Assessing GHG impacts of NAMAs: Overview of WRI GHG Protocol Policy and Action Standard

Jared Finnegan

World Resources Institute

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The Greenhouse Gas Protocol

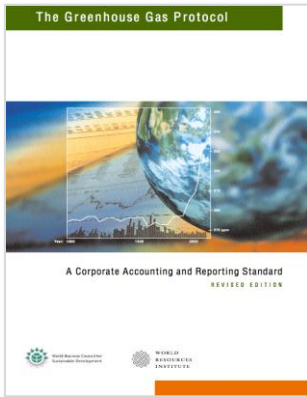- The GHG Protocol was launched in 1998 by

- 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

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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 or subnational GHG reduction goals
- Examples: absolute goals, intensity-based goals, deviations from baseline scenarios, carbon neutrality, etc.

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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

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Purpose of *Policy and Action Standard*

- Guide users in answering the following questions:

  – <u>Before implementation</u>: What effect is a given policy or action likely to have on GHG emissions?

  – <u>During implementation</u>: How to track progress of a policy or action?

  – <u>After implementation</u>: 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
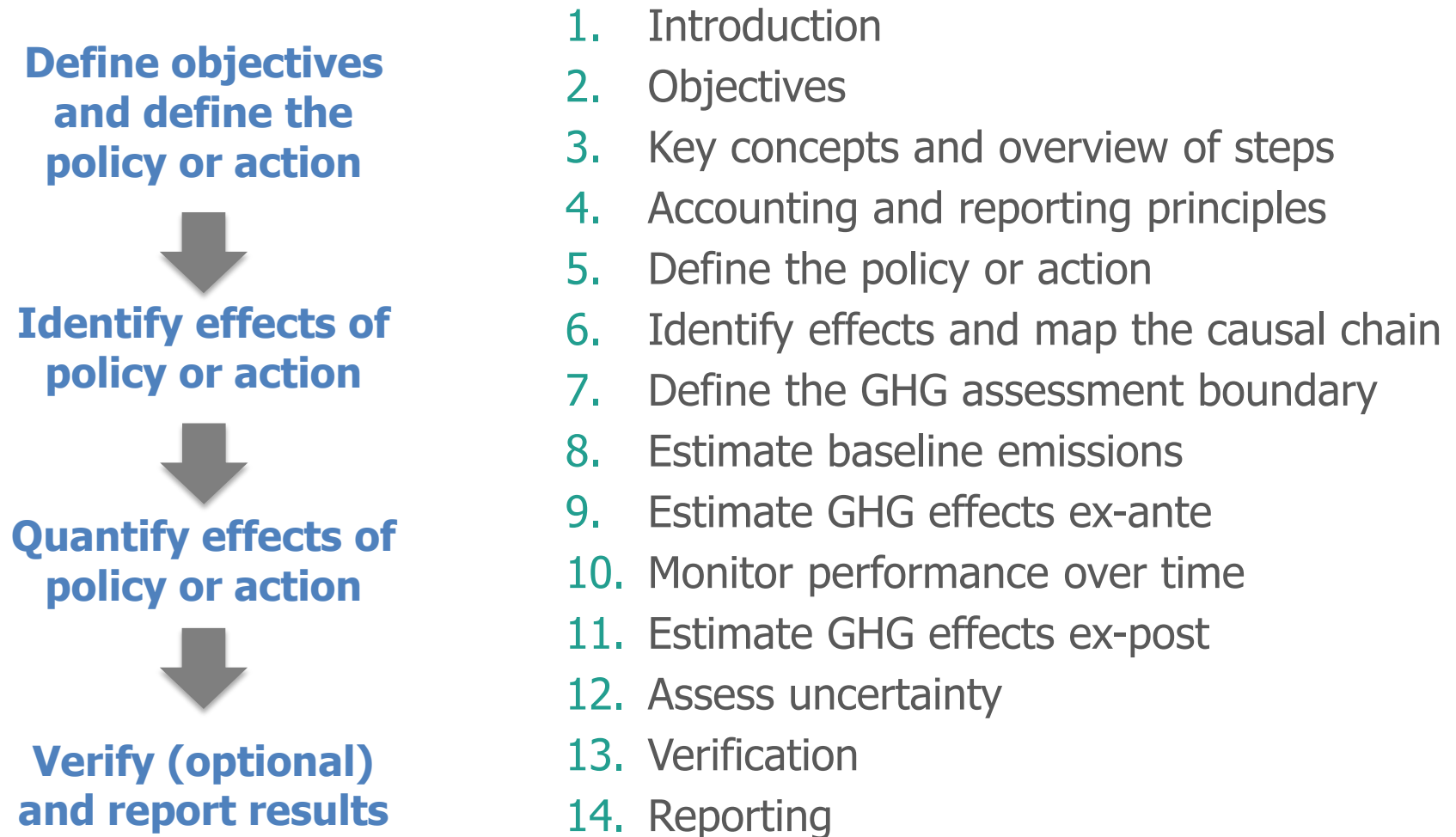
Objectives/benefits of quantifying GHG effects of NAMAs

- Inform NAMA selection and design based on comparison of mitigation potential (ex-ante)

- Ensure NAMAs are effective in achieving intended results (ex-post)

- Ensure NAMAs are cost-effective and limited resources are invested efficiently (e.g., GHG reduced per dollar)

- Attract and facilitate financial support for NAMAs based on assessment of mitigation potential or GHG reductions achieved

- Assess the contribution of NAMAs toward GHG reduction goals

- Enable more consistent and transparent reporting on the GHG effect of NAMAs

Types of policies and actions

- Regulations and standards
- Taxes and charges
- Subsides 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

Overview of steps and table of contents

Define objectives and define the policy or action

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Identify effects of policy or action

↓

Quantify effects of policy or action

↓

Verify (optional) and report results

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)

Identifying effects and mapping the causal chain

- Before quantifying the effects of the action, users need to identify what the effects are
- Users should consider all types of effects, e.g.:
  - 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
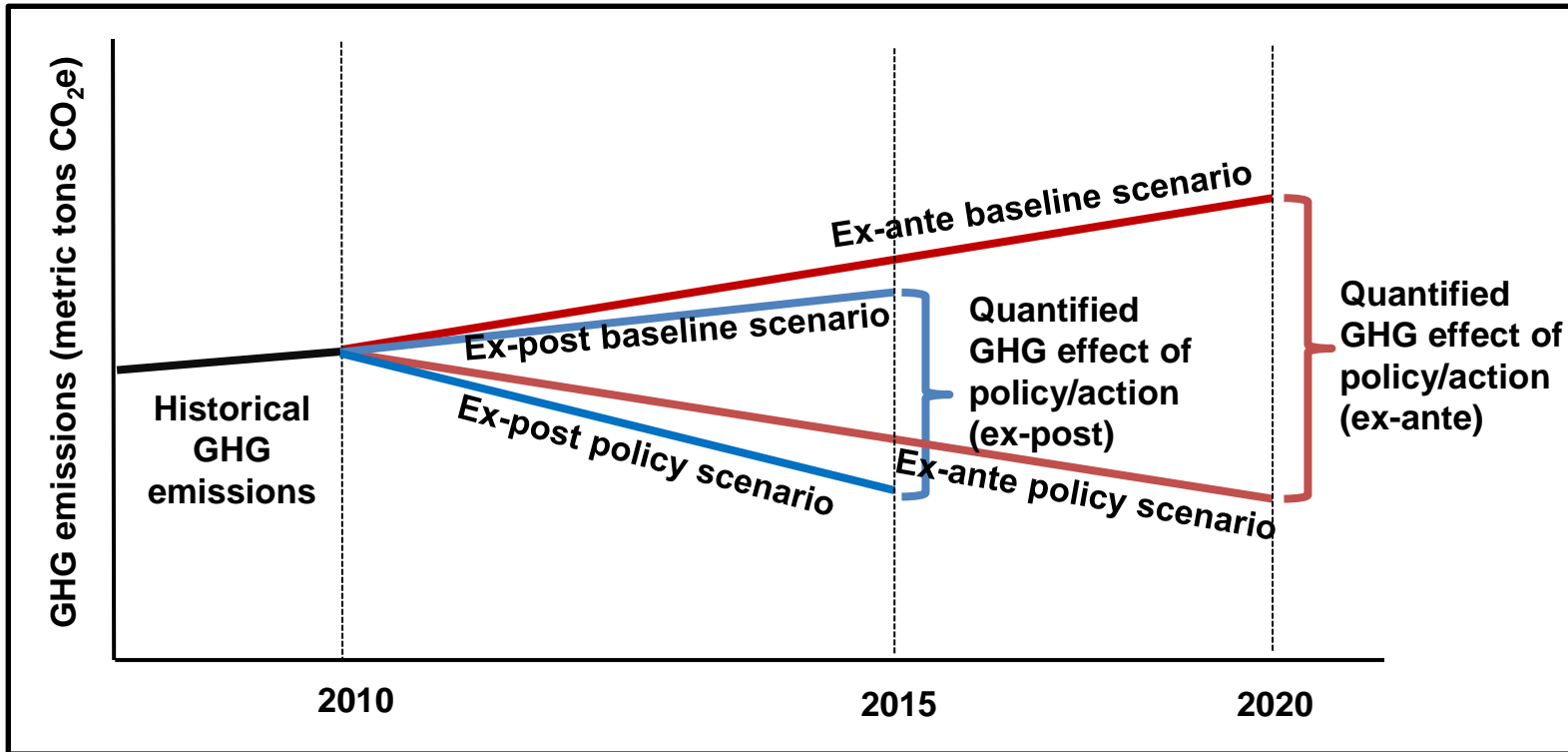
Inputs, activities, and effects

Indicator types	Definitions	Examples for a home insulation subsidy program
Inputs	Resources that go into implementing a policy or action	Financial and human resources needed to implement the program
Activities	Activities involved in implementing the policy or action (undertaken e.g. by a government)	Energy audits, provision of subsidies
Intermediate effects	Changes (e.g., in behavior, technology, processes, or practices) that result from the policy or action	Consumers purchase and install insulation, home natural gas use is reduced
GHG effects	Changes in GHG emissions and removals that result from the policy or action	Reduced CO_2, CH_4, and N_2O emissions from natural gas use
Non-GHG effects	Changes in environmental, social, or economic conditions (other than GHG emissions) that result from the policy or action (e.g., changes in economic activity, employment, health, air quality, etc.)	Increase in disposable income due to energy savings

First stage | **Second stage** | **Third stage** | **Fourth stage** | **X stage**

Subsidy for home insulation

Consumers purchase and install insulation

Reduced energy use in homes

Reduced demand for electricity

Reduced emissions from electricity generation ★

Reduced emissions from home natural gas use ★

Increase in disposable income due to savings

Increased demand for goods & services

Increased production of goods & services

Increased emissions from mfg

Businesses produce more insulation

Increased emissions from mfg ★

Key:

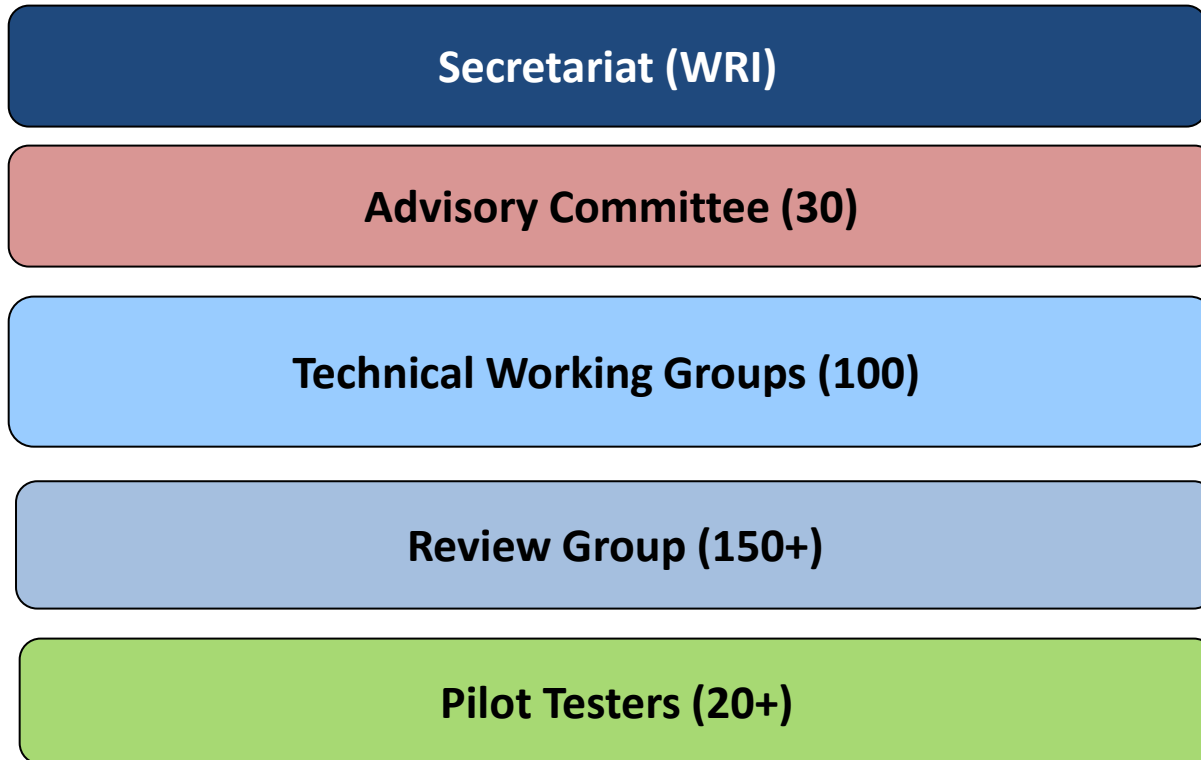| Policy or action |
| --- |
| Intermediate effect |
| *GHG effect* |

Estimate GHG effects of the policy or action

- Define the baseline scenario
  - For each effect, estimate baseline emissions based on underlying drivers
    - Other policies, actions, and projects
    - Non-policy drivers (e.g., GDP, energy prices)

- Define the policy scenario (ex-ante or ex-post)
  - Estimate emissions in the policy scenario based on what is expected to change as a result of the policy

Ex-ante and ex-post assessment

Standard development process

Secretariat (WRI)

Advisory Committee (30)

Technical Working Groups (100)

Review Group (150+)

Pilot Testers (20+)

Advisory Committee members

- Asian Development Bank
- Australia, Department of Climate Change and Energy Efficiency
- Brazil, Ministry of Environment
- California Air Resources Board
- CCAP
- Chile, Ministry of Environment
- China, NDRC
- Colombia, Ministry of Environment and Sustainable Development
- Costa Rican Institute of Electricity
- Ecofys
- Ethiopia, EPA
- European Commission
- Godrej & Boyce Mfg Co. Ltd., India
- India, BEE (TBC)
- Japan, Ministry of Environment
- Johnson Controls

- Maersk Group
- New York City, Mayor's Office
- OECD
- Siemens
- South Africa, Department of Environmental Affairs
- State of Rio de Janeiro
- Stockholm Environment Institute – US
- Thailand Greenhouse Gas Management Organization
- Tsinghua University
- UK DECC
- United Nations Climate Change Secretariat
- UNDP
- US EPA
- WBCSD
- World Bank

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Timeline

Activities	2012				2013				2014			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Convene stakeholder groups	█	█										
Develop first draft standards			█	█								
Workshops (Doha, Washington, Beijing) and review period				█								
Develop second draft standards					█	█						
Pilot test standards							█	█				
Public comment period									█			
Publish final standards										█		

Pilot testing

- Participating countries
  - Belgium
  - Chile
  - China
  - Colombia
  - Costa Rica
  - Germany
  - India
  - Israel
  - Mexico
  - South Africa
  - Tunisia
  - U.S.
  - Others TBC

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Thank you

Jared Finnegan
jfinnegan@wri.org

www.ghgprotocol.org/mitigation-accounting

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