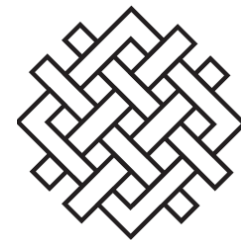


New Greenhouse Gas Protocol Standards Product & Supply Chain Accounting & Reporting

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Presentation Outline

1. Overview of GHG Protocol
2. New GHG Protocol Product & Supply Chain Standards
3. Key Accounting Issues and Challenges
4. Process, Timeline and How to Participate

Greenhouse Gas Protocol Initiative

- Convened in 1998 by WRI and WBCSD
- The most widely used international accounting tool for government and business leaders to understand, quantify, and manage greenhouse gases



The screenshot shows the homepage of the Greenhouse Gas Protocol Initiative. At the top, there is a logo with a globe and a bar chart, followed by the text "The Greenhouse Gas Protocol Initiative" and the tagline "The foundation for green and sustainable climate strategies". Below this is a navigation menu with tabs for "About", "Programs and Registries", "Standards", "Calculation Tools", "Newsletter", and "Media". A search bar is located in the top right corner.

The main content area features a large introductory paragraph: "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."

Below this, there are two more paragraphs: "It provides the accounting framework for nearly every GHG standard and program in the world - from the International Standards Organization to The Climate Registry - as well as hundreds of GHG inventories prepared by individual companies." and "The GHG Protocol also offers developing countries an internationally accepted management tool to help their businesses to compete in the global marketplace and their governments to make informed decisions about climate change."

On the right side, there is a "WHAT'S NEW" section with a photo of two men holding a certificate, titled "Chinese cement companies accounting for CO2 emissions" with a "Read More" link. Below that is a sign-up form for a quarterly newsletter with an "e-mail address" field and a "GO" button.

The "FEATURED CONTENT" section includes two items: "ACCOUNTING MODULES" with a link to "Click here for the GHG Protocol Initiative's two flagship publications, 'A Corporate Accounting and Reporting Standard' (2004) and 'The GHG Protocol for Project Accounting' (2005). These two" and "REVISED, UPDATED CALCULATION TOOLS NOW AVAILABLE" with a link to "The GHG Protocol has updated its suite of calculation tools with the most recent emission factors and calculation methodologies, according to the latest technical guidance".

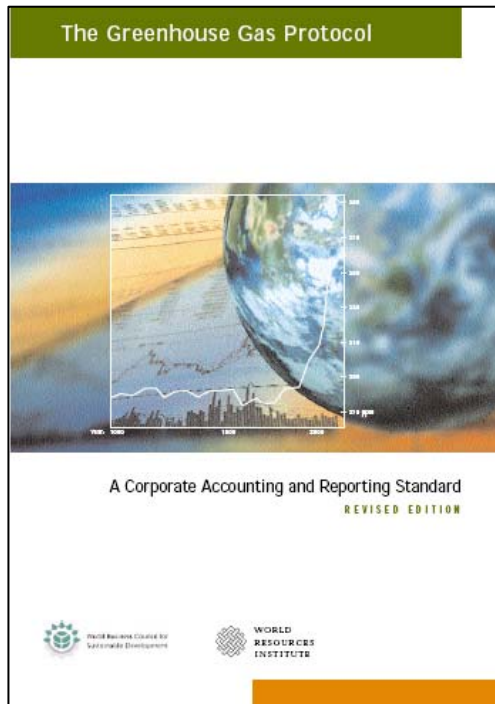
Logos for the World Business Council for Sustainable Development and the World Resources Institute are visible at the bottom right, along with an "ACKNOWLEDGEMENTS" button.

GHGProtocol.org

Selected Users of GHG Protocol



GHG Protocol Accounting Standards



**Product
Life Cycle
Accounting &
Reporting
Standard**

**Corporate
Value Chain
Accounting &
Reporting
Guidelines**

Two Related Standards

1. Product Life Cycle GHG Accounting & Reporting
 - ⇒ Quantify and report product-level emissions
 - ⇒ Build on existing life cycle assessment standards
2. Corporate Value Chain Accounting & Reporting
 - ⇒ Quantify and report major GHG emitting activities in the value chain at the company/organization level
 - ⇒ Build on GHG Protocol Corporate Standard

Drivers for New Guidelines

- Corporate GHG management moving beyond companies' own operations, toward full value chain
- Increasing focus on GHG emissions associated with goods and services
- Push for supply chain GHG disclosure and risk management
- Increasing public reporting of scope 3 emissions and product-level GHG emissions
- Increase in B2B requests for product-level information
- Need to harmonize and standardize existing and emerging approaches

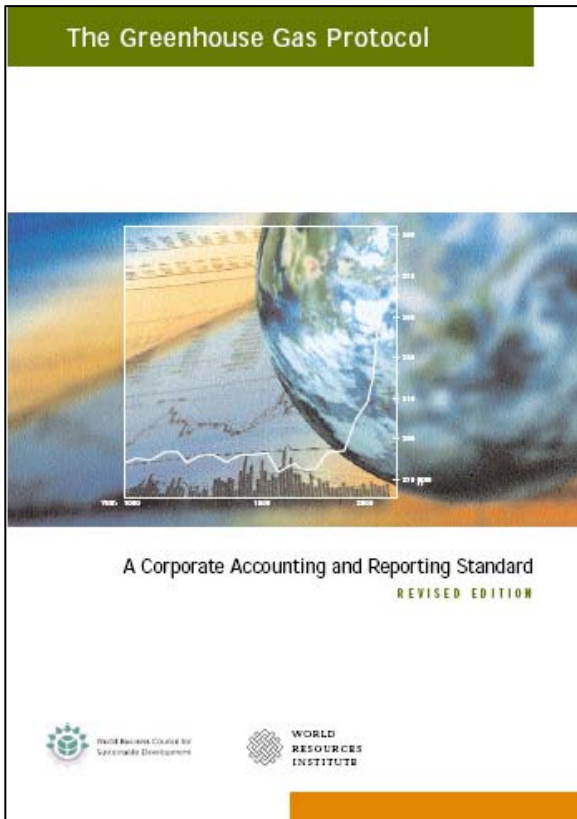
Selected Emerging Initiatives

- Company-specific
 - Wal-Mart's supply chain sustainability initiative; Tesco's product carbon labeling initiative; many others
- Sector-specific
 - Electronics industry; Beverage industry; Dairy industry; Utility industry; etc.
- Cross-sector
 - Carbon Disclosure Project's supply chain project
- Methodologies
 - Carbon Trust/Defra product life cycle methodology (PAS 2050)

Business Uses of New Standards

- Identify and prioritize GHG hot spots and reduction opportunities in the value chain—at the product and entity levels
- Establish baselines, set reduction targets and track performance—at the product and entity levels
- Inform product/material purchasing and supplier selection
- Enable credible disclosure and reporting—at the product and entity levels

Accounting for Corporate Emissions



- **Scope 1** emissions = All direct emissions, i.e. owned or controlled by your company
- **Scope 2** emissions = Indirect emissions from use of electricity, steam, heating and cooling
- **Scope 3** emissions = All other indirect emissions upstream & downstream of a company, e.g. suppliers' emissions; logistics/transport (not owned/controlled); use and disposal of a company's products; etc.

Emissions Across a Value Chain

Upstream (Suppliers)

Extraction of purchased materials
Production of purchased materials
Transport of purchased materials
Waste from purchased materials

Electricity
Generation

Company's Own Operations

Downstream (Customers)

Transport of sold products
Use of sold products
Disposal of sold products

Scope 1

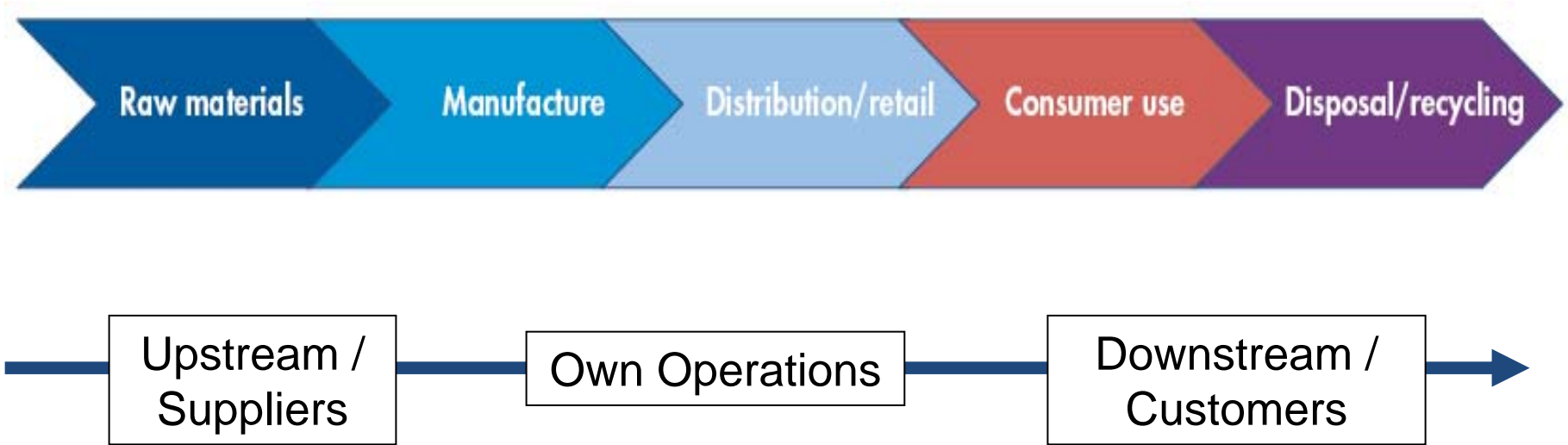
Scope 2

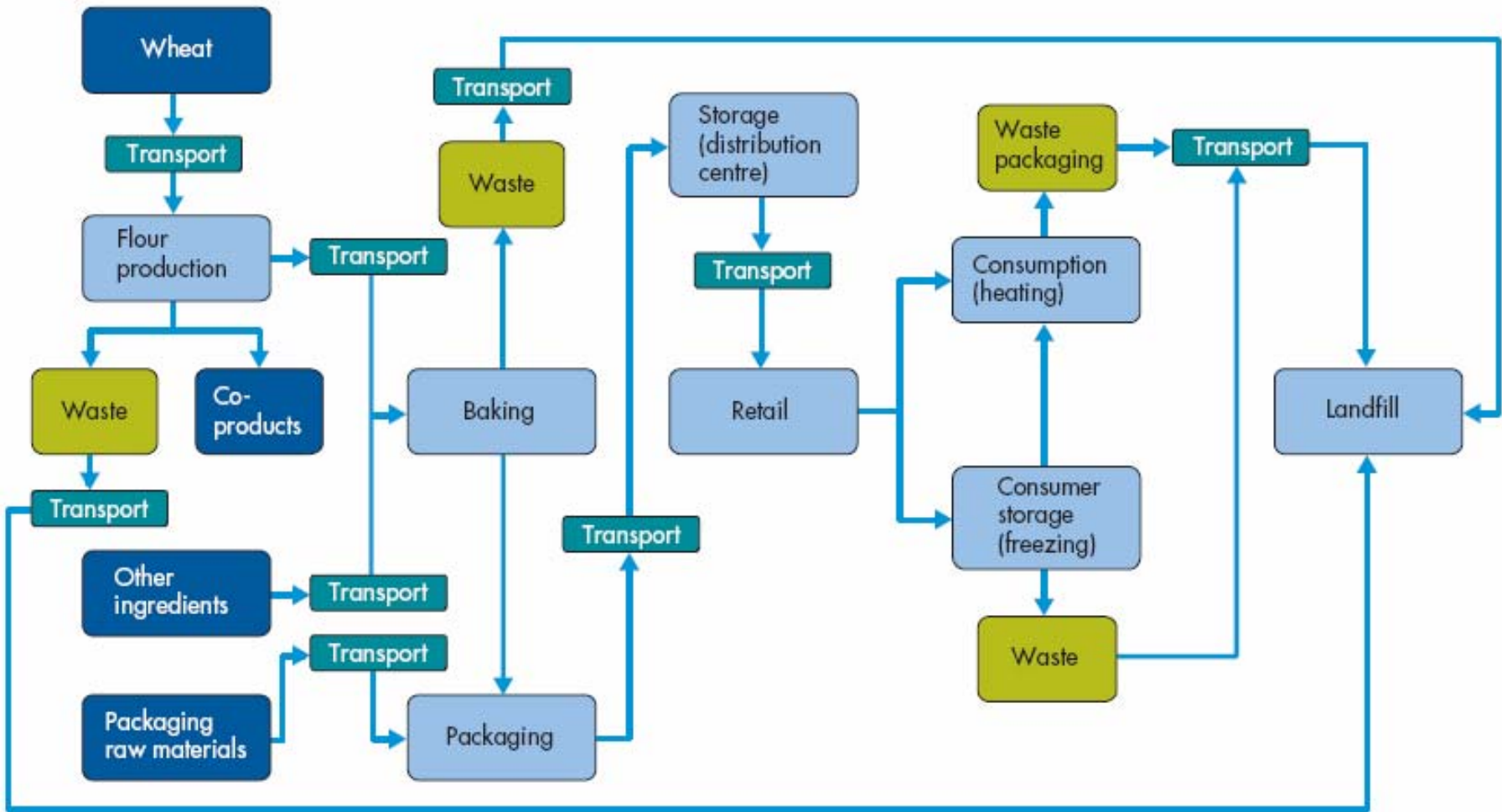
Scope 3

Accounting for Product Emissions



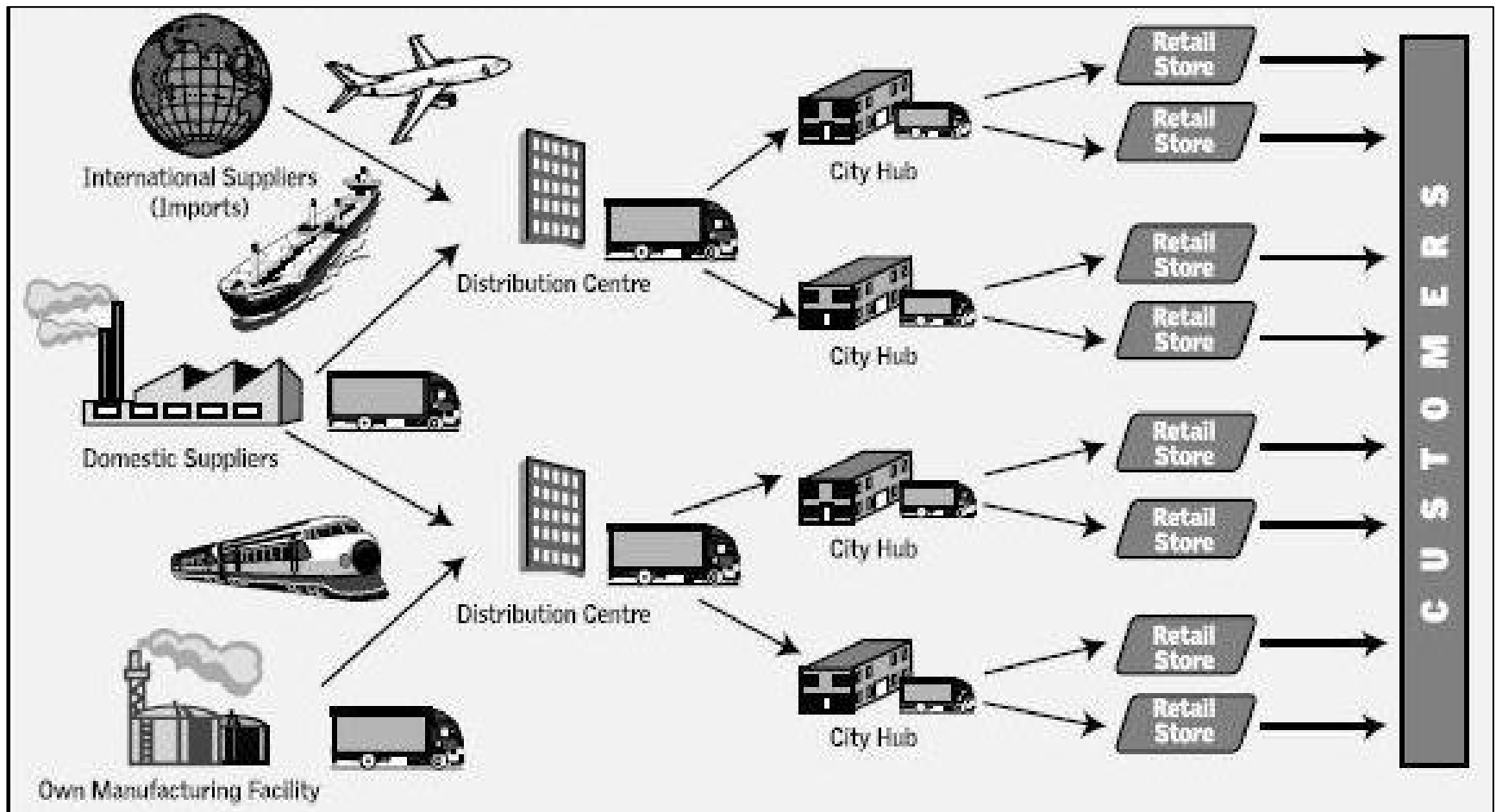
Accounting for Product Emissions





Source: Carbon Trust, PAS 2050

Accounting for Transportation Emissions



Key Issues and Challenges

- What do you include / exclude in your inventory?
- How far back in the supply chain should you collect actual data from companies (versus generic data)?
- How do you allocate emissions between multiple suppliers, products, and customers?
- How do you account for downstream emissions (e.g., product transport, product use, disposal)?
- What level of accuracy is needed? Average data by transport mode? Specific data by specific route?

Key Issues and Challenges

- Practical Challenges
 - Collecting GHG data from suppliers worldwide
 - Collecting GHG data by product type
 - Exchanging data between suppliers and customers; addressing confidentiality concerns
 - Ensuring consistent data reporting and verification along the supply chain; ensuring data quality

Example: Allocating Emissions

How do you allocate emissions between multiple suppliers, products, and customers?

- Number of units?
- Economic value?
- Mass?
- Volume?
- Energy?



Example: Allocating Emissions

Allocation Method	Company's Share	Total Vessel Emissions	Allocated Emissions
Volume	5%	100 t	$5\% * 100 \text{ t} = 5 \text{ t CO}_2$
Mass	20%	100 t	$20\% * 100 \text{ t} = 20 \text{ t CO}_2$
Economic Value	50%	100 t	$50\% * 100 \text{ t} = 50 \text{ t CO}_2$

- Emissions total depends on allocation method
- Choice can result in significant differences
- Use of a consistent method will account for 100% of emissions

Standard Development Process

- Broad multi-stakeholder process
 - Business, government, NGOs, academia
 - 500+ stakeholders so far, from many countries and sectors
- First meeting: September 10 in Washington DC
 - Steering Committee: US EPA, EU, UNEP, Wal-Mart, GE, NRDC, Carbon Disclosure Project, Carbon Trust, ISO, etc.
- Second meeting: September 23-24 in London
 - Technical Working Groups: 100+ people

GHG Protocol Timeline

1. Planning and convening (2008)
2. Working groups begin drafting (Dec 2008)
3. Complete draft guidelines (2009)
4. Pilot testing (2009)
5. Complete final guidelines (2010)

Options for Participation

- Options
 1. Participate in stakeholder advisory group
 2. Pilot test draft guidelines

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