



WORLD
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CONTENT AND CHALLENGES IN DEVELOPMENT OF A NATIONAL MRV SYSTEM

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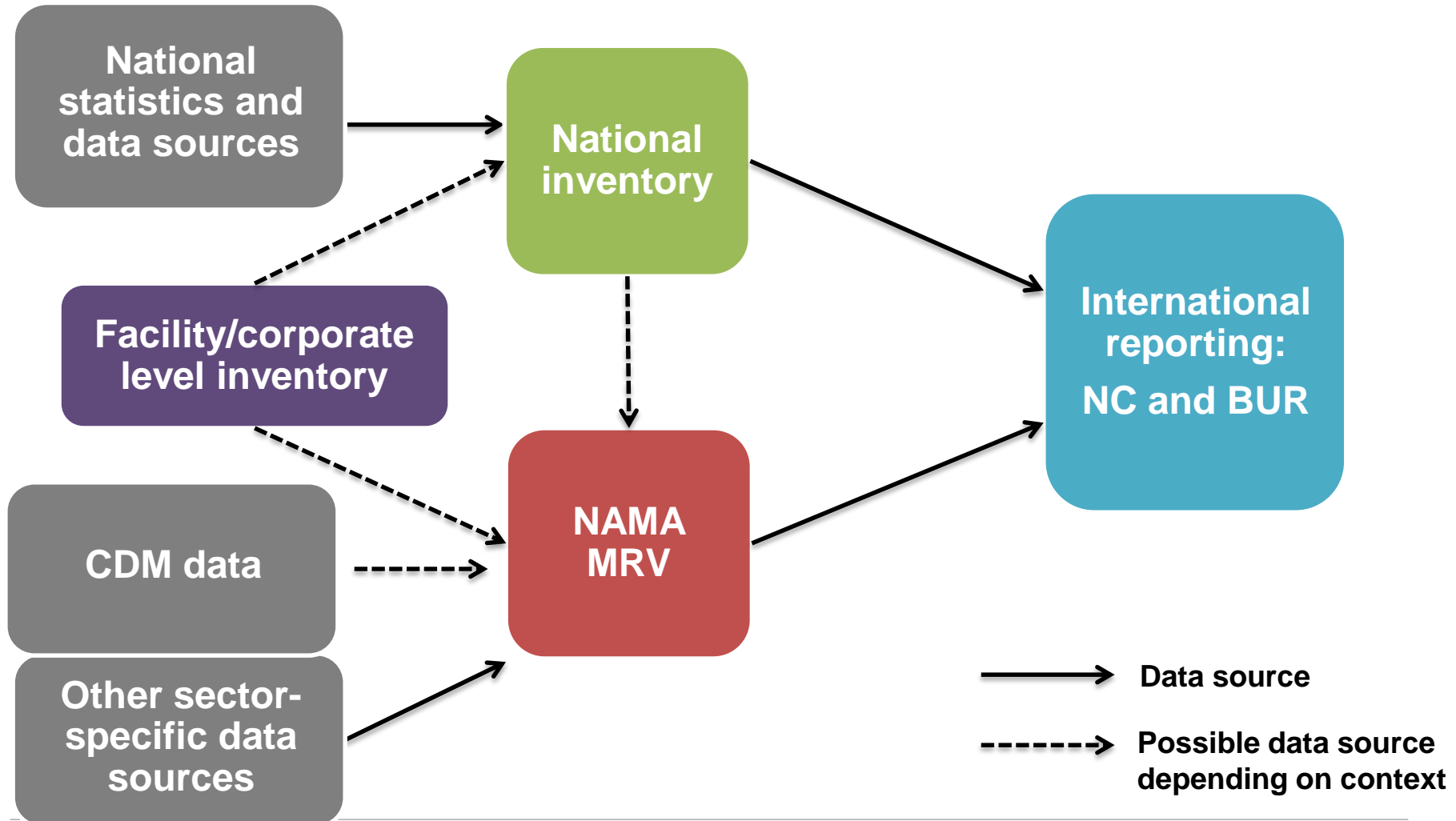
8 July 2014

OVERVIEW OF PRESENTATION

- National MRV systems
 - Components of a national MRV system
 - GHG inventories and facility level reporting programs
 - MRV of NAMAs
 - Linkage of various components
- Challenges
 - Human resources
 - Institutional arrangements

NATIONAL MRV SYSTEMS

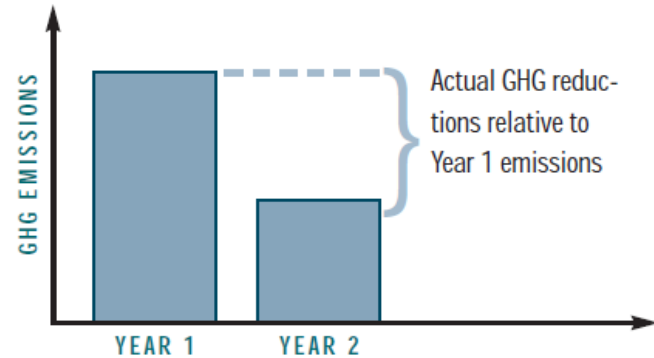
WHAT IS A MRV SYSTEM?



GHG ACCOUNTING APPROACHES UNDERLYING MRV OF EMISSIONS & MITIGATION ACTIONS

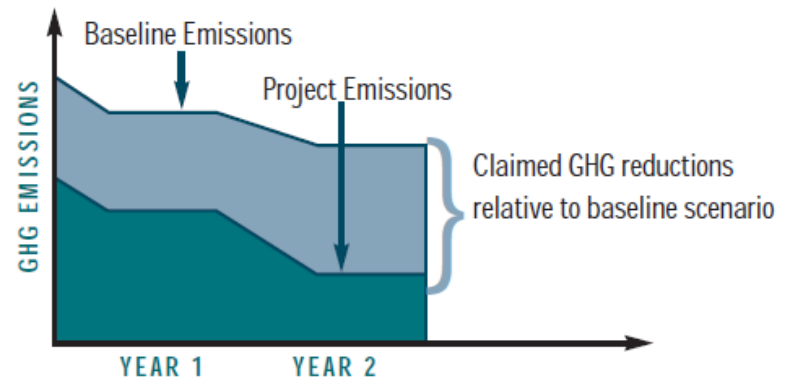
- Inventory accounting: year-on-year emissions tracking

- National inventory
- Company/organization
- Facility



- Intervention accounting: estimating the change in GHG emissions from an intervention

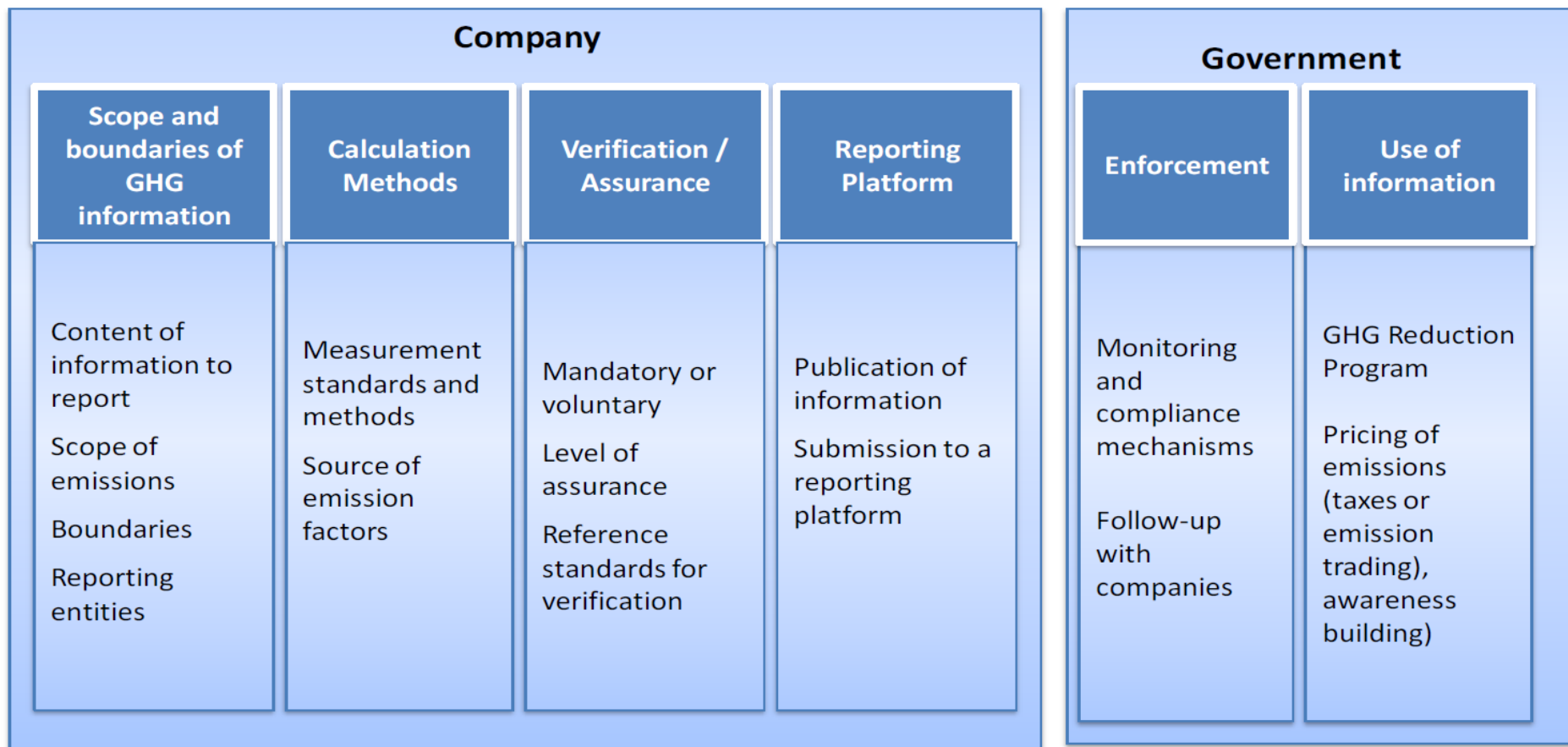
- NAMAs (projects, policies, actions)



TYPES OF GHG INVENTORIES

Type of inventory	Data	Methods
National	Primarily top-down: Developed using aggregated national data (e.g. national fuel consumption data, national energy data); some sources may also rely on bottom-up approaches	Guidelines provided by the Intergovernmental Panel on Climate Change (IPCC)
Company/ Facility	Bottom-up: Developed using activity data obtained at a corporate or source level (e.g., utility bills from metered buildings, fuel consumption from individual company-owned vehicles) or direct measurement of emissions	Standards such as the GHG Protocol Corporate Standard and source specific calculation methodologies. Reporting programs may specify calculation methods.

BUILDING BLOCKS FOR COMPANY- AND FACILITY-LEVEL REPORTING PROGRAMS

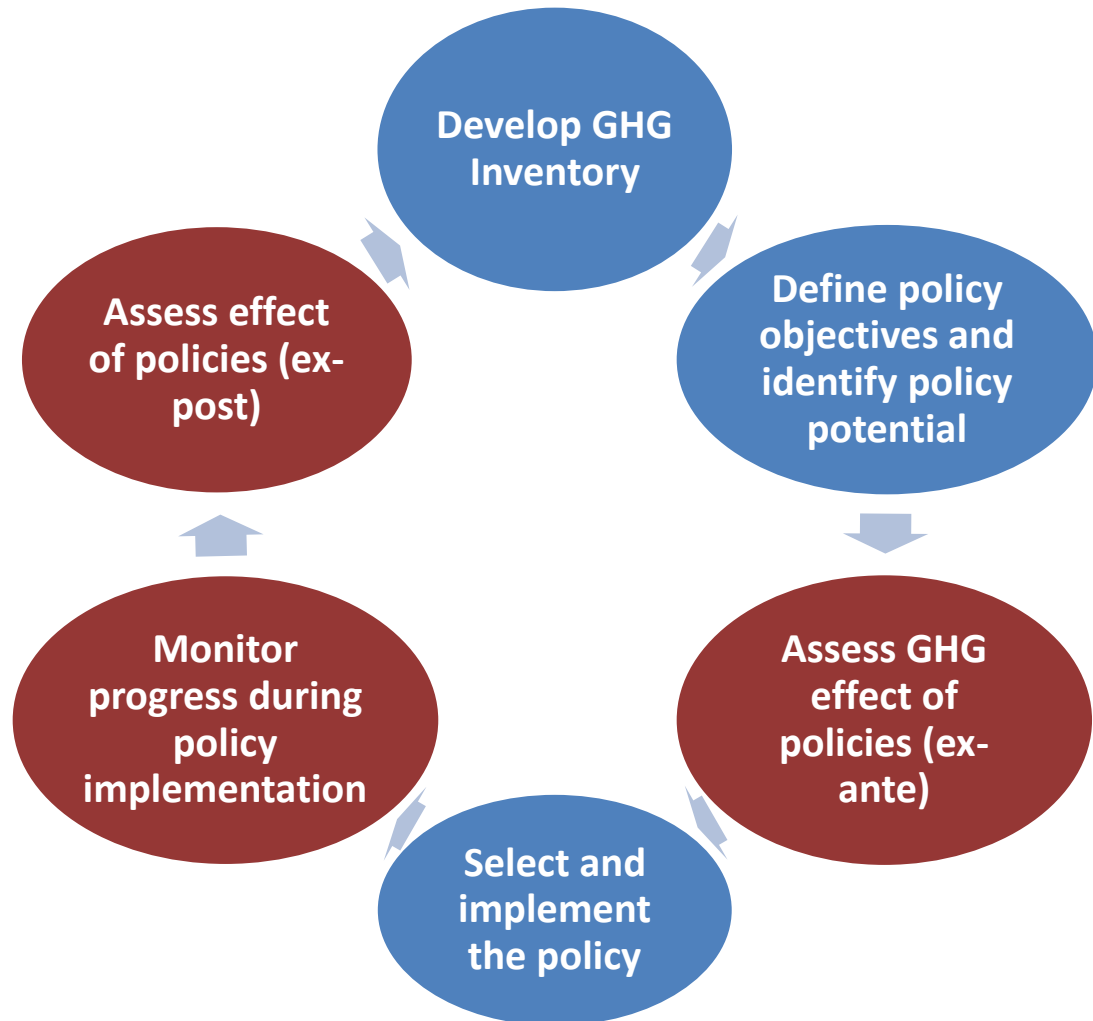


EXAMPLE: US GHG REPORTING PROGRAM

Scheme and date	Legal Framework	Authority	Mandatory / voluntary	Content, scope and boundaries	Calculation methods	Verification/ assurance	Reporting
US Mandatory Reporting of GHG Rule (MRR) 2009	In response to the FY2008 Consolidated Appropriations Act (H.R. 2764; Public Law 110–161), EPA issued the Mandatory Reporting of Greenhouse Gases Rule	EPA	Mandatory	Geographical scope: US Reporting entities: Fossil fuels or industrial GHGs, manufacturers of vehicles and engines, and facilities Content: 6 Kyoto Protocol GHG and HCFCs and other fluorinated gases Boundary: installation Threshold: In general, 25 000 metric tons or more per year of GHG emissions	Methodology: General Reporting Protocol (GRP)	Optional: Self-certification by designated representative who must certify and submit report (one designated rep per facility and supplier)	Recipient of info: US EPA Platform: EPA website Frequency: Annual

The screenshot displays the EPA's e-GGRT (Electronic Greenhouse Gas Reporting Tool) interface. At the top, the EPA logo and navigation tabs (HOME, FACILITY REGISTRATION, FACILITY MANAGEMENT, DATA REPORTING) are visible. The user is logged in as 'Matt Foley'. The main content area is titled 'MF Corporation' and 'e-GGRT Greenhouse Gas Data Reporting (2013)'. A sidebar on the left contains links for 'e-GGRT Help', 'How to add a subpart and report data', 'General reporting information', and 'How to submit an annual report'. The main section includes a 'FACILITY OR SUPPLIER OVERVIEW' box with instructions on adding source/supplier categories and a 'Facility's GHG Reporting Method' set to 'Data entry via e-GGRT web-forms'. On the right, three input fields show '0.0' for CO2 equivalent emissions from facility subparts C-II, SS, and TT; Biogenic CO2 emissions from facility subparts C-II, SS, and TT; and CO2 equivalent emissions from supplier.

ROLE OF MRV IN POLICY DESIGN AND IMPLEMENTATION CYCLE



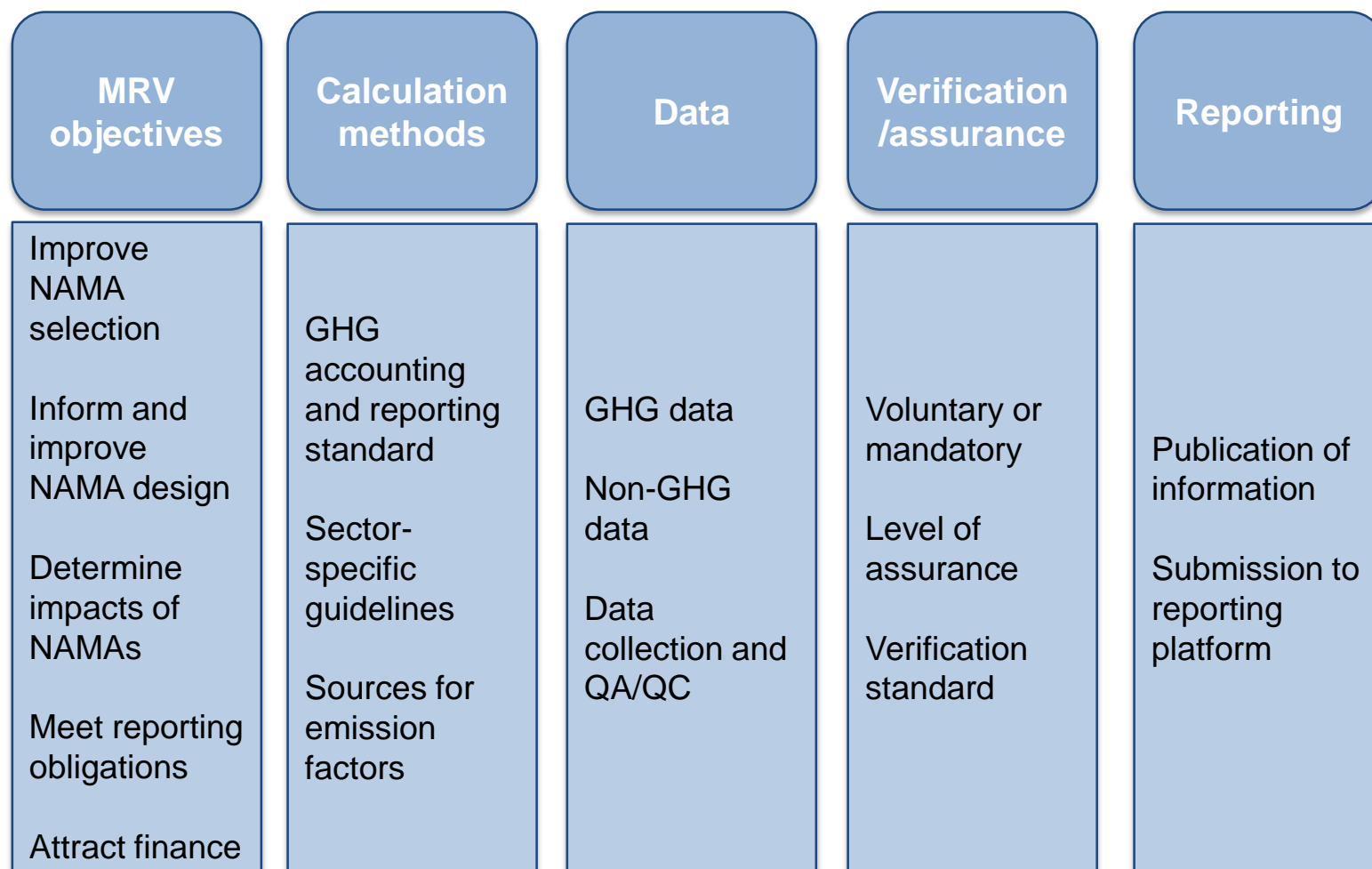
PURPOSE OF EX-POST ASSESSMENT

- Evaluate policy effectiveness to improve policy design
- Decide whether to continue current activities or implement additional policies
- Evaluate the contribution of policies and actions toward GHG reduction goals
- Ensure limited resources are invested efficiently
- Meet funder requirements

MRV OF NAMAS

Type of NAMA	Description/examples	Applicable methods
Project	Specific activity intended to reduce GHG emissions. Could be stand-alone project or component of larger non-GHG project.	<ul style="list-style-type: none"> • CDM methodologies • GHG Protocol for Project Accounting • Climate Action Reserve methodologies • Verified Carbon Standard • J-MRV Guidelines • JI Guidelines
Policy	<p>Interventions such as laws, regulations and standards; taxes, charges, subsidies and incentives; voluntary agreements;</p> <p>Implementation of new technologies, processes, or practices;</p>	<ul style="list-style-type: none"> • GHG Protocol Policy and Action Standard (forthcoming)
Goal	Base year goals, intensity goals, baseline scenario goals and fixed level goals	<ul style="list-style-type: none"> • GHG Protocol Mitigation Goals Standard (forthcoming); Kyoto Protocol accounting rules for Annex I targets

BUILDING BLOCKS FOR MRV OF NAMAS



RECOMMENDED INFORMATION TO REPORT FOR POLICY-BASED NAMAS (SUMMARY)

Description of the policy
Title of the policy
Status (planned, adopted, or implemented) and date of implementation and/or completion
Type of policy or action
Geographical coverage of the policy or action
Primary sectors and subsectors targeted
Greenhouse gases targeted
Description of the specific interventions included in the policy or action
Estimated change in GHG emissions and removals resulting from the policy
The estimated change in GHG emissions and removals resulting from the policy or action
The time period over which the GHG effects of the policy are estimated
Methodology
Any standard, guidance, or methodology followed to estimate the GHG effects of the policy (e.g., Greenhouse Gas Protocol Policy and Action Standard (WRI, 2014))
The GHG assessment boundary, included inclusions and exclusions of effects, sources and sinks, and greenhouse gases
A description of the baseline scenario and the policy scenario, and the methodology, assumptions, and data sources used to estimate baseline and policy scenario emissions
The uncertainty of the results (either a quantitative estimate or a qualitative description)
Whether the results were validated/verified, and if so, the validation/verification opinion

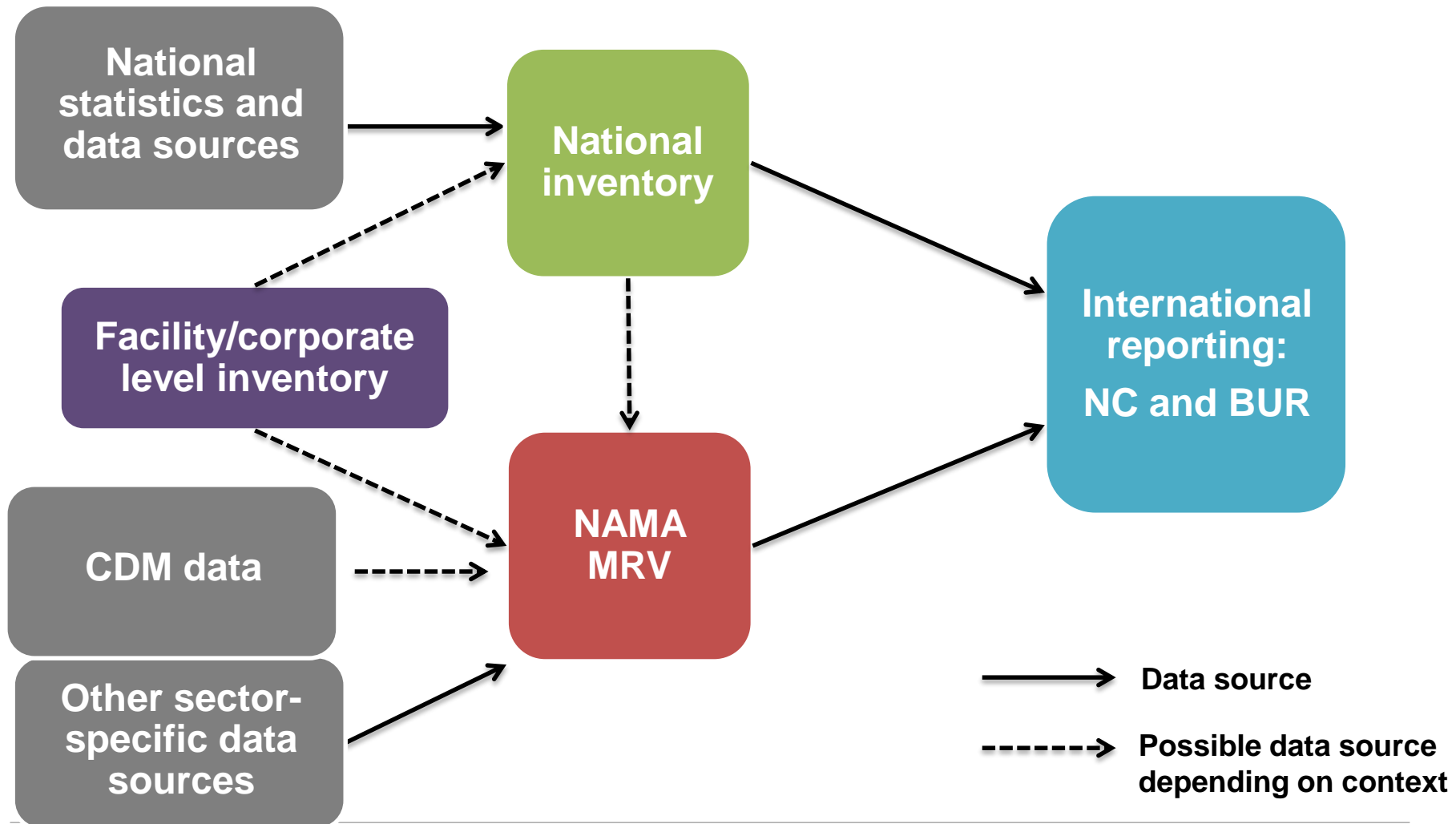
INTERNATIONAL REPORTING OF MITIGATION ACTIONS: EXAMPLE FROM UK

The UK's Sixth National Communication and First Biennial Report under the UNFCCC

Annex 2: Table 3

Name of Mitigation Action	Sectors affected	GHG affected	Objective and or activity affected	Type of Instrument	Status of implementation	Brief Description	Start Year of Implementation	Implementing Entity or Entities	Greenhouse Gas Saving (ktCO ₂ eq)							
									2005	2010	2011	2015	2020	2025	2030	
Building Regulations Part L 2002, 2006, including 2005 condensing boiler update ¹	Business, Residential, Public	CO ₂ , (CH ₄ , N ₂ O)	Improve energy efficiency of buildings	Regulatory	Implemented	Building Regulations set standards for design and construction, which apply to most new buildings and many alterations to existing buildings. They can also set minimum standards for appliances e.g. boilers.	2002	Department of Energy & Climate Change (DECC)	1,363	5,680	6,793	8,879	10,421	7,992	5,279	
Building Regulations Part L 2010 ^{1,2}	Business, Residential, Public	CO ₂ , (CH ₄ , N ₂ O)	Improve energy efficiency of buildings	Regulatory	Implemented	Building Regulations set standards for design and construction, which apply to most new buildings and many alterations to existing buildings. They can also set minimum standards for appliances e.g. boilers.	2010	Department for Communities and Local Government (DCLG)	0	0	0	3,127	5,849	7,246	5,136	
National Products Policy (Tranche 1 – Implemented Measures) ^{1,2}	Business, Residential, Public	CO ₂ , (CH ₄ , N ₂ O)	Reducing energy use and emissions from appliances and products such as white goods, lighting, televisions, heating and cooling systems and electric motors by preventing the sale of the worst performing products and promoting the sale of the most efficient.	Regulatory	Implemented	UK legislation to set minimum energy efficiency standards for products on sale. Mandating energy efficiency labelling of appliances. Most recently implemented by the Eco-Design for Energy Related Products Regulations (SI 2010 No 2617). Implements EU Ecodesign Directive 2009/125/EC (amending 2005/32/EC).	2009	Department for Food, Environment and Rural Affairs (DEFRA)	0	621	1,518	4,278	5,043	2,654	227	

WHAT IS A NATIONAL HARMONIZED MRV SYSTEM?



CHALLENGES

NEED FOR EFFECTIVE AND SUSTAINABLE CAPACITY BUILDING

- Large scale capacity building to fulfil HR needs
- More effective the use of harmonized tools, guidance and guidelines.
- Carefully consider the implications about outsourcing MRV-related activities

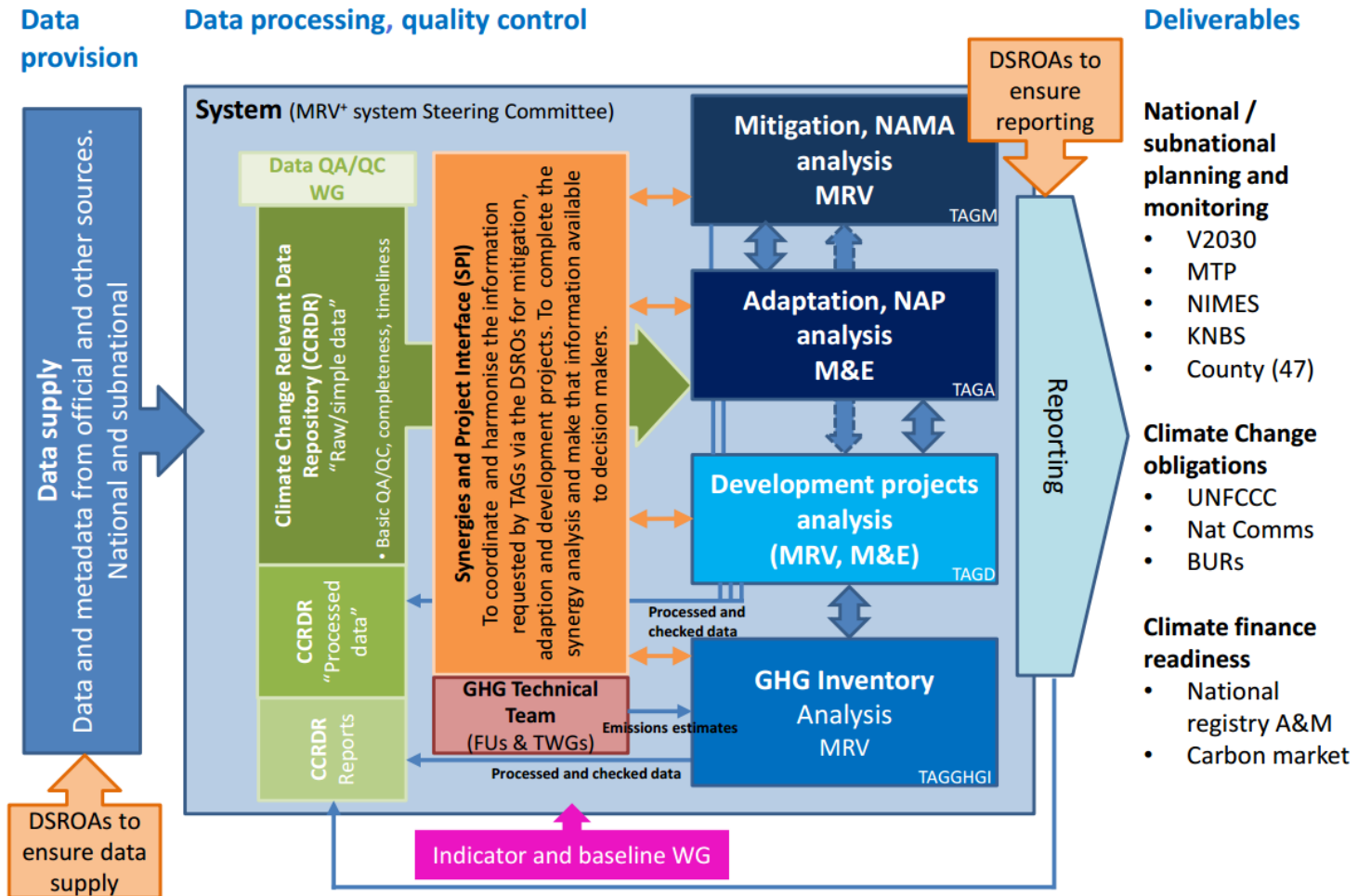
NEED FOR NATIONAL MRV INSTITUTIONS

- Robust institutional arrangements can:
 - Formalize system for data collection and QA/QC
 - Build in-country institutional and technical capacity
 - Ensure institutional memory and long-term sustainability of MRV processes
 - Meet reporting requirements under UNFCCC

KEY INSTITUTIONAL FUNCTIONS FOR NATIONAL MRV

- Designated lead MRV institution
- Clear roles and responsibilities for relevant institutions – governmental and non-governmental
- Mandates for data collection – MOUs and legal mandates
- Data archiving

NATIONAL MRV DATA MANAGEMENT SYSTEM: EXAMPLE FROM KENYA



WRI RESOURCES FOR NATIONAL MRV

MRV Area	Select WRI Resources
Corporate/ facility-level inventories	<p><u>Standard:</u></p> <ul style="list-style-type: none"> • GHG Protocol Corporate Standard <p><u>Analysis:</u></p> <ul style="list-style-type: none"> • “Measuring to Manage: A Guide to Designing GHG Accounting and Reporting Programs” • Assisting with PMR Mandatory Reporting Design Guide • “Designing Greenhouse Gas Reporting Systems: Learning from Existing Programs” September 2013
NAMAs	<p><u>Standard:</u></p> <ul style="list-style-type: none"> • GHG Protocol Mitigation Accounting Standards <ul style="list-style-type: none"> • Policy and Action Standard • Mitigation Goals Standard <p><u>Analysis:</u></p> <ul style="list-style-type: none"> • “Designing National Commitments to Drive Measurable Emissions Reductions After 2020” November 2013 • “Ex-ante clarification and understanding of intended nationally determined mitigation contributions” Forthcoming • “Open Book” collaboration with countries putting forward contributions

THANK YOU

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