

# Harmonizing Mitigation Activities with National Inventories for Effective NDC Tracking

Experience and Lessons Learned from  
Government of Colombia and USAID RALI

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July 18, 2018



The Leadership Compact, a partner program of the LEDS GP, is a partnership of 12 countries that are leaders in advancing economic development through low carbon solutions. The Leadership Compact focuses technical support on design and implementation of policies, measures, and actions that enable Compact countries to unlock private investment and business partnerships to achieve these priority climate and development goals.

Partner countries include Colombia, Mexico, Peru, Jamaica, Vietnam, Kazakhstan, Senegal, Ghana, Sierra Leone, Malawi, Kenya and Morocco.

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- Introduction to RALI project
- Transparency Needs Under the Paris Agreement
- Country Spotlight: Colombia's Experience
  - Moving from Kyoto to Paris
  - Strengthening and Harmonizing GHG Tracking
- Overview of RALI/Colombia Activities
  - RALI GHG MRV Framework
  - SINGEI Prototype
- Questions



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USAID Resources to Advance LEDS Implementation (USAID RALI)

# INTRODUCTIONS

## RALI - Resources to Advance LEDS Implementation

- Supports technically rigorous development and implementation of Low Emission Development Strategies or LEDS
- Focus on providing tools and technical assistance to USAID and developing country partners

# Who We Are: RALI Activities

## CLEAN ENERGY EMISSION REDUCTION TOOL

Projected GHG Emission Reductions **1**

Years	Projected Emission Reductions (tCO <sub>2</sub> e)
2017 - 2020	373,077.27
2021 - 2025	455,949.52
2026 - 2030	444,664.20
Total GHGs Reduced/Avoided from 2017 - 2030	1,273,690.99

Projected GHG Emission Reductions by Action

## Clean Energy Emission Reduction (CLEER) Tool

## Analysis of Intended Nationally Determined Contributions (INDCs)

June 2016

This document was prepared for the United States Agency for International Development (USAID) Resources to Advance LEDS Implementation (RALI) Program by ICF International under Agreement No. AID-CMA-LA-14-00010. The contents are not the responsibility of USAID and do not necessarily reflect the views of the United States Government.

## NDC PARTNERSHIP

ACCELERATING CLIMATE AND DEVELOPMENT ACTION

## NDC Implementation Support

## LEDS in Practice

January 2017

### Benefits of low emission development strategies

The case of Kenya's Lake Turkana Wind Power Project

Famela Colson, Jessica Kuna, and Emily Gault, ICF, USA

**Key messages**

As Africa's largest wind farm, the Lake Turkana Wind Power Project will increase the national electricity supply while creating jobs and reducing greenhouse gas emissions. 310 MW of wind energy capacity will:

- mitigate greenhouse gas emissions equal to 740,000 metric tons of carbon dioxide equivalent (tCO<sub>2</sub>e) annually
- increase national electricity supply by 15-20% (relative to 2015 generating capacity)
- enhance reliability of energy supply
- stabilize energy prices
- create more than 2,000 local jobs including 150 permanent jobs
- mitigate human health impacts from harmful air pollutants
- improve access to food, health facilities, and water through corporate social responsibility programs
- increase income generating opportunities
- improve local education

**Overview of the Lake Turkana Wind Power Project<sup>1</sup>**

The Lake Turkana Wind Power Project (LTPWP), currently under construction, will add 310 megawatts (MW) of wind power capacity to Kenya's national grid through the installation of 305 turbines, construction of 436 km of transmission lines, and rehabilitation of more than 200 km of existing roads.<sup>2</sup> In addition to the investment opportunity LTPWP provides for its stakeholders, the project represents a strategic opportunity to help Kenya meet its socioeconomic development and sustainability goals.

The wind farm is being built in the Lokajungui District of Marsabit West County in Kenya, covering an area of 162 km<sup>2</sup>. The site was selected for the strength of its wind resources along with its remoteness, unobstructed environmental landscape, road accessibility, security of the area, and low population density with the project area inhabited by roughly 1,000 nomadic pastoralists.<sup>3</sup>

**The LEDES GP Benefits Working Group** focuses on the "G" in low emission development strategies: providing knowledge products, training, tools and technical assistance to identify, communicate, and integrate development impacts beyond emission reduction.

Contact: [ben@rali.org](mailto:ben@rali.org)

Low Emission Development Strategies Global Partnership

## Technical Assistance and Best Practices

# RALI's Engagement in Colombia

- 18-month engagement
  - (January 2017 to June 2018)
- Working closely with:
  - Ministry of Environment and Sustainable Development (MADS)
  - Institute of Hydrology, Meteorology, and Environmental Studies (IDEAM)
  - USAID Colombia
  - Other local stakeholders
- Engagement included:
  - Technical analysis
  - Technology development
  - Harmonization pilot projects
  - Capacity building and global knowledge sharing



Top to Bottom: LAC LEDES Workshop in Mexico City; COP23 in Bonn, Germany; Closing mission in Bogota, Colombia



The Challenge

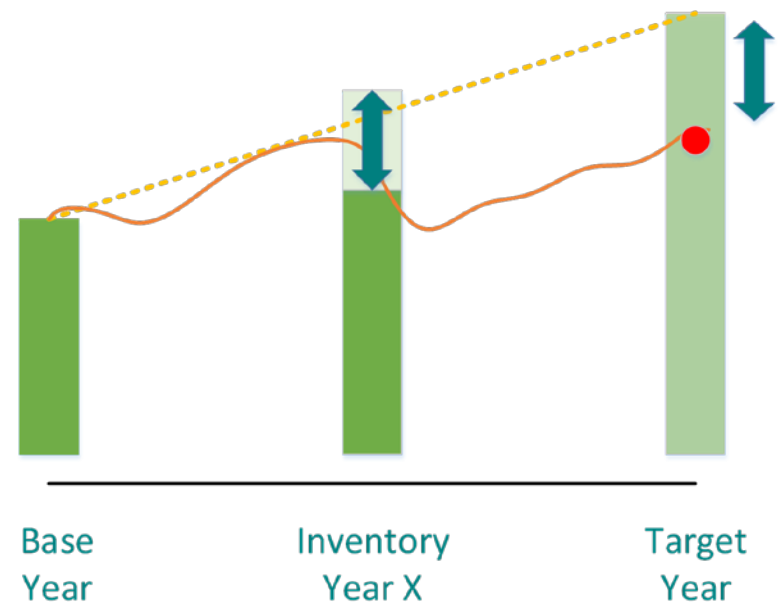
# Transparency Needs Under the Paris Agreement

- The Paris Agreement requires countries to set increasingly ambitious emissions targets (NDCs)
- Meeting these targets requires an established measurement, reporting, and verification (MRV) system for GHG emissions
- NDC targets will require bottom-up sectorial compliance data for national programs

Exact MRV requirements under the Paris Agreement are still under development, but the agreement calls for countries to track progress in achieving NDCs, which will require an established MRV system

# How do Mitigation Efforts Impact UNFCCC Emission Reporting?

- Many countries have committed to reductions relative to BAU
- National inventories will likely show increasing emissions
- Mitigation activities should show emission reductions
- Countries need to harmonize mitigation MRV with the national emission inventory/BUR process
- Having a central system to aggregate data can drastically improve the GHG inventory process and harmonization of data



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Moving from Kyoto to Paris

# Colombia's Experience



# Webinar LEDS LAC: RALI - Colombia



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Cambio Climático

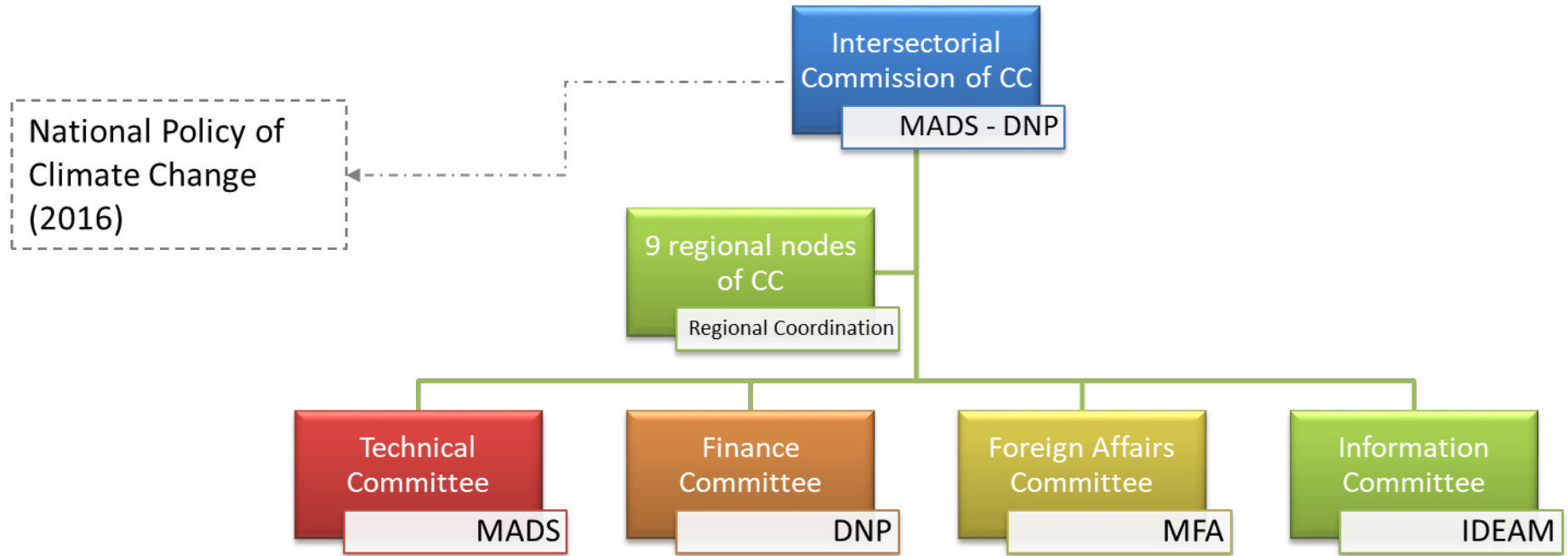


## Country perspective: Colombia





# National climate change system - SISCLIMA



**MADS:** Ministry of Environment and Sustainable Development

**DNP:** National Planning Department

**MFA:** Ministry of Foreign Affairs

**IDEAM:** National Institute of Hydrology, Meteorology and Environmental Studies



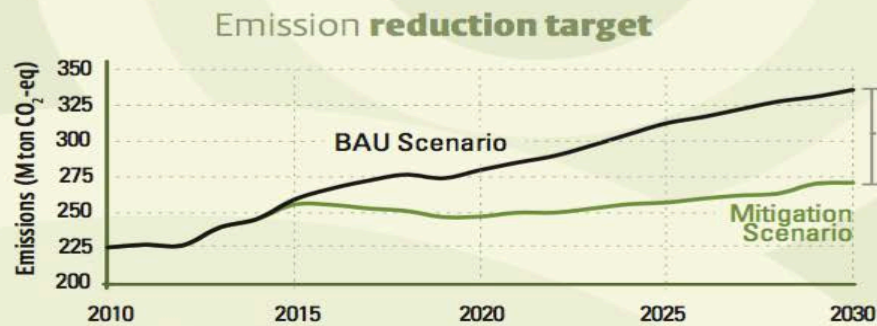


# Implementing the Paris Agreement in Colombia

## COLOMBIA: MITIGATION GOAL

### Unilateral and unconditional target

Colombia commits to reduce its greenhouse gas emissions by 20% with respect to the projected Business as Usual scenario (BAU) by 2030.



20% reduction compared to the BAU scenario



### Conditional Target

Subject to the provision of international support, Colombia could reduce its greenhouse gas emissions by 30% with respect to BAU by 2030.



# From Kioto to París

## MRV – Project approach:

1. Emissions
2. Reductions
3. Financing
4. MRV - M&E

## MRV Principles:

Continuous improvements, flexibility, environmental integrity and efficiency.

## Information management for the Paris Agreement

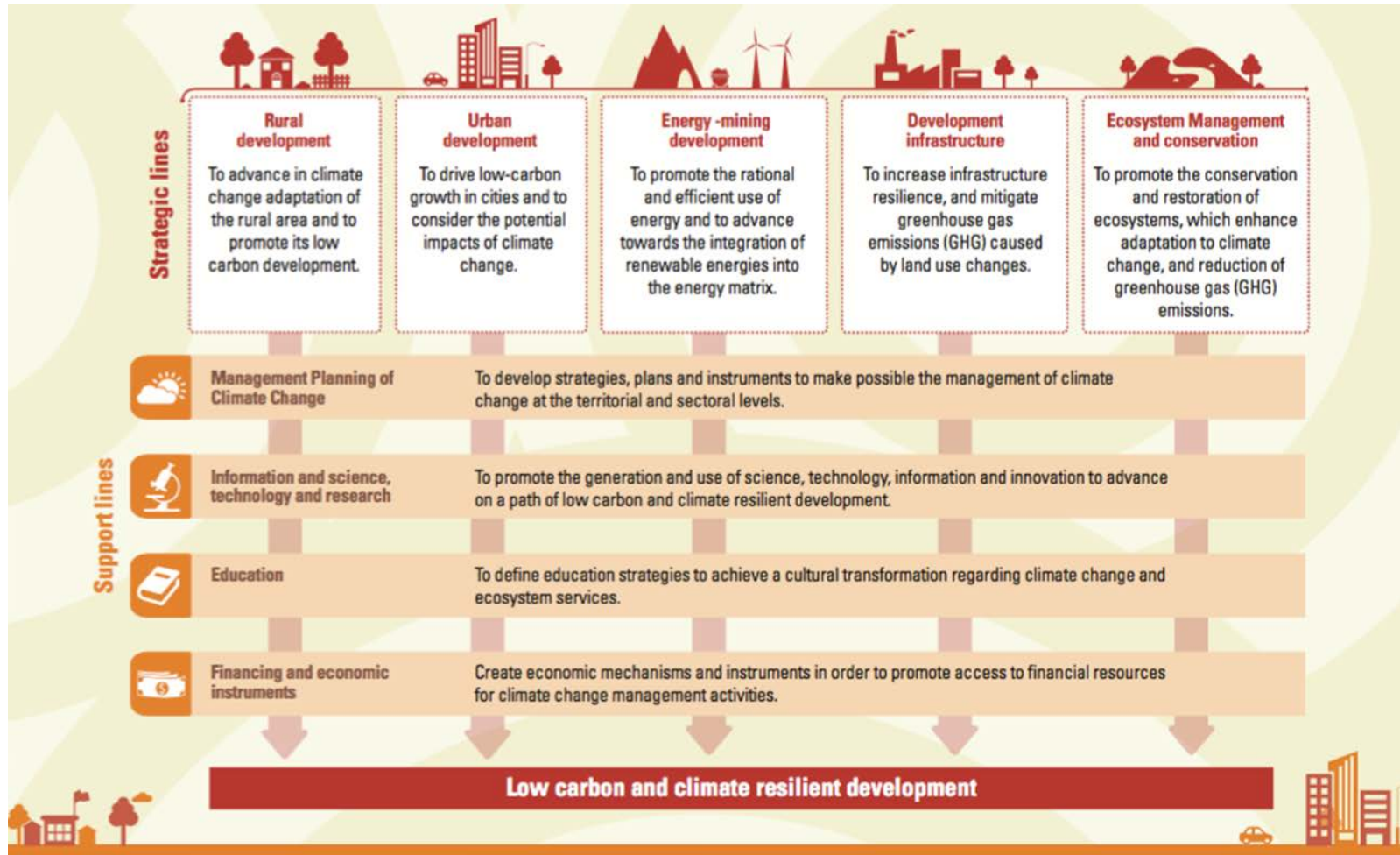
1. NDC tracking and mitigation goals accomplishment.
2. Climate change policies performance tracking.
3. NDC goals in mitigation and adaptation.

## Transparency Framework for the Paris Agreement

- Accounting rules
- Legal framework
- Technological tools

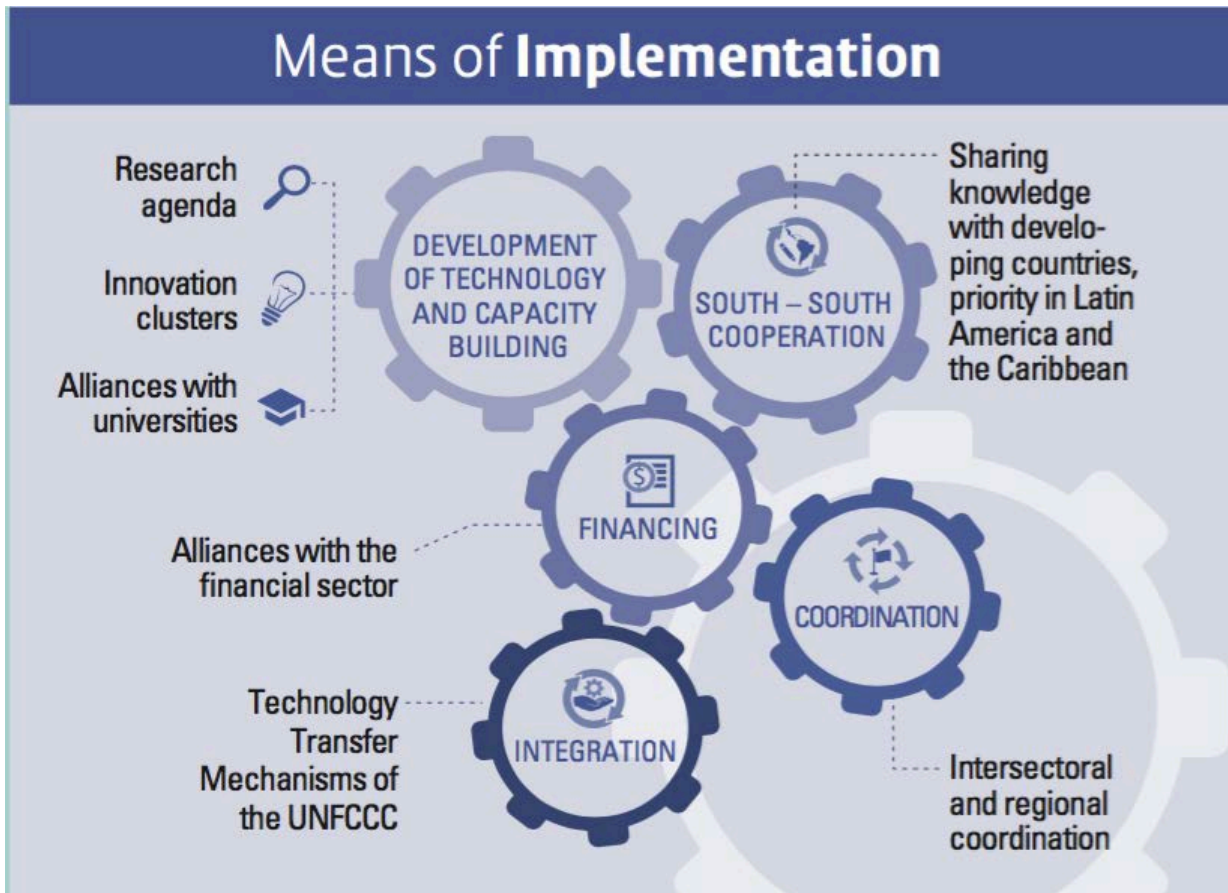


# Country perspective: National climate change policy





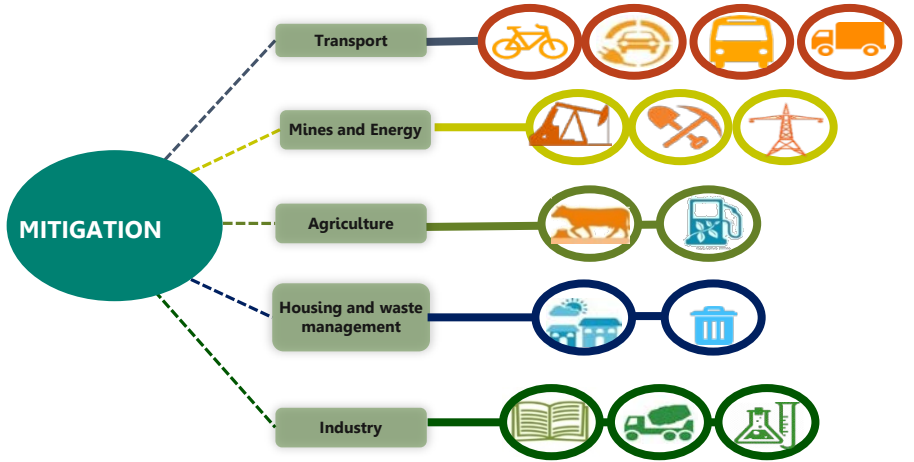
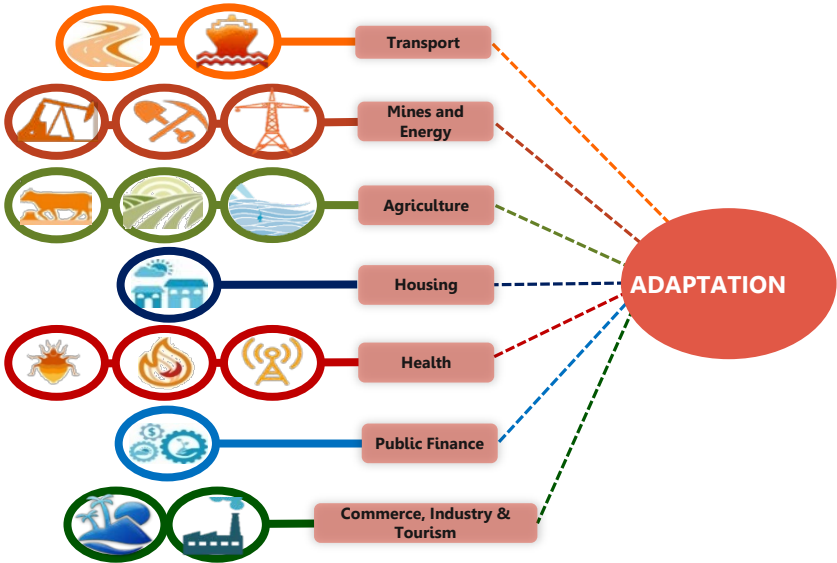
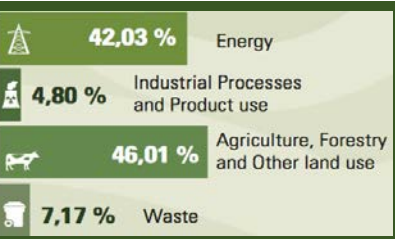
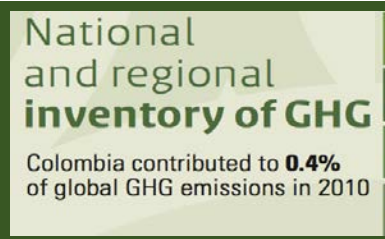
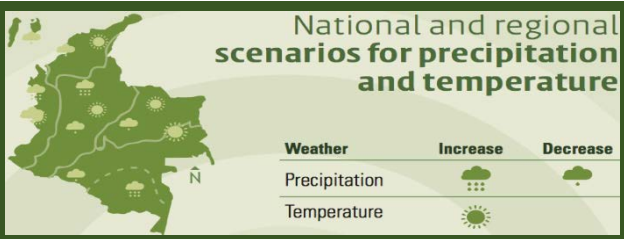
# NDC:



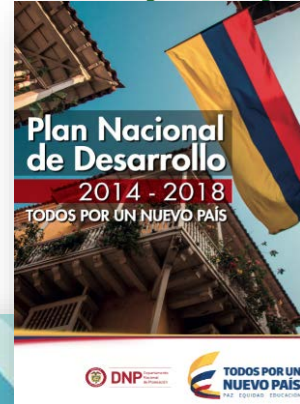


# Implementing the Paris Agreement in Colombia

## Prioritized sectors for adaptation and mitigation goals





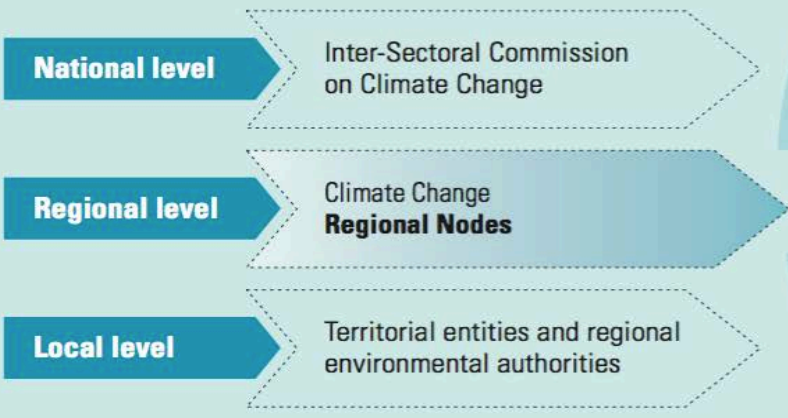


# Country perspective: Colombia

## Law 1753/2015 "National Development Plan"

The Ministries of Finance; Agriculture and Rural Development; Mines and Energy; Transport; Health and Social Protection; Housing, City and Territory; and Trade, Industry and Tourism must formulate and implement **sectoral plans for adaptation** to climate change, and **sectoral action plans** of the Colombian Low Carbon Development Strategy, which will contain **quantitative sectoral GHG** reduction targets for short (2020) and medium term (2025 or 2030).

## Institutional articulation SISCLIMA (Decree 298/2016)



Law 1844/2017 - Ratification instrument for the Paris Agreement - July 12th



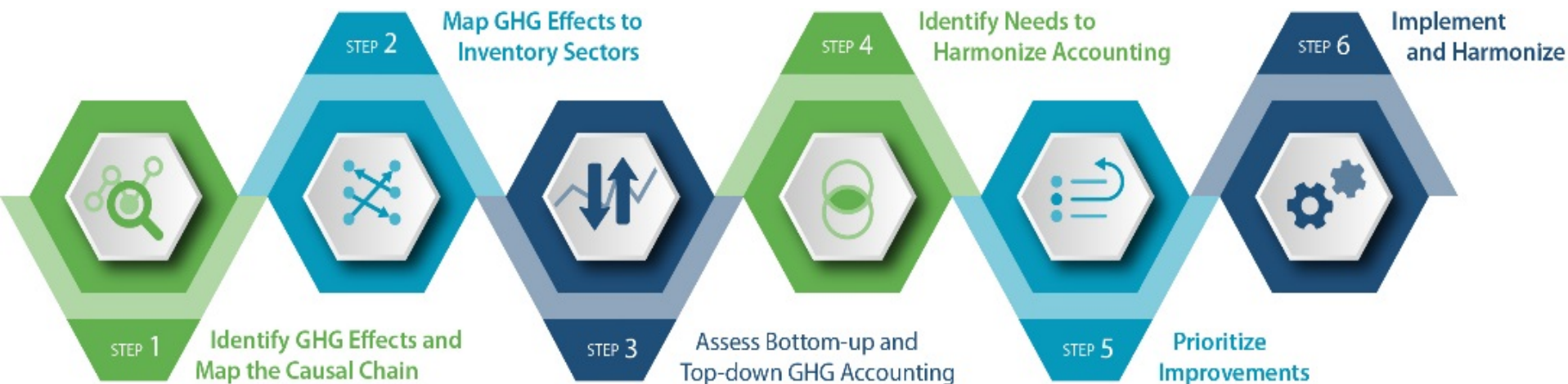
# SINGEI: RALI project



- Design the INGEI web platform
- MRV Harmonization approach
- Prototype (user experience and feedback)



# SINGEI: Six steps of the RALI GHG MRV Harmonization Approach

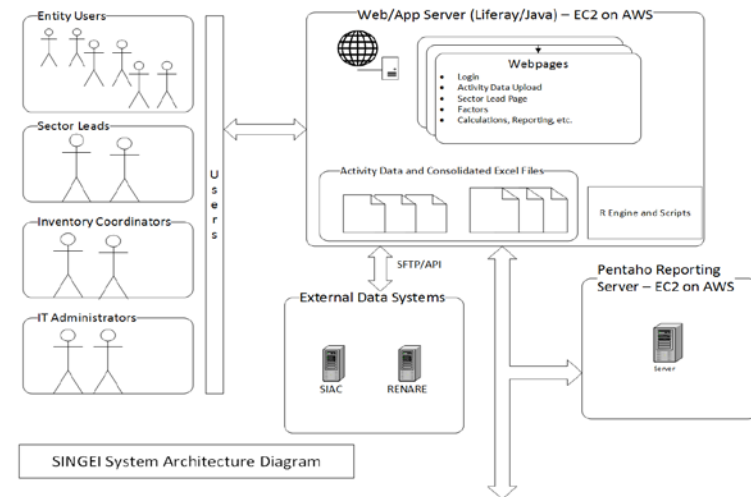






# SINGEI: Design the INGEI web platform

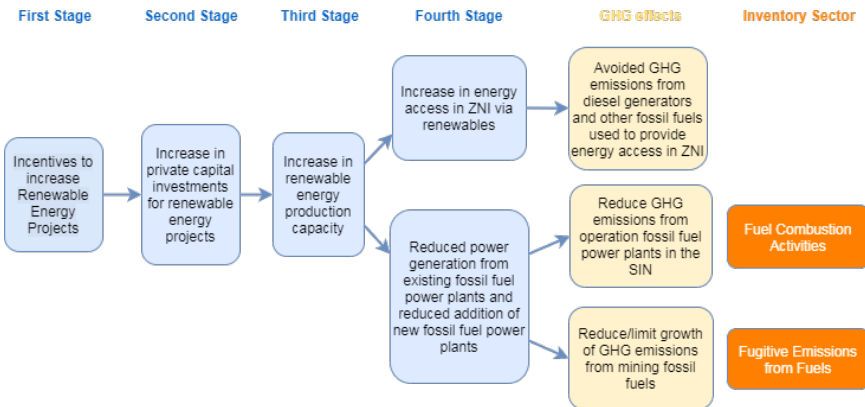
- Bilateral collaboration processes with strategic stakeholders in the INGEI elaboration
- Strength national capacities for biennial reports under the Paris Agreement
- Prototype tool for testing the end user experience



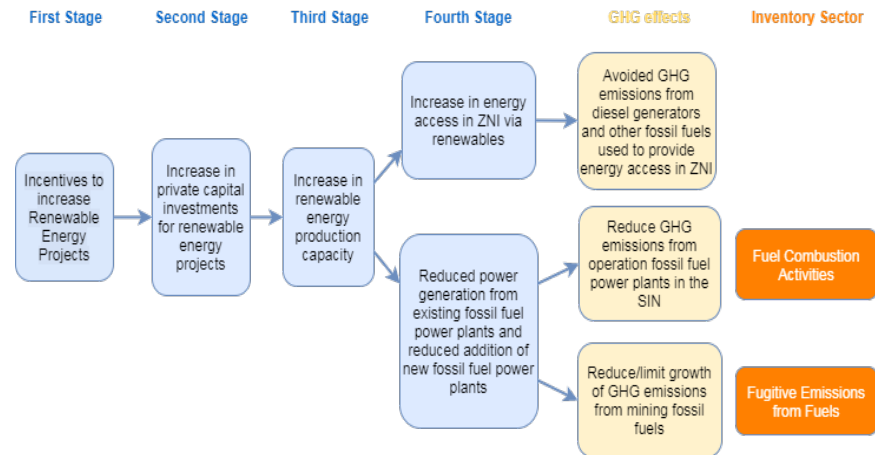


# SINGEI: 2 sectorial action pilots (STEPS 1-3)

## Harmonization Pilot 1: Livestock NAMA



## Harmonization Pilot 2: Renewable Energy Activities





# Bottom up – top down approaches

National GHG inventories



RENARE





# Thanks!



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## Marian Van Pelt

### RALI Project Manager

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# Overview of RALI/Colombia Activities

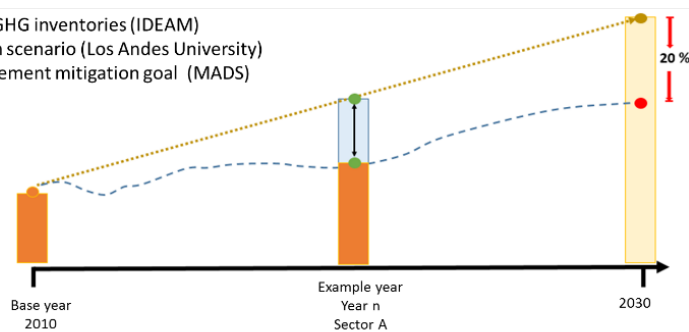
# RALI's Approach in Colombia

## Harmonize MRV

Ensure that reported inventory GHG emissions to the UNFCCC reflect MRV actions that have taken place

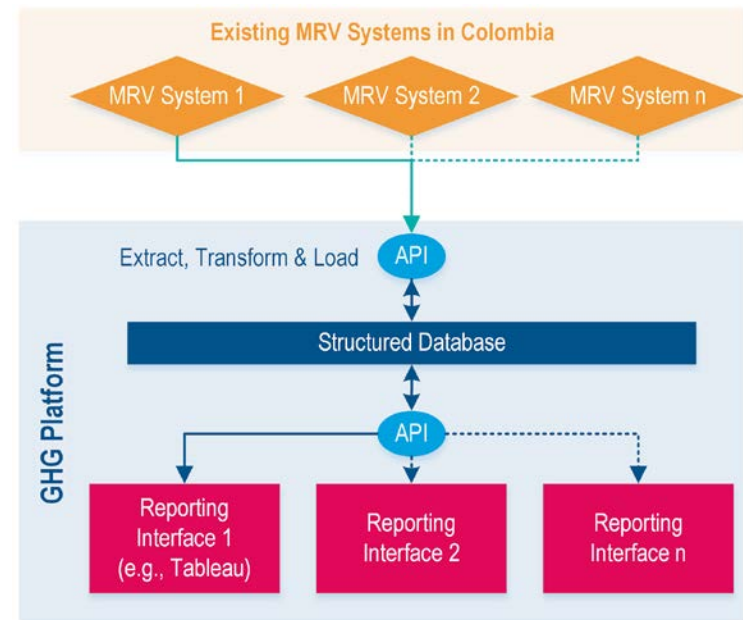


- National GHG inventories (IDEAM)
- Mitigation scenario (Los Andes University)
- Paris agreement mitigation goal (MADS)

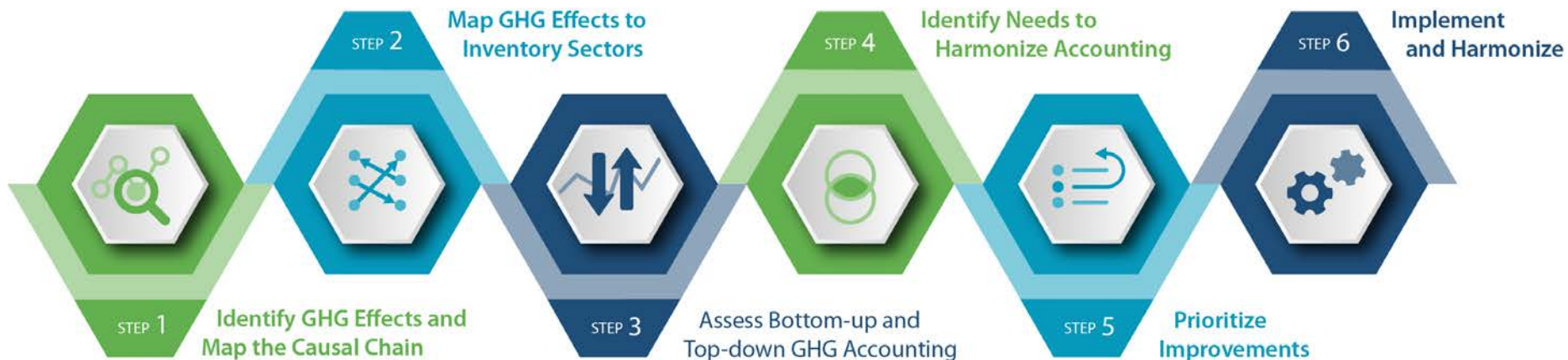


## Build SINGEI Prototype

Position IDEAM to efficiently prepare biennial inventories through increased automation



The USAID RALI project developed a six-step framework that countries can use to guide the harmonization of data from mitigation activities with the national GHG inventory.

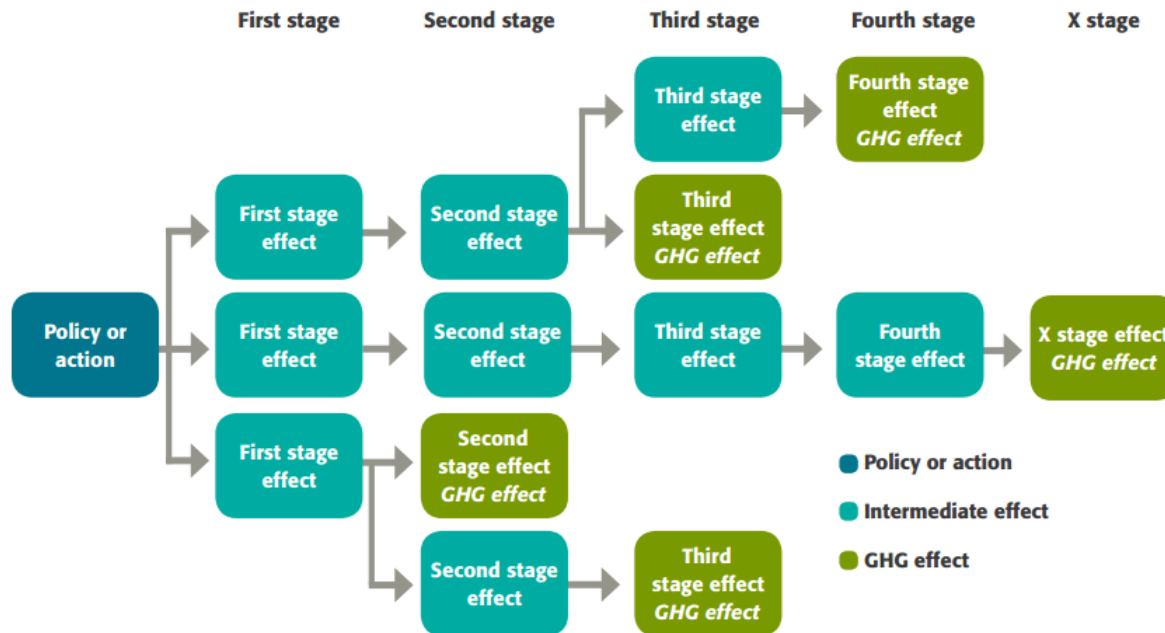






# Step I: Identify and Map GHG Effects

- Define the mitigation policy or action
- Map the causal chain of the policy outcomes and GHG effects

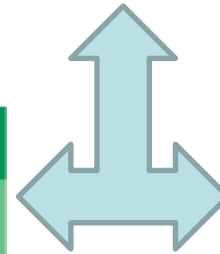
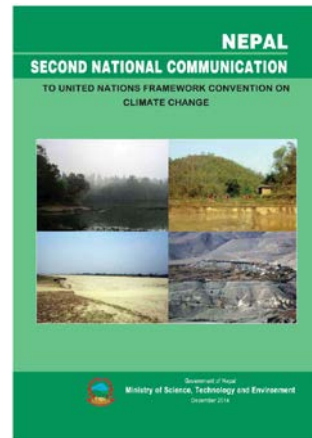


Source: GHG Protocol's *Policy and Action Standard*



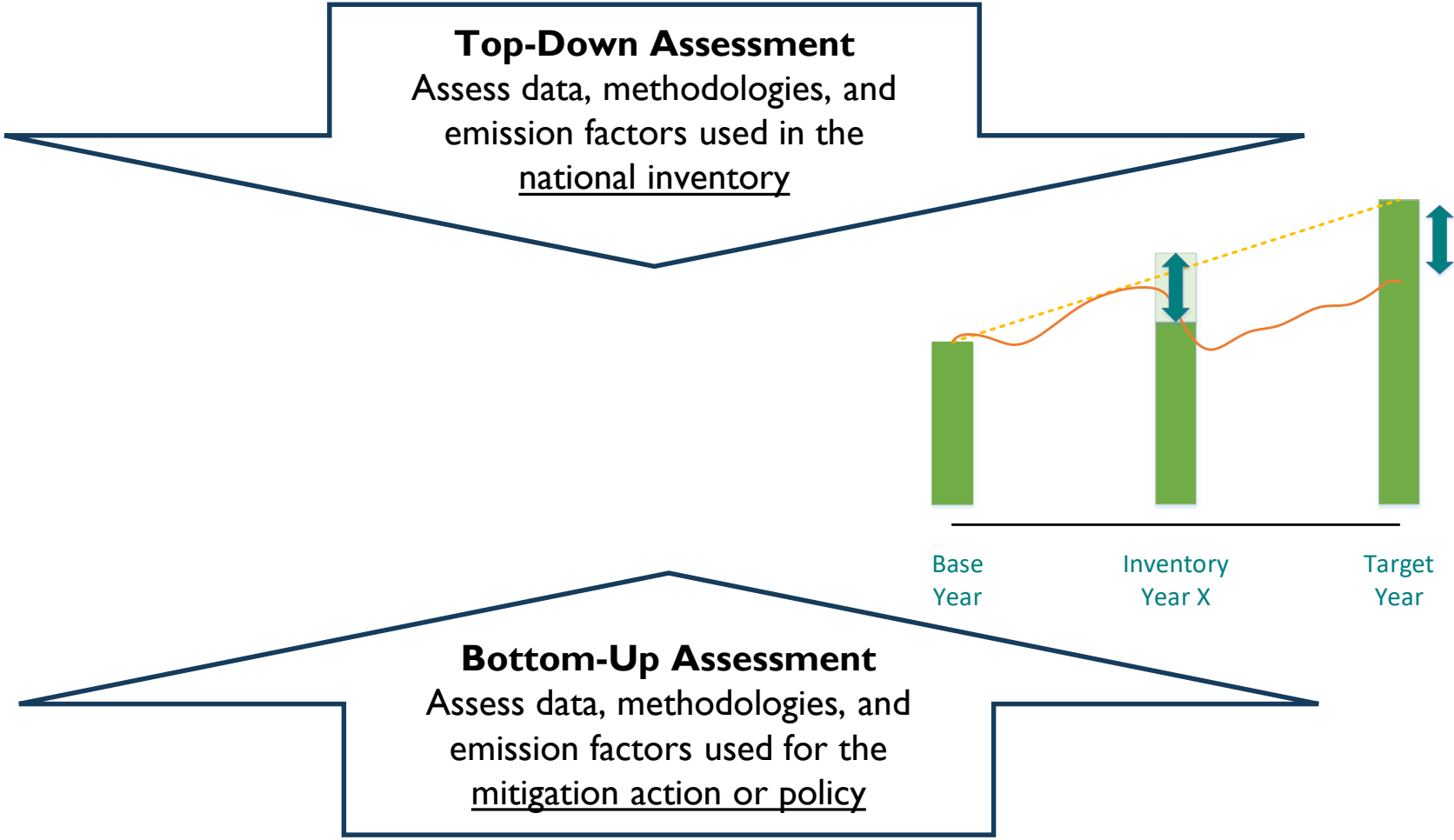
# Step 2: Map GHG Effects to Inventory

- Map GHG impacts from mitigation activity to standardized sectors and source categories from IPCC
- Identify which drivers of GHG emissions will be impacted by mitigation activity
  - E.g., “Activity will reduce fuel oil consumed in the residential sector”



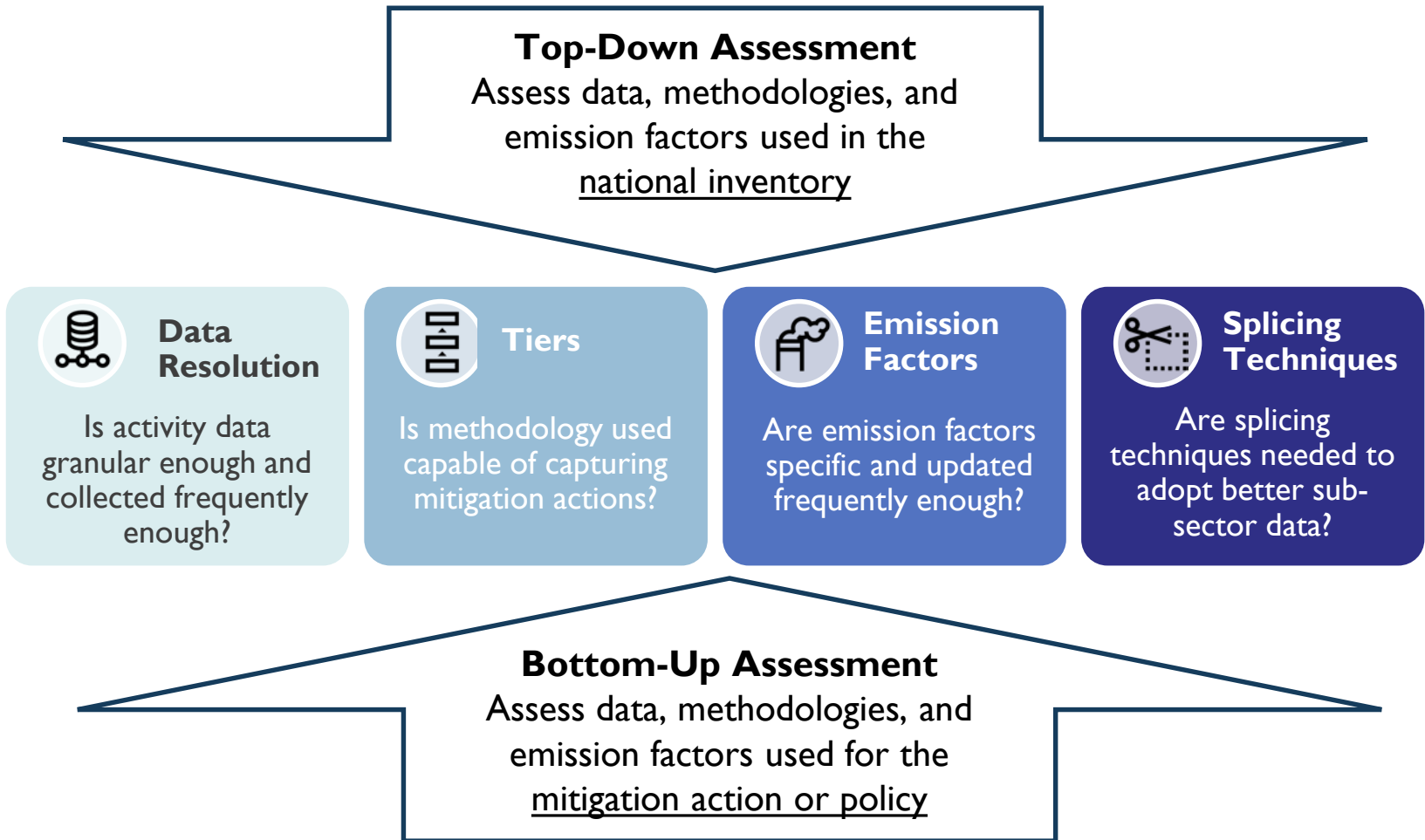


# Step 3: Bottom-Up / Top-Down MRV





# Step 4: Identify Needs to Harmonize





# Step 5: Prioritize Improvements

Prioritize improvements to inventory or mitigation activity MRV using a decision framework. Example:



**Highest priority:** AFOLU expected to play significant role in reaching NDC target



**Middle priority:** Energy results in significant emissions but projects are not yet defined



**Lowest priority:** Transportation already collects robust information annually at the municipal level



## Step 6: Implement and Harmonize

Work with project implementers, agencies, and other key stakeholders to modify current inventory and mitigation MRV systems to address gaps.

This could include:

- Defining additional data requirements
- Institutional arrangements
- Frequency/rigor of data collection
- Improving Tier of inventory methodologies
- Splicing subnational data with national data





Sistema Nacional de Inventarios de Gases de Efecto Invernadero

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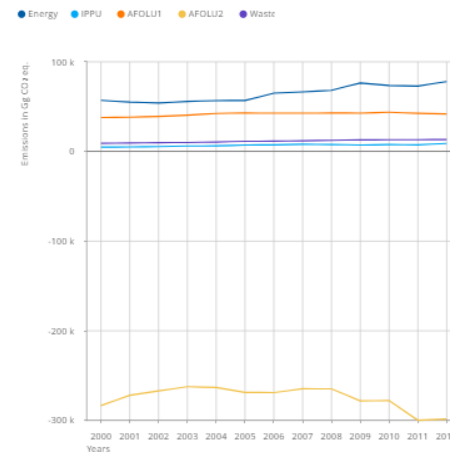
## Annual Emissions Report

Show 10 entries

Year	Energy Sector (Gg CO <sub>2</sub> eq.)	IPPU Sector (Gg CO <sub>2</sub> eq.)	AFOLU1 Sector (Gg CO <sub>2</sub> eq.)	AFOLU2 Sector (Gg CO <sub>2</sub> eq.)	Waste Sector (Gg CO <sub>2</sub> eq.)
2000	56,988.6	4,966.9	37,866.4	-283,487.6	9,034.1
2001	55,065.3	5,028.2	38,234.2	-272,033.7	9,438.6
2002	54,119.9	5,423.5	39,095.4	-267,168.4	9,774.7
2003	55,819.3	6,193.6	40,546.4	-262,460.0	10,059.6
2004	56,784.1	6,251.6	42,448.6	-263,301.9	10,467.5
2005	56,872.6	7,217.2	42,972.7	-268,806.1	11,409.2
2006	65,125.0	7,419.8	42,668.9	-269,022.8	11,490.2
2007	66,380.7	8,085.5	42,735.9	-264,704.2	11,913.6
2008	68,238.6	7,712.0	42,871.1	-264,859.7	12,493.2
2009	76,357.3	7,196.9	42,822.9	-278,274.1	12,879.9

Showing 1 to 10 of 13 entries

Previous 1 2 Next



# Questions?



# Next Steps

1. Respond to the GotoWebinar poll (see menu)
2. Find out more about the MRV Harmonization and USAID RALI activities

<https://www.climatelinks.org/projects/rali>

3. Contact us with questions!