

Modelling and Projections Programme (MPP)



Caribbean Cooperative
MRV HUB
Measurement Reporting & Verification

2023 GHG Mitigation Modelling Tools
Webinar Series

24th May to 28th June, 2023

Supported by:



Federal Ministry
for the Environment, Nature Conservation
and Nuclear Safety



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GLOBAL SUPPORT
PROGRAMME

based on a decision of the German Bundestag

The CCMRVH is part of the International Climate Initiative (IKI). The Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) supports this initiative on the basis of a decision adopted by the German Bundestag, with additional resources and technical support provided by the UNDP/UNEP Global Support Programme.

TOPICS

Overview of the Data Collection
Guidance Documents



Overview of the GACMO
Guidance Document



Overview of the LEAP Guidance
Document





What are Guidance Documents?

What are Guidance Documents?

Documents that are specifically created to help assist countries in their reporting requirements



The MRV Hub has recognised the need to prepare these documents which will guide countries in a simplified manner to complete reporting requirements whether it is in:

GHG
Inventories

Mitigation
Analysis

NDC Tracking

Support
Received

Why Data Collection Guidance Documents?

- Modelling allows analyst to use projections to assess potential scenarios impacts on near-term and long-term performance. Therefore, it is important that the data obtained is as accurate as possible.
- Data collection involves gathering and analysing data (as accurately as possible) from various sources to develop trends, probabilities and evaluate possible outcomes. Before starting data collection, it is important to identify the following:
 - What is the purpose of this assessment?
 - ✓ • What kind of data do you require to complete your assessment?
 - ✓ • Where can you find the data you require: source?
 - What methods and procedures will be used to collect, store, and process the data?

Data Collection Strategy

Data collection strategy should follow the principles of Transparency, Accuracy, Consistency, Completeness and Comparability (TACCC).

Data collections should be prioritized based on your scope.

Establish relationships with data providers (formal if possible), Remember this is not a "one-off" process.

Consider multiple sources of data: local, national, international, private, public.

Collect new data once available, "Always room for improvement"

Establish a process for archiving and storing data

What kind of Data are we looking for?

If datasets are not perfect, you can adapt the data to match your needs appropriately.



It is common practice to adapt or quality control data for use in a GHG inventory/GHG mitigation by:

Correcting data for calendar year use

Avoiding multi-year averages

Using “splicing” techniques to ensure time series consistency (example- extrapolation, interpolation)

Using regionally collected data in-country and aggregate to national level.

Using surrogate data to complete gaps

Which tool should be used to conduct your analysis

The answer to this question depends on what do you hope to gain from your analysis.



As a result, we recommend, using the guidance document on GHG Modelling tool selection, to identify the tool most suited to your needs and as such your guidance document.

The background is a solid blue color with several white, curved, overlapping lines that create a sense of depth and movement, resembling a stylized rainbow or a series of concentric arcs.

Overview of the GACMO Guidance Document

The GACMO Guidance Document Overview

- Instruction Sheet
 - Contains links to different sheets and checklist

This guidance document was developed to assist countries in their use of The Greenhouse Gas Abatement Cost Model (GACMO) as a modelling software and to identify data requirements. The guide is expected to help track data availability and input parameters for LEAP modelling, identify common locations where the data can be accessed and where applicable indicate commonly used parameters.

This **GACMO Data Collection Guidance Document** guide contains the following worksheets

Background	Information on the Caribbean Cooperative MRV Hub and it's purpose
Data Collection Strategy	Important Information on Data Collection Strategy
Overview of GACMO	An Overview of the GACMO Software
Energy-Fuel Data	A general checklist of the Energy-Fuel data requirements for GACMO
Electricity Data	A general checklist of the Electricity data requirements for GACMO
Cost Data	A general checklist of the Cost data requirements for GACMO



The GACMO Guidance Document Overview

Background

- Information on the MRV Hub and its purpose (can be used to quote the use of the document)


Information on Data Collection Strategy

- Information presented early on methods to begin data collection

Overview of GACMO

- An overview of the GACMO tool and its functions

The GACMO Guidance Document Overview

- Data Guidance Sheets
 - The input data necessary for GACMO is separated into three sheets
 - Energy – Fuel Data
 - All data related to the demand sectors and fuel data
 - Electricity Data
 - All data related to electricity generation
 - Cost Data
 - All data related to the cost of items
- 

The GACMO Guidance Document Overview

- Each sheet contains the following
 - A list of the data required in the section
 - The category, type of data and units
 - Possible Sources of the data
 - A counter to identify the needed data and any missing data

Availability of Data		
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Category	Sub- Category	Types of Data	Units	Data Available	Data Unavailable	Not Applicable	Possible Data Source	Alternative Data Sources
Banking Rates	Exchange Rate	Country specific rates	\$US/Currency	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Local Statistics Department/Central Banks/Finance Department	
	Discount rate		%	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Energy Prices	Crude Oil	Cost primary fuel used in the mitigation	\$US/bbl	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Local Statistics Department/ Fuel Companies/Finance	
	Natural Gas		\$US/GJ	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	Liquified Natural Gas (LNG)		\$US/MBTU	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	Coal		\$US/ton \$US/GJ	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		



Overview of the LEAP Guidance Document

The LEAP Guidance Document Overview

- Instruction Sheet
 - Contains links to different sheets and checklist

This guidance document was developed to assist countries in their use of Low Emission Analysis Platform (LEAP) as a modelling software and to identify data requirements. The guide is expected to help track data availability and input parameters for LEAP modelling, identify common locations where the data can be accessed and where applicable indicate commonly used parameters.

The **LEAP Data Collection Guidance Document** contains the following worksheets:

Background	Information on the Caribbean Cooperative MRV Hub and its purpose
Data Collection Strategy	Important Information on Data Collection Strategy
Overview of LEAP	An Overview of the LEAP Software
Key Assumptions	Checklist of General Data Requirements for Key Assumption and possible locations where the data is stored
Demand Data	Checklist of General Data Requirements for Demand Data and possible locations where the data is stored
Transformation Data	Checklist of General Data Requirements for Transformation Data and possible locations where the data is stored
Non Energy Data	Checklist of General Data Requirements for Non-Energy Data and possible locations where the data is stored

The LEAP Guidance Document Overview



Similar to the GACMO Data Collection Guidance Document, the LEAP Data collection Guidance Document contains the following:



Background

Information on the MRV Hub and its purpose
(can be used to quote the use of the document)



Information on Data Collection Strategy

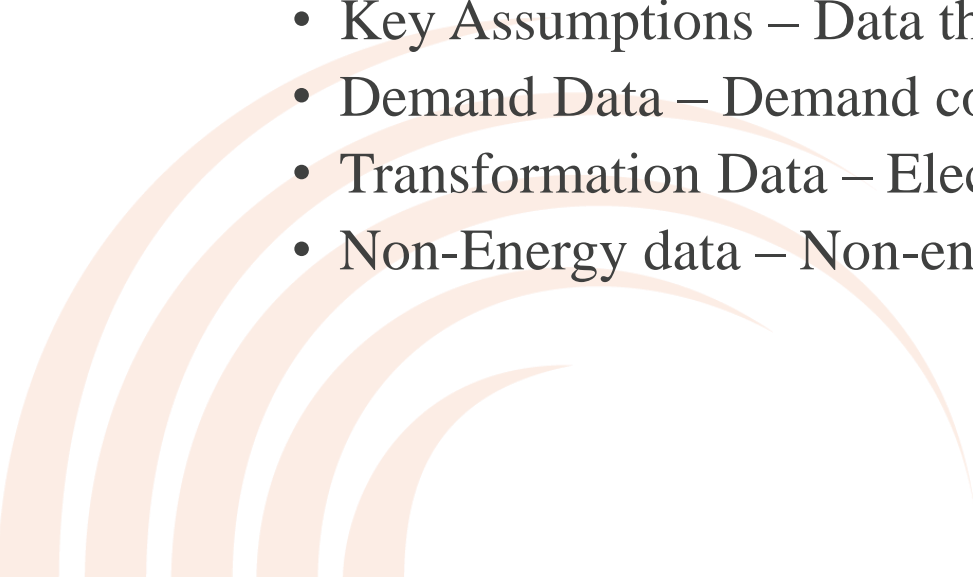
Information presented early on methods to begin data collection



Overview of LEAP

An overview of the LEAP tool and its functions

The LEAP Guidance Document Overview

- Data Guidance Sheets
 - The LEAP software is designed by the USER based on available data, therefore the data collection guidance document is not exhaustive but goes through some of the most common data requirements for the region
 - The input data necessary for LEAP is separated into four sheets
 - Key Assumptions – Data that can be used as drivers
 - Demand Data – Demand consumption Data
 - Transformation Data – Electricity Generation data
 - Non-Energy data – Non-energy Data (Forestry, Waste, and others)
- 

The LEAP Guidance Document Overview

- Each Sheet contains the following
 - A list of the data required in the section
 - The category, type of data and units
 - Possible Sources of the data
 - A counter to identify the availability of the data

Availability of Data
 0 of 16

Category	Sub-Category	Types of Data	Data		Possible Data Source	Alternative Data Sources
			Available	Unavailable		
Demographic	Population	Total Population	<input type="checkbox"/>	<input type="checkbox"/>	Local statistics division	
		Population per District/County	<input type="checkbox"/>	<input type="checkbox"/>	Local statistics division	
		Population per Gender	<input type="checkbox"/>	<input type="checkbox"/>	Local statistics division	
		Population growth rate	<input type="checkbox"/>	<input type="checkbox"/>	Local statistics division	
		Projected Population Growth Rate	<input type="checkbox"/>	<input type="checkbox"/>	Local statistics division	
		Projected Population	<input type="checkbox"/>	<input type="checkbox"/>	Local statistics division	
	Households	Household size	<input type="checkbox"/>	<input type="checkbox"/>	Local statistics division (Population & housing census)	

Important Notes

The Data collection Guidance Documents were developed based on the current version of the tools. As the new updates of the tools are developed, these data collection guidance documents will need to be updated.

It is important that if the documents are used to create models or conduct mitigation assessment then they referenced so that we can ensure that the documents are being used and continuing to spend time developing these documents can be seen as useful.

Questions?

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