

# Climate MRV for Africa – Phase 2

## MRV of Mitigation Actions

### Introduction to MRV & Mitigation Actions



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## Project of the European Commission DG Climate Action

EuropeAid/136245/DH/SER/MULTI

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# Agenda

- Objectives of the Training
- What is MRV?
- What are mitigation actions?
- Why MRV - requirements and benefits?



# Objectives of the Training

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- Acquire broad, yet detailed, understanding of the available approaches and methodologies for MRV of mitigation actions at the national level in terms of sector-wide policies and interventions;
- Apply in practice (during the training) some of these methodologies to specific sector-wide policies and interventions;



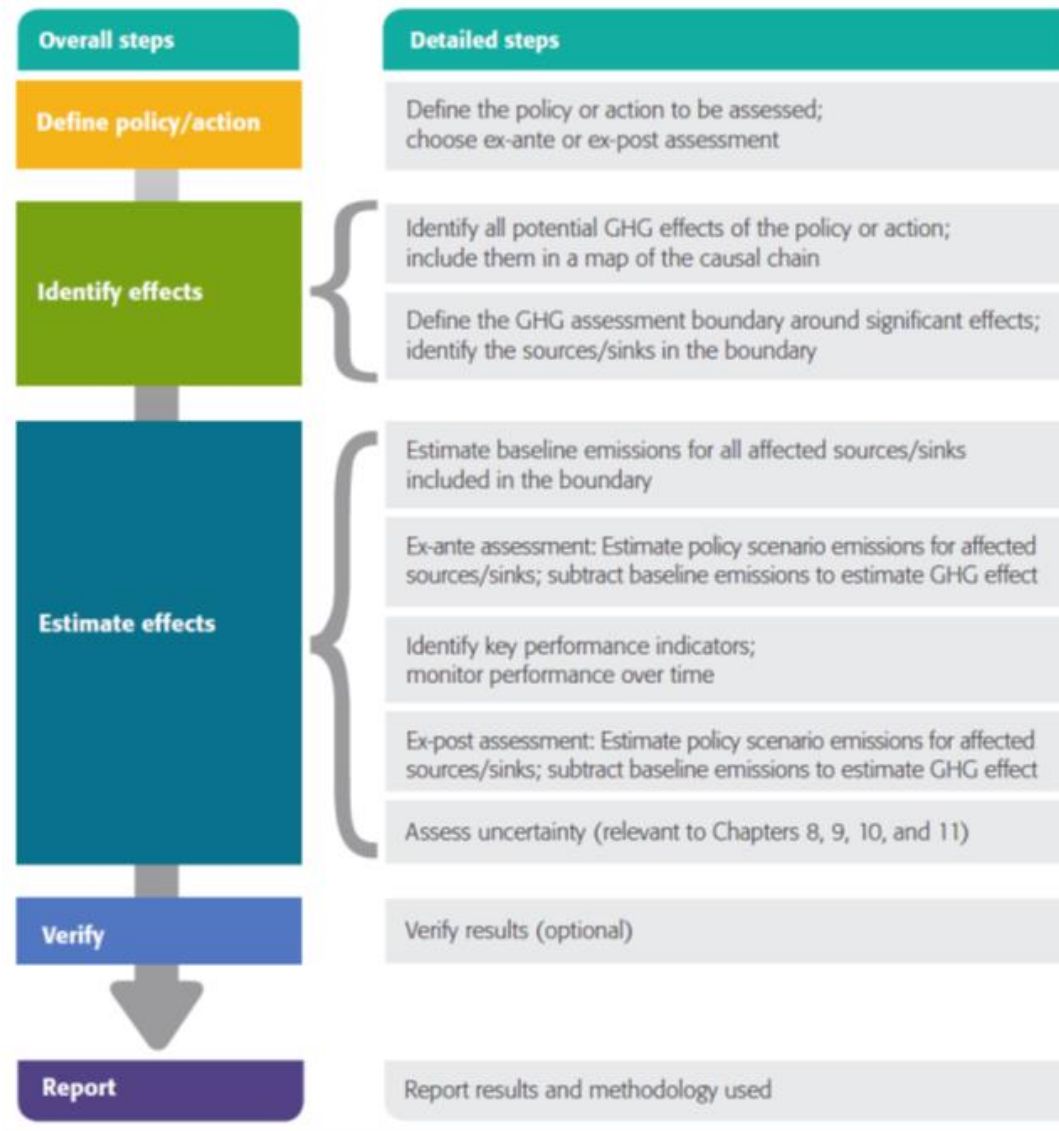
# Training Objectives

**Focus on four Egyptian Priority Mitigation Actions through Energy Efficiency in:**

- Street and Building Lighting
- Irrigation
- Waste (RDF)
- Transport (Mass Rapid Transport/MRT)



# Training Approach: Mitigation MRV Framework



# What is MRV?

# What is MRV?

- **MRV:** is a term used to describe all measures which countries take to collect data on emissions, **mitigation actions** and support
  - **Measure:** Direct or estimated calculations **following strict guidance and protocols**. This can include direct measurement using devices or estimation using simple methods or complex models
  - **Report:** Documentation intended to inform all interested parties. This includes information on methodologies, assumptions and data.
  - **Verify:** Specific procedures or expert review used to verify the quality of the data. Verification can be internal or external





# Why MRV?

# Why MRV of Mitigation Actions?

- UNFCCC requires all Parties, taking into account their responsibilities and capabilities, to formulate and implement programmes containing measures to mitigate climate change.
- MRV of mitigation actions is an essential element for meeting UNFCCC reporting requirements – specifically relevant to National Communications (NCs), Biennial Update Reports (BURs) & Nationally Determined Contributions (NDCs) following Paris Agreement (COP21) 2015.



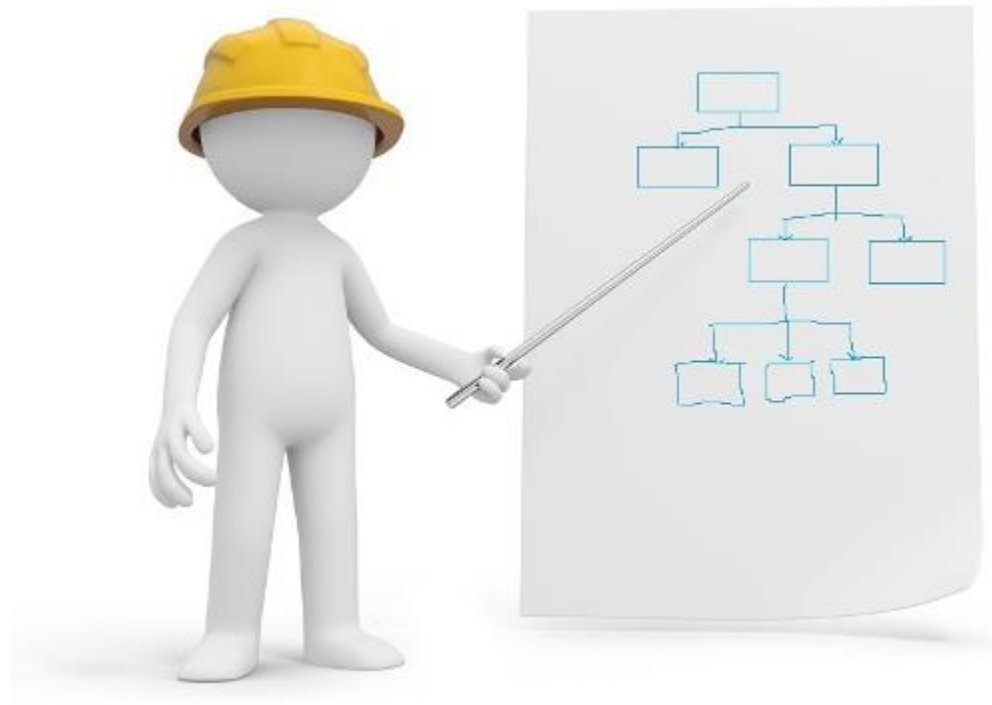
# Why MRV of Mitigation Actions ?

- Meet reporting requirements under the Convention
- Build national capacities and ensure sustainability of reporting processes
- Inform national and international policymakers, at different levels
- Provide the information basis for planning and implementing mitigation actions
- Identify needs for technical and financial support
- Assist in institutionalizing activities relating to reporting on climate change



# Scope of Mitigation Actions?

- Policies & Measures
- Setting framework for plans & investments
- Can be:
  - Economy-wide
  - Cross-sectoral
  - Sector-specific
  - Technology-based



# Why Mitigation Actions?

- Mitigation actions could be economy-wide, cover several or single sectors, such as energy supply and demand, transport, buildings, industry, agriculture, forestry and waste management.
- There is a number of mitigation options, which Parties may use taken into count their national circumstances, availability of technology and financial resources, mitigation potential and the policy implementation issues.
- There is also a link between climate change mitigation, adaptation and sustainable development

# What are Mitigation Actions?

# What are “Mitigation Actions”?

- Mitigation actions are activities taken which result in a net reduction in GHG emissions.
- Most extensive mitigation actions taken, thus far, under UNFCCC, have been projects under the “Clean Development Mechanism (CDM)” in non-Annex I (NAI) countries
- Increasingly, since 2007 (COP 13, Bali), “Nationally Appropriate Mitigation Actions (NAMAs)” have been promoted.



# Supply side Mitigation Actions

- Major Supply Side Mitigation Actions:
  - Investment in new technologies & equipment
  - Retrofitting plants, buildings, machinery, etc.
  - Investment in renewable energy including:
    - Solar (electricity generation, water heating, space heating, etc.)
    - Wind (electricity generation, water pumping, etc.)
    - Geothermal (electricity generation, heat production for buildings, for industry, commerce, etc.)
    - Biomass (e.g., biofuels, including biodiesel, waste/residues for electricity, heating, cooking, etc.)



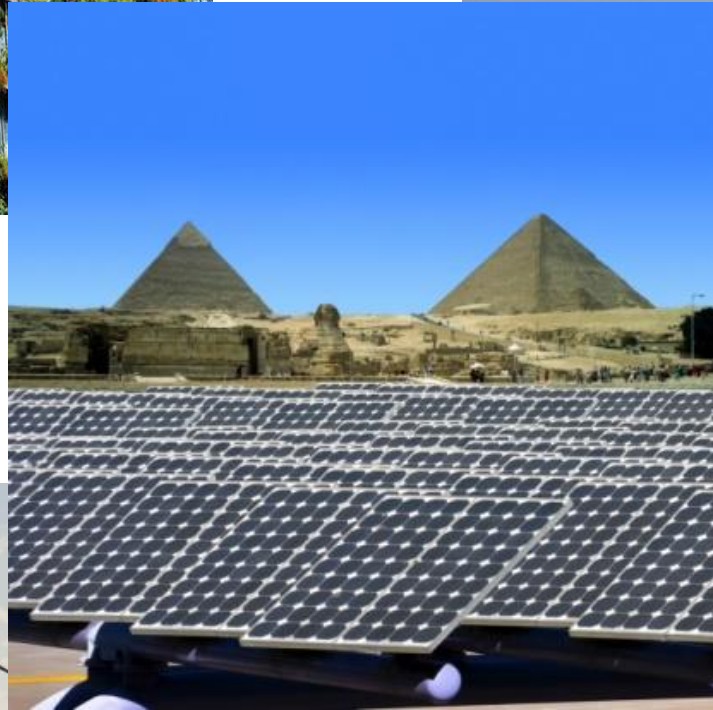


# Demand side Mitigation Actions

- Energy efficiency:
  - Public transport (e.g., metros, buses, rail, etc.)
  - Industry (e.g., improved industrial energy management)
  - Agriculture (e.g., improved irrigation pumping)
  - Buildings (e.g., residential & institutional cooling, lighting, refrigeration, cooking, etc.)
  - Public lighting (e.g., improved street lighting).



# Modern Low Carbon Mitigation Actions



# MRV Requirements and Benefits

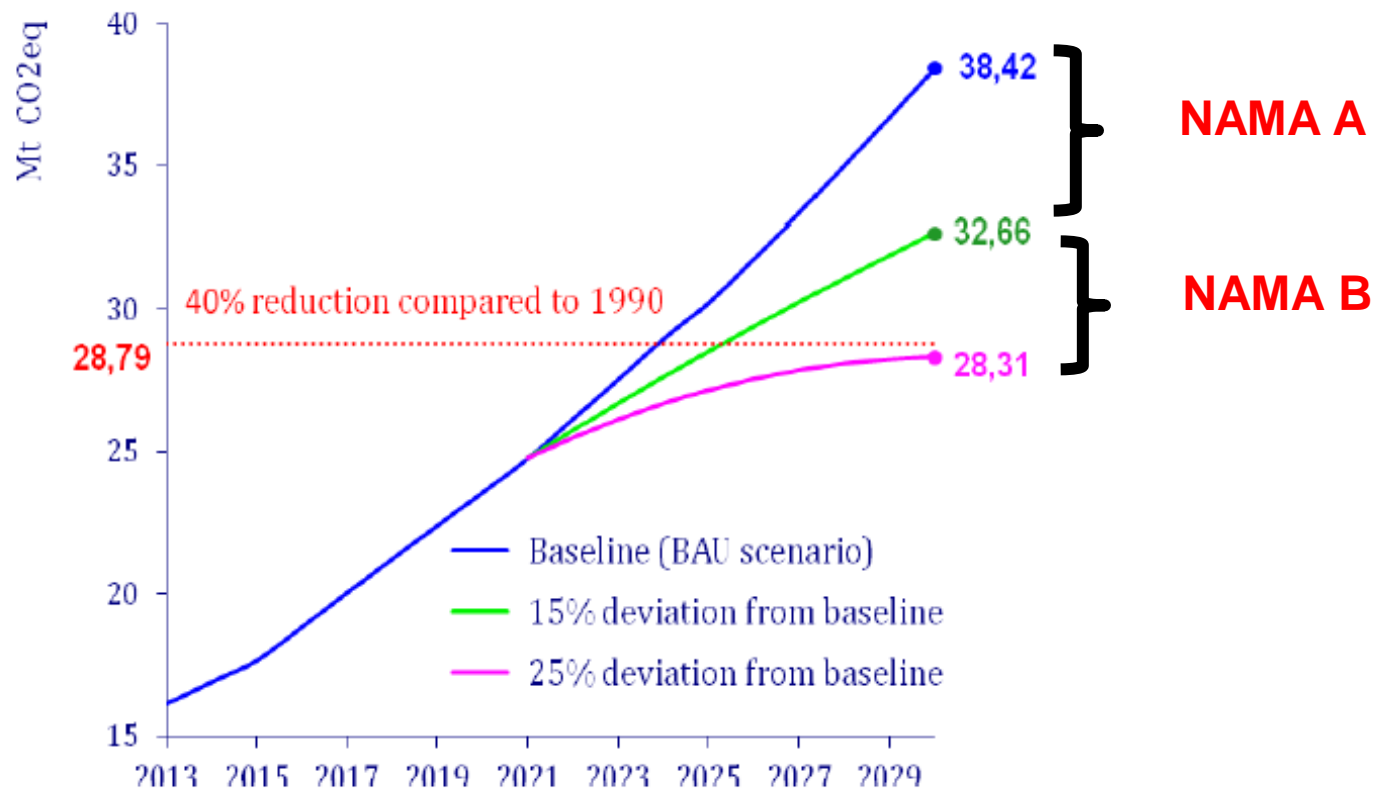
# MRV Requirements & Benefits

- As noted, UNFCCC requires mitigation activities to be reported through NCs, BURs & NDCs
- MRV:
  - Identify, & focus on, national policies & priorities, which, in turn, should help define climate change mitigation actions
  - “Ex-ante” (before the project) MRV helps to prioritise any mitigation action relative to other actions
  - Helps track progress towards achieving national objectives
  - Helps provide QA on effects of mitigation actions

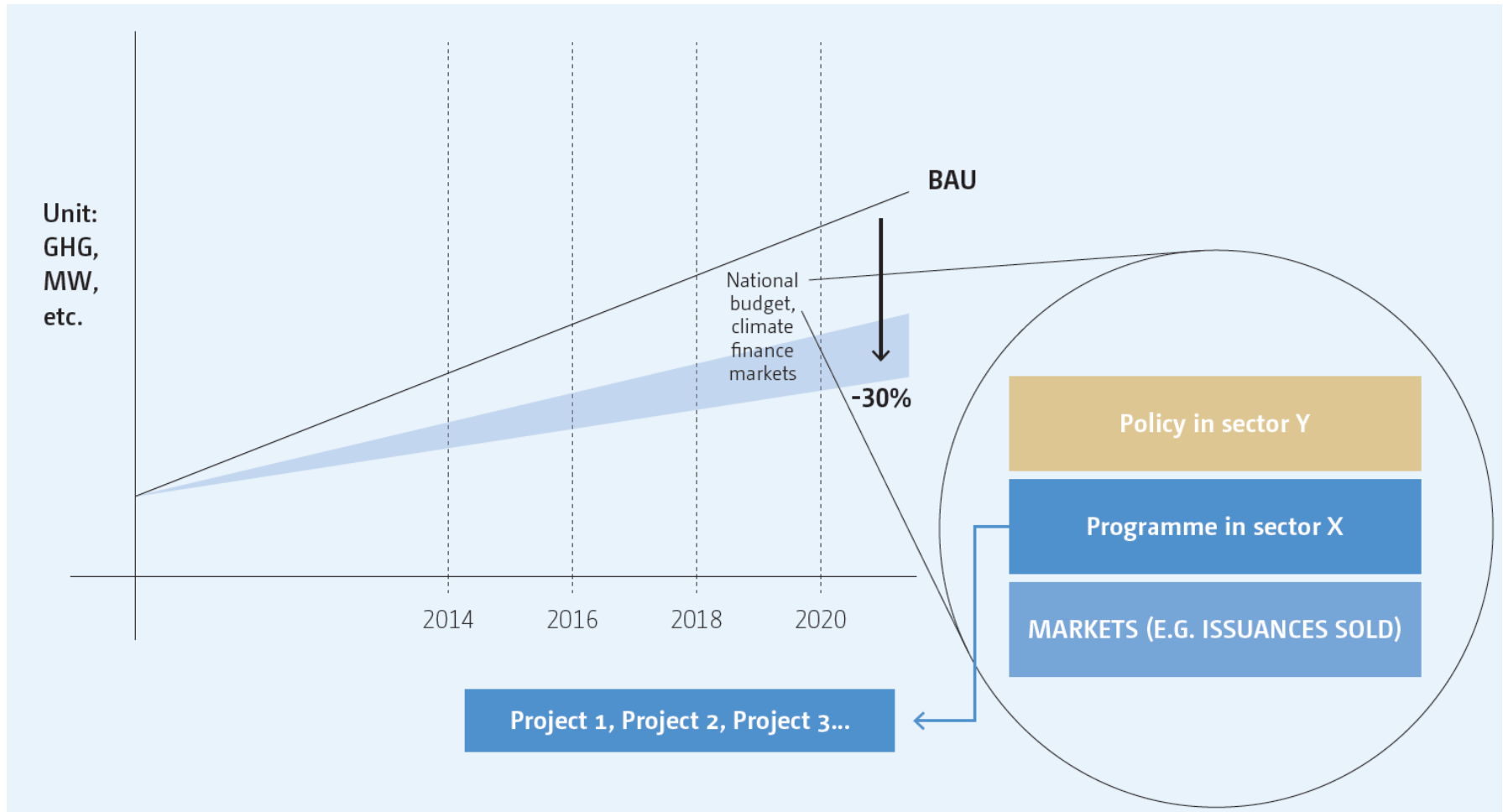
# How are NAMAs and INDCs linked?

- NAMAs and NDCs are different but complementary concepts
  - NDCs are **ambitions** and NAMAs are **actions** (to meet ambitions)
  - NAMAs focus on implementing activities to mitigate climate change
  - Both require MRV to measure progress

# How are NAMAs and NDCs linked



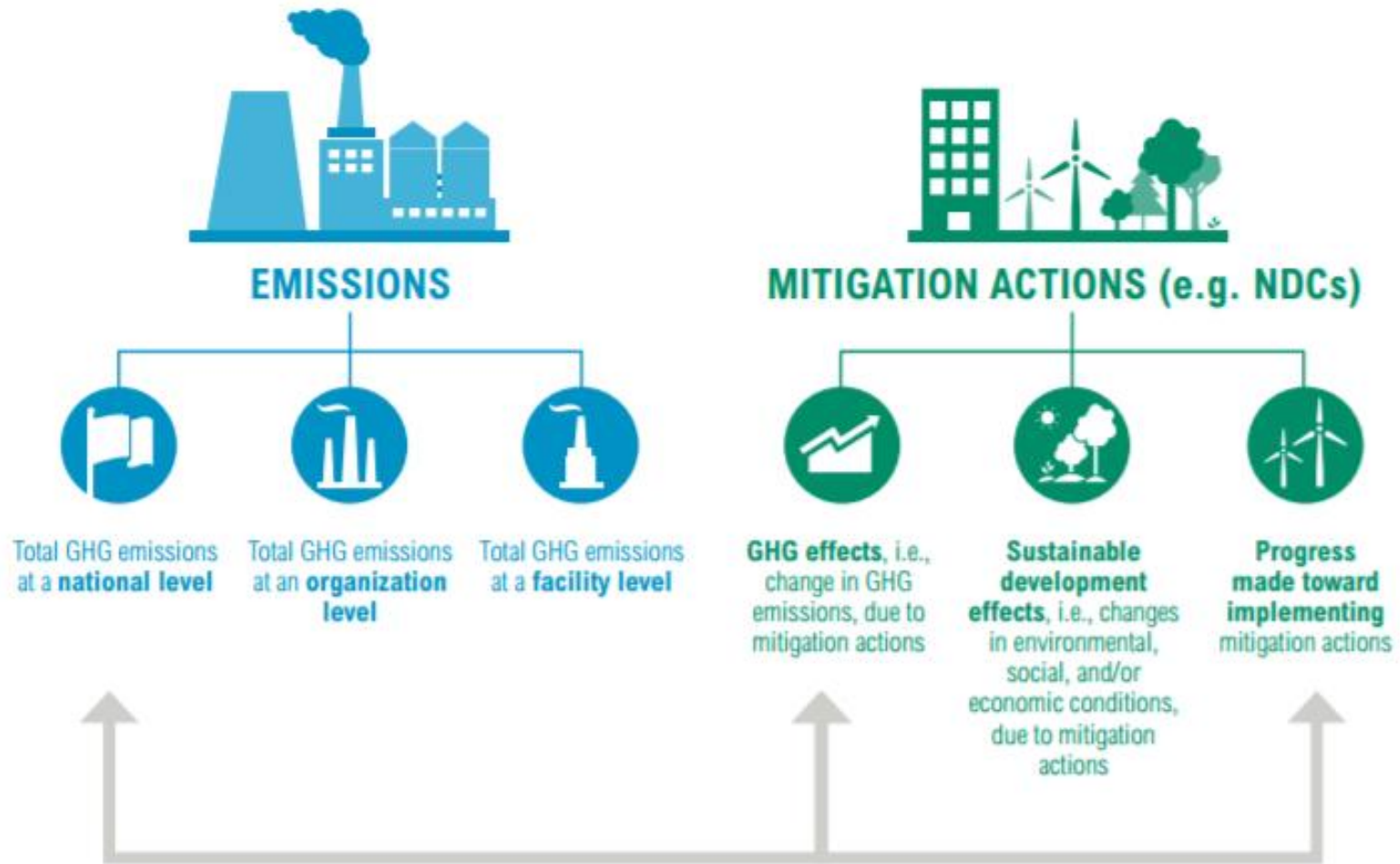
# UNFCCC Mitigation Actions MRV Framework



UNFCCC, Handbook on Measurement, Reporting and Verification for developing country Parties



# Synergies between MRV for Emissions & MRV for Mitigation Actions (NDCs, NAMAs)





# Thank you!

Amr Osama Abdel-Aziz, Assen Gasharov, Mike Bess and Laura Lahti