusive process for stakeholder involvement; and inform companies about key issues and challenges as companies move to implement new strategies while guidelines are still under development.

**Establish a broad, inclusive multi-stakeholder process.** Building on the GHG Protocol’s successful experience in developing its previous standards, we will establish a broad, inclusive process for developing the new standard, including partnerships with key players such as ISO, UNEP/SETAC, CDP, the Carbon Trust, government agencies, universities, businesses, and others (see Appendix A for a list of GHG Protocol partners). We will seek frequent stakeholder input through expert and stakeholder consultation, stakeholder workshops in 3-4 countries, and extensive road testing of the draft standard. The GHG Protocol will engage multinationals to pilot test these guidelines with their suppliers in key countries including China, India, and Brazil.

**Ensure widespread adoption and influence.** We will ensure that the new GHG Protocol guidelines achieve wide adoption by major GHG programs and initiatives worldwide, many of which have already expressed interest in the new guidelines, as well as by countless companies worldwide, who currently rely on the GHG Protocol as a foundation of their corporate climate strategies. Wide adoption of the guidelines is expected to result from: the inclusive multi-stakeholder standard development process; extensive road-testing of the draft standard; the existing credibility and brand recognition of the GHG Protocol; and GHG Protocol’s prior experience in successfully promoting standards, as evidenced by its adoption by many government programs, international standards, GHG disclosure initiatives, and hundreds of companies worldwide.

## 9. Main Activities

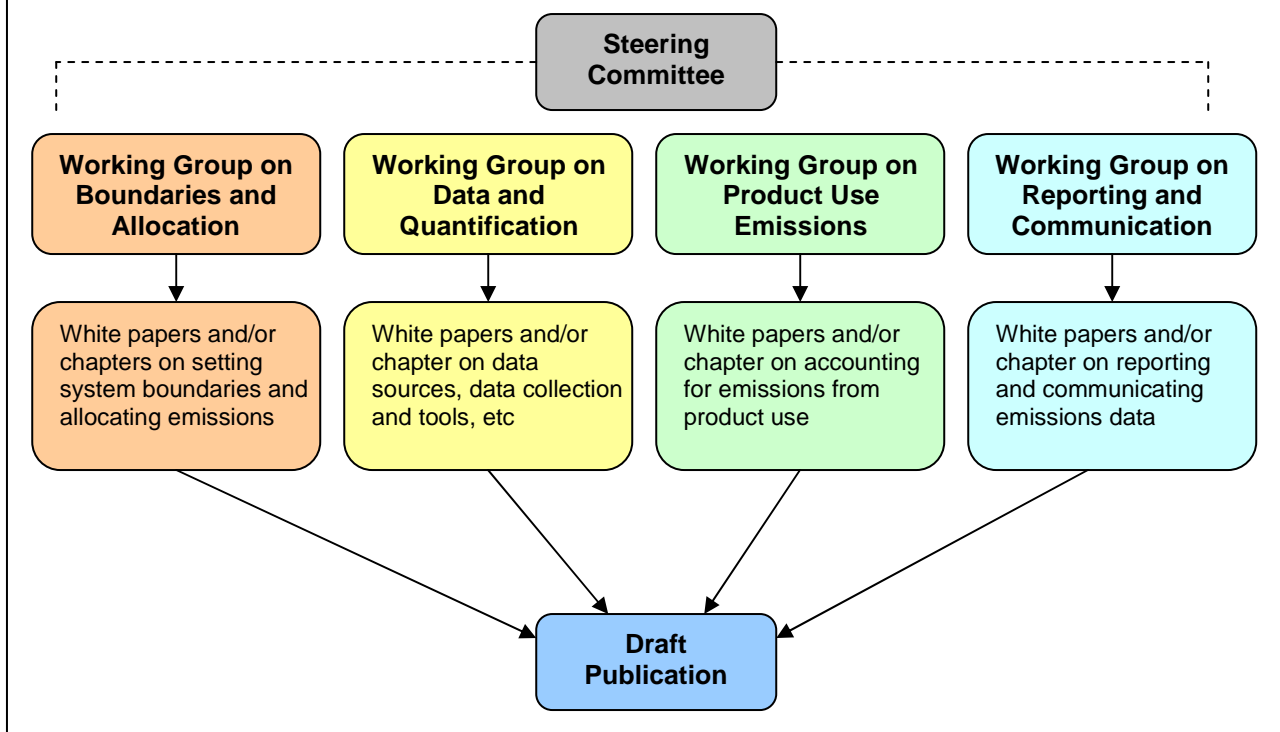
To implement this strategy, GHG Protocol will complete the following activities over two years.

Year 1 (June 2008 – May 2009)
1. Define and secure consensus on the goals and scope of the new product and supply chain GHG accounting guidelines, including through focus group consultations and public review process
2. Hold 3-4 stakeholder workshops (in the U.S., Europe, and China) for discussion of the standard development process, the goals and scope of the new standard, and specific accounting and implementation issues; and presentation of stakeholder case studies in supply chain/product GHG accounting and management

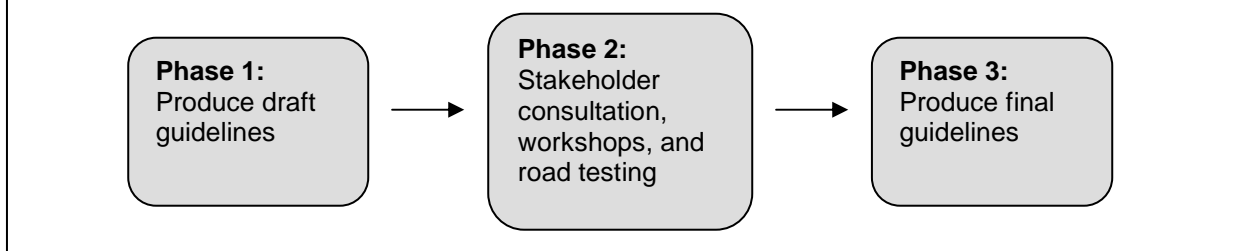
<p><b>3.</b> Convene a multi-stakeholder global steering committee to guide and build consensus on the development and implementation of international guidelines for product/supply chain GHG accounting</p>
<p><b>4.</b> Convene technical working groups to lead the development of guidelines on specific accounting issues. In convening these working groups, WRI and WBCSD will:</p> <ul style="list-style-type: none"> <li>• Establish criteria, qualifications, and terms of reference for participation</li> <li>• Appoint working group leaders and facilitators</li> <li>• Prepare work plan and expected outputs of working groups</li> </ul>
<p><b>5.</b> Through working groups, draft a series of white papers and chapters, addressing such issues as:</p> <ol style="list-style-type: none"> <li>a. Standardizing concepts and terms,</li> <li>b. Defining accounting principles,</li> <li>c. Defining accounting boundaries,</li> <li>d. Criteria for determining relevance of scope 3 sources,</li> <li>e. Methods for allocation of emissions,</li> <li>f. Data sources, data collection and confidentiality,</li> <li>g. Emissions quantification and emission factors, including data quality tiers</li> <li>h. Accounting for emissions from outsourced and contracted activities,</li> <li>i. Accounting for emissions from shipping and logistics,</li> <li>j. Accounting for emissions from product use and disposal,</li> <li>k. Methods and tools for business-to-business data exchange,</li> <li>l. Reporting and communication to stakeholders,</li> <li>m. Sector-specific accounting issues, and</li> <li>n. Sector case studies in supply chain and product GHG accounting.</li> </ol>
<p><b>Year 2 (June 2009 – May 2010)</b></p>
<p><b>6.</b> Complete the white papers series, addressing the issues listed in (5)</p>
<p><b>7.</b> Synthesize working group inputs into draft guidelines</p>
<p><b>8.</b> Convene stakeholder workshops in 3-4 countries</p>
<p><b>9.</b> Implement road testing programs of draft guidelines in the U.S., Europe, China, India, and Brazil through GHG Protocol’s regional partners and other local industry associations (see Appendix A)</p>
<p><b>10.</b> Conduct road testing workshops in 3-4 countries to develop recommendations for changes and improvements in the guidelines</p>
<p><b>11.</b> Incorporate feedback from road testing and finalize guidelines</p>

**Figure 2. Guideline development process (Steps 3-7)**

**[Note: This is an example; working group organization and topics are TBD]**



**Figure 3. Building consensus (Steps 8-11)**



## 10. Stakeholder participation

The GHG Protocol is a multi-stakeholder, consensus-based process that depends on the active participation of stakeholders to ensure the success and broad adoption of its standards. Stakeholders are encouraged to participate in the development process in several ways:

1. Participate in a technical working group
2. Participate in the stakeholder advisory group
3. Road test draft guidelines
4. Contribute funding support

A form will be distributed for stakeholders to indicate their interest in participation (see attached stakeholder participation document). Companies and other stakeholders are encouraged to apply

for any and all categories of interest. While the technical working groups require active participation, members of the stakeholder advisory group will provide only periodic feedback on draft elements of the guidelines. See Appendix A for a list of GHG Protocol partners.

## 11. Contact

For more information, please contact:

**David Rich**  
GHG Protocol  
World Resources Institute  
Tel: +1 (202) 729-7744  
[drich@wri.org](mailto:drich@wri.org)

**Pankaj Bhatia**  
Director, GHG Protocol  
World Resources Institute  
Tel: +1 (202) 729-7629  
[pankaj@wri.org](mailto:pankaj@wri.org)

**Antonia Gawel**  
GHG Protocol  
WBCSD  
Tel: +41 22 839 31 10  
[gawel@wbcsd.org](mailto:gawel@wbcsd.org)



## Appendix A: Leveraging GHG Protocol's Partnerships

The new work on product and supply chain guidelines will leverage GHG Protocol's existing engagement with networks of international businesses, as well as its partnerships with GHG accounting and reporting programs in major developing countries, to design new guidelines and expand the capacity of companies to manage GHGs along their value chain.

Below is a list of current and prospective partners in each country to develop and implement the new guidelines in the U.S., Europe, China, India, Mexico and Brazil.

### United States

- WRI's corporate partners, including US Climate Business Groups
- WBCSD Corporate Members
- US Climate Action Partnership (USCAP)
- US EPA Climate Leaders
- The Climate Registry

### Europe

- WBCSD Corporate Members
- The Carbon Trust
- The Carbon Disclosure Project
- European Commission
- Respect/BLICC

### India

- Confederation of Indian Industries (CII)
- The Energy and Resources Institute (TERI)
- Bureau of Energy Efficiency (BEE)

### China

- CBCSD - China Business Council for Sustainable Development
- CBMA - China Building Materials Academy
- ERI - Energy Research Institute
- Tsinghua University
- NDRC - National Development and Reform Commission
- CSCC - China Standard Certification Center
- Sinopec
- Beijing Shuoren Hitech Energy Co., Ltd.
- Energy Foundation
- BP Foundation
- Alcoa Foundation
- Asia Pacific Partnership - Cement Task Force

### Mexico

- SEMARNAT
- CESPEDES
- CONCAMIN - Confederation of Industrial Chambers of the United Mexican States
- INE - Institute of Ecology
- RETC - Pollutant Transport and Emission Registry

### Brazil

- Conselho Empresarial Brasileiro para o Desenvolvimento Sustentable (Brazilian Business Council for Sustainable Development)
- Fundação Getúlio Vargas
- Ministry of the Environment

## Appendix B: Respondents to GHG Protocol Supply Chain/Life Cycle Survey

1. ACE-INA
2. AgRefresh
3. Alcan
4. Alcoa
5. AMD
6. American Water
7. Anheuser-Busch
8. API Hong Kong
9. Balance Carbon
10. BG
11. BP
12. BWBR Architects
13. Carbon Trust
14. Caterpillar
15. China Association of Small and Medium Sized Enterprises
16. Cisco
17. Citi
18. The Climate Conservancy
19. The Climate Group
20. Climate Mitigation Services
21. CLP
22. Canadian Standards Association
23. Dell
24. Dow
25. DuPont
26. E2MC
27. Earth Color
28. Ecofys
29. EDF
30. Energetics
31. Environmental Resources Trust
32. EPA SmartWay
33. ERM
34. E-Source
35. Fedex Kinko's
36. FPL
37. Gap
38. General Electric
39. General Motors
40. Georgia Pacific
41. Go Neutral Now Consulting
42. Google
43. Green Logistics Consultants Group
44. Haworth
45. HP
46. IBM
47. IECA
48. Increment
49. Interface
50. Johnson and Johnson
51. Kansai Electric Power Co.
52. Kimberly Clark
53. Kodak
54. Lend Lease Corporation
55. Lenovo
56. Lienne
57. Mohawk Paper
58. NCASI
59. New Zealand LandCare Research
60. Northeast Utilities
61. Novozymes
62. Natural Resources Defense Council
63. Office Depot
64. Owens Corning
65. Petro Canada
66. Quad Graphics
67. Rick Love
68. SEMARNAT (Mexico)
69. Shell
70. Smith Group
71. Spanish Business Council for Sustainable Development
72. Staples
73. Steelcase
74. Suncor
75. SustainAbility
76. Tengelmann
77. Tetra Tech
78. Trihydro
79. Unilever
80. Victoria Australia EPA
81. Volkswagen
82. Winemakers' Federation of Australia
83. Xerox