



**Transport Day**  
2013 • Warsaw

# Overview of WRI GHG Protocol Mitigation Accounting Standards

Bridging the gap

Pathways for Transport in the Post 2012 Process



WORLD



Partnership on Sustainable  
Low Carbon Transport

## The Greenhouse Gas Protocol

- The GHG Protocol was launched in 1998 by



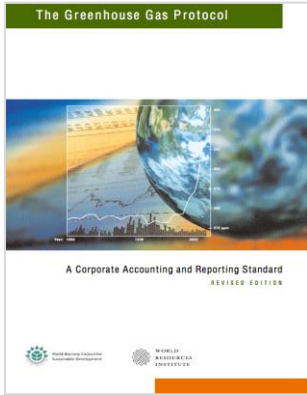
WORLD  
RESOURCES  
INSTITUTE



World Business Council for  
Sustainable Development

- Develop international GHG accounting standards
- Multi-stakeholder partnership of businesses, NGOs, governments and others
- Mission: Enable corporate and government measurement and management practices that lead to a low carbon economy

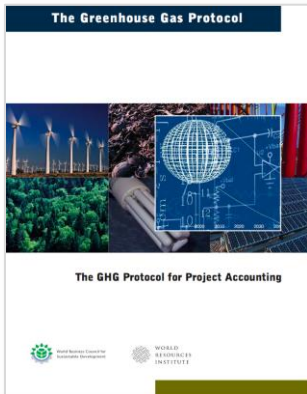
# GHG Protocol standards to date



Corporate Standard



Product Standard



Project Protocol



Corporate Value Chain  
(Scope 3) Standard

## Background on NAMA quantification

- NAMAs have been framed in terms of projects, policies, goals
- Project methodologies exist to quantify GHG reductions from project-based NAMAs (e.g., CDM)
- No international guidelines exist for quantifying GHG reductions from policy-based NAMAs or goal-based NAMAs
- New standards designed to fill the gap

## Two GHG Protocol standards under development

### Policy and Action Standard

- How to estimate GHG effects from specific policies and actions (e.g. NAMAs)
- Examples: vehicle fuel efficiency standards, feed-in tariffs, energy efficiency incentives, emission trading programs, waste management programs, etc.

### Mitigation Goals Standard

- How to assess and report progress toward national, subnational, and sectoral GHG reduction goals
- Examples: absolute reduction from base year, intensity-based goals, deviations from baseline scenarios, carbon neutrality, etc.

## Types of policies and actions\*

- Regulations and standards
- Taxes and charges
- Subsidies and incentives
- Tradable permits
- Voluntary agreements
- Information instruments
- R&D policies
- Public procurement policies
- Infrastructure programs
- Implementation of new technologies, processes, or practices
- Financing and investment

## Purpose of *Policies and Actions Standard*

- Provide standardized approaches and guidance on how to quantify GHG effects of policies and actions
- Guide users in answering the following questions:
  - Before implementation: What effect is a given policy or action likely to have on GHG emissions?
  - During implementation: How to track progress of a policy or action?
  - After implementation: What effect has a given policy or action had on GHG emissions?
- The focus is on attributing changes in GHG emissions to specific policies and actions, rather than other factors that affect emissions

## Objectives of quantifying GHG effects of policies/actions

- Inform mitigation strategies based on expected GHG effects of policies/actions (ex-ante)
- Track effectiveness and performance of policies/actions (ex-post)
- Report on GHG effects of policies/actions
- Facilitate financial support for mitigation actions (e.g., NAMAs) based on quantification of GHG reductions



## Tiered approach

Users can choose from range of methods based on objectives/resources

Tier	Level of accuracy/ completeness	GHG assessment boundary	Quantification method	Data sources
1	Lowest	Less complete	Less accurate methods (e.g., simplified approaches)	Less accurate data (e.g., global average data, estimated data)
2	Intermediate	Intermediate completeness	Intermediate accuracy	Mix of data sources and quality (e.g., country-specific data)
3	Highest	Most complete	Most accurate methods (e.g., complex approaches)	Most accurate data (e.g., source-specific data)

## Mapping the causal chain

- Key step: identifying potential effects of the policy or action
- Types of effects
  - Intended effects and unintended effects
  - In-jurisdiction effects and out-of-jurisdiction effects
  - Short-term effects and long-term effects
  - GHG-increasing effects and GHG-decreasing effects

## Example- Types of effects

- Example: U.S. vehicle fuel efficiency standards
- Intended effects
  - CO<sub>2</sub>/km ↓ so emissions ↓
- Unintended effects (e.g., rebound effects)
  - \$/km driven ↓ so km driven ↑ so emissions ↑
- In-boundary effects
  - Emissions in the U.S. ↓
- Out-of-boundary effects (e.g., leakage and spillover effects)
  - Emissions in Canada ↓
- Short-term effects
  - Cars more efficient, but using same technology
- Long-term effects
  - New vehicle technologies developed

## Define the GHG assessment boundary

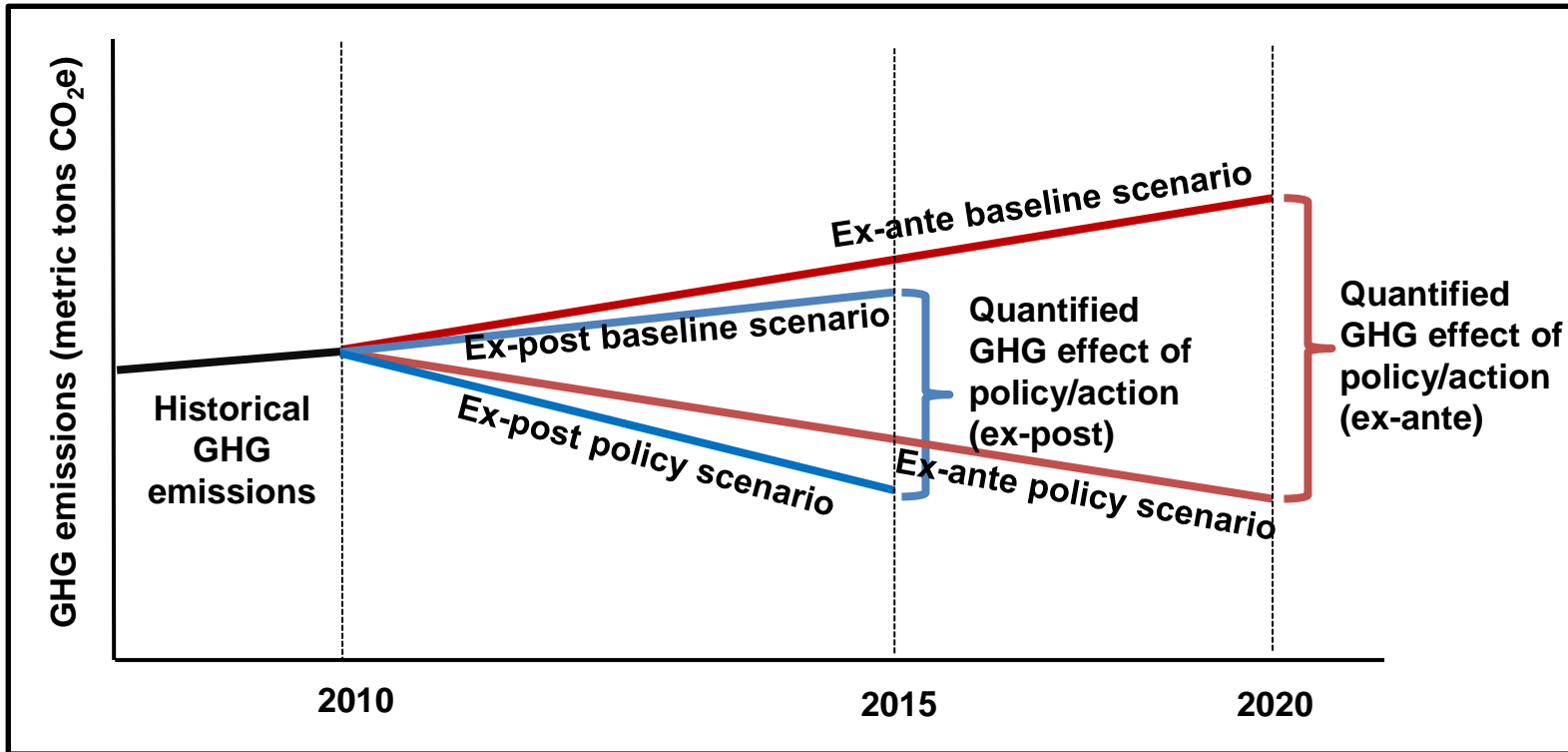
- Which GHG effects to include in the boundary?
  - Users shall include all significant effects in the boundary, consistent with the chosen tier
- Temporal boundary
  - Policy implementation period
  - Policy monitoring period
  - GHG assessment period

Example	Years							
	2005 – 2009	2010 - 2014	2015 - 2019	2020 - 2024	2025 - 2029	2030 - 2034	2035 - 2039	2040 - 2045
Policy implementation period								
Policy monitoring period								
GHG assessment period								

## Quantify GHG effects of the policy or action

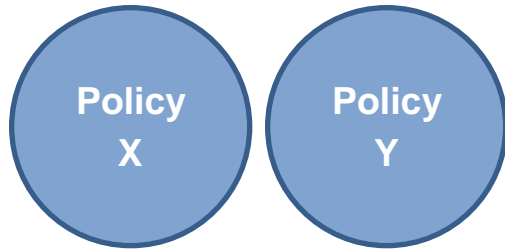
- Define the baseline scenario
  - For each effect, define baseline emissions based on underlying drivers
    - policy drivers
    - non-policy drivers
- Define the policy scenario (ex-ante or ex-post)
  - Define emissions in the policy scenario based on what is expected to change as a result of the policy

## Ex-ante and ex-post assessment



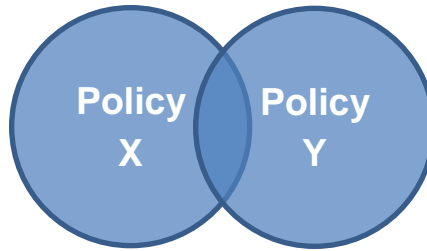
## Policy interactions

Independent



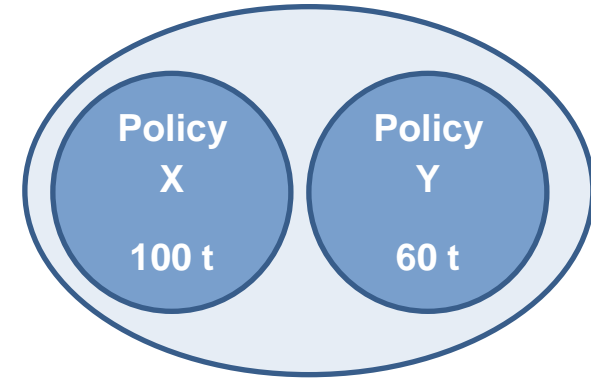
Combined effect =  $X + Y$

Overlapping



Combined effect  $< X + Y$

Reinforcing



Combined effect  $> X + Y$



Transport Day  
2013 • Warsaw

Thank you

[www.ghgprotocol.org/mitigation-accounting](http://www.ghgprotocol.org/mitigation-accounting)



FIA Foundation  
for the Automobile and Society



WORLD RESOURCES INSTITUTE