Initiative for Climate Action Transparency
Antigua & Barbuda Project

LEAP Training Sessions (In-person) Training Report

7th August, 2023

Submitted to

The Government of Antigua & Barbuda

Prepared by

Caribbean Cooperative Measurement, Reporting & Verification Hub

DISCLAIMER

Prepared Under:

The Initiative for Climate Action Transparency (ICAT), supported by Austria, Canada, Germany, Italy, the Children's Investment Fund Foundation and the ClimateWorks Foundation.

CHILDREN'S INVESTMENT FUND FOUNDATION

MINISTERO DELLA TRANSIZIONE ECOLOGICA

climateworks FOUNDATION

Supported by:

Federal Foreign Office

on the basis of a decision by the German Bundestag

IKI INTERNATIONAL CLIMATE INITIATIVE

Federal Ministry
Republic of Austria
Climate Action, Environment,
Energy, Mobility,
Innovation and Technology

Environment and Climate Change Canada

Environnement et Changement climatique Canada

UNOPS

The ICAT project is managed by the United Nations Office for Project Services (UNOPS)

Contents

List of Tables and Figures

Acronyms

CCMRVH	Caribbean Cooperative Measurement Reporting and Verification Hub
DOE	Department of the Environment
EV	Electric Vehicle
GHG	Greenhouse Gas
ICAT	Initiative for Climate Action Transparency
LEAP	Low Emission Analysis Platform
NDC	Nationally Determined Contribution

Introduction

The Government of Antigua and Barbuda, through the Department of Environment (DOE), is currently undertaking the second phase of **The Initiative for Climate Action Transparency Project (ICAT): National Transport Electrification Impact Assessment**. ICAT seeks to provide guidance, capacity building and knowledge sharing in assessing policies and action plans for reducing, modelling and transparently reporting on greenhouse gases (GHG).

The DOE in collaboration with the Caribbean Cooperative Measurement, Reporting & Verification Hub (the "MRV Hub") seeks to establish a modelling framework to ensure that Antigua & Barbuda has the sustainable capacity to conduct GHG emissions mitigation and select SDG impact analysis of its electric mobility transition measures to support an effective national MRV/transparency system and measure the performance of the targeted climate transport policies and actions. The "MRV Hub" (www.mrvhub.org) is a unique, sustainable, and country-driven partnership designed to foster regional technical excellence and generate stronger policy-relevant carbon accounting.

In alignment with building Antigua and Barbuda's sustainable capacity to develop GHG emission projection and mitigation analysis modelling for their electric mobility transition, an in-person workshop was conducted to train stakeholders and build capacity on using the LEAP (Low Emission Analysis Platform) modelling software.

During these training sessions, LEAP's functionality was extensively explored, with a primary emphasis on key assumptions model development, encompassing baseline and mitigation scenarios. The sessions combined both theoretical discussions and practical guided exercises. Participants engaged in replicating the thought processes necessary for creating different models and comprehending their applicability to the national context with a focus on the transport sector, and electric vehicle (EV) targets. The capacity building workshop comprised of three-day training session on modelling using LEAP (Low Emission Analysis Platform).

Day 1 – Introduction to LEAP and Demand Analysis Model (July 10, 2023)

Day 2 – Transformation Analysis & GHG Mitigation Analysis & Exercise (July 11, 2023)

Day 3 – Transport Demand Analysis and Transport GHG Mitigation Analysis (July 12, 2023)

Participants

Stakeholders were identified by the Department of the Environment (DOE). These consisted of mainly public stakeholders from key institutions and departments that were expected to use the LEAP software for conducting mitigation analysis or projections for the transport sector or using

involved in developing the model. They gained valuable insights into decision-making processes, understanding national contexts, formulating assumptions, identifying the data necessary for building a model, and understanding the role of LEAP during the decision-making process.

Summary of the sessions and materials provided

The training was held in person at the Department of Environment Conference Room in St. Johns, Antigua and Barbuda from July 10-12, 2023. Each session was facilitated by Ms. Benise Joseph, the lead modelling expert and trainer, as well as by Mrs. Brittany Meighan Rancharan, co-facilitator and trainer, both from the Caribbean Cooperative Measurement Reporting and Verification Hub (CCMRVH).

During the three-day LEAP training, participants were taken through a comprehensive overview of the LEAP software and its functionalities, with a focus on building mitigation models and conducting analysis to support decision-making for Antigua and Barbuda's energy and transport-related climate targets.

Day 1: The first day commenced with an overview of workshop expectations from Ms. Anik Jarvis of the Department of the Environment, followed by participant introductions, scene setting and logistics, and software set-up. The day's objectives included providing an introduction to LEAP software and the "key assumptions" and "historical and projections branches" necessary for building a model, as well as the data required to input into these. They gained insights into various methods for importing, exporting, and updating data within the LEAP model. Participants were guided through the fundamentals of the key assumptions and drivers in the LEAP software. Participants focused on inputting demographic and economic data, which was the first exercise.

Day 2: On the second day, the training continued with an overview of day 1 activities and practical exercises on understanding demand analysis for the second exercise. The second exercise focused on populating data available for the residential sector. The afternoon session covered the theory aspect of Transformation Analysis, understanding the production of energy to meet the demand. This also involved concepts on transitioning from traditional fossil fuel-based energy sources to renewable energy sources, assessing the implications of shifting energy consumption patterns to reduce greenhouse gas emissions. Participants delved into the basics of transformation and resource analysis within LEAP and the completion of hands-on training exercises.

Day 3: The final day focused on the transport sector, understanding the modelling of transport demand and learning concepts of mitigation analysis using LEAP specifically exploring transport-specific mitigation scenarios centered around the transition to electric vehicles and other mitigation scenarios such as energy efficiency measures and introduction of renewable energy technology. Participants engaged in hands-on exercises, analysing, and inputting proposed mitigation actions into baseline and various mitigation scenarios linked to policy targets. Emphasis was placed on the significance of projecting GHG emissions under various mitigation scenarios. Moreover, participants were taught how to interpret the results generated by a completed LEAP model effectively. The

training concluded with practical guidance on analyzing and exporting LEAP results to support policy-making decisions and track national targets such as Nationally Determined Contributions (NDCs). The closing remarks were made by the Department of the Environment and the virtual distribution of certificates to all participants.

Outcomes

A total of sixteen (16) participants attended the training session throughout the three days. The participants engaged actively throughout the theory sessions and practical hands-on sessions. Further practice was encouraged after the training session to become better acquainted with the software. The participants demonstrated eagerness and progressive confidence in operating the software and building models on their own, and more accurately by the last day of the training.

Many participants were able to correlate the work in training sessions to their current workplaces for data requests and data storage. The training stimulated valuable questions and discussions on improvement in data collection, storage, and the LEAP software.

Results of the feedback form

Feedback forms were provided to participants to assess the usefulness of the workshop by ICAT. In addition to providing their institution, participants were asked to respond to questions and/or statements to assess the following categories:

- Knowledge before training
- Knowledge after training
- Key Takeaways
- Overall workshop rating

The responses for the entirety of the training were positive responses across all sections:

Survey completion rate:

37.5% survey completion, with a total of 6 responses received.

Overall training rating:

Very Good 66.7% and Good 33.3%

Knowledge before the training was:

- Very Poor- 50%
- Poor – 16.6%
- Average – 16.6%
- Good - 16.6%

Knowledge after the training was significantly improved:

- Average – 18%
- Good – 80%

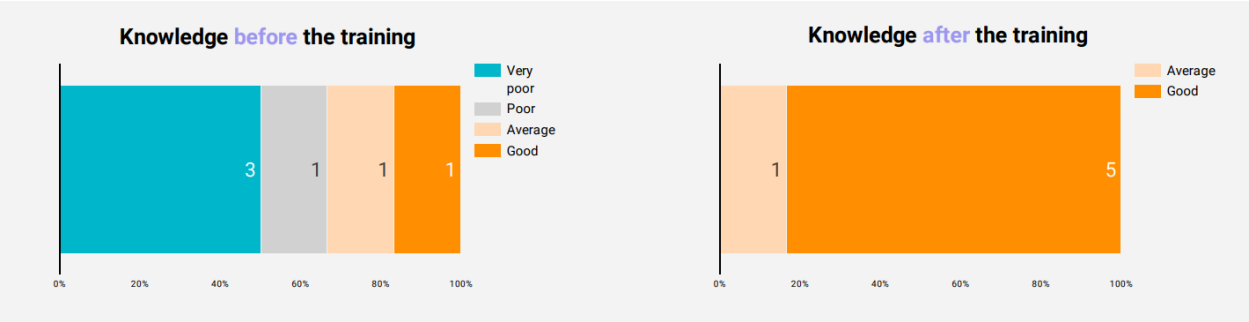

Figure 1:Figure showing knowledge before and after training

Key Takeaways:

Participants acquired valuable skills in utilizing a broad range of functions available in LEAP, which enhanced their ability to perform analyses and model various scenarios effectively. Additionally, they learned about the data requirements for conducting meaningful analyses that could support different policies that may arise. Participants also indicated that they received critical knowledge on the importance of successfully mitigating climate change.

Knowledge and skills acquired to put into practice:

Participants also noted the usefulness of the tool to validate the effectiveness of implementing certain policies (i.e. NDC targets) and the ability to guide national interventions in achieving these targets at appropriate time frames. Although some institutions may regularly utilize the software to model scenarios, there is a broader understanding of the data requirements and implications of national climate goal setting.

All participants felt that their new knowledge would be applied in some way, from some small degree (50%), regularly (35%) to daily (15%).

Improvements identified:

60% of the participants who completed the survey indicated that there was room for improvement in the following aspects:

- More time for training sessions, lengthier sessions, or increased days
- More engagement of all participants during the hands-on training exercises

Summary

The participants' overall feedback on the in-person training was positive. Throughout the training, participants remained actively engaged, contributing valuable insights, and posing pertinent questions during the guided exercises and instructional sessions. The training team expressed immense satisfaction with the feedback received and intends to incorporate this valuable input into future training sessions delivered in person. Annex 1 contains photos from the live training sessions.

The team extends its gratitude to the Department of the Environment for their assistance in coordinating this workshop.

Annexes

- **Annexe 1: Photo of Participants**

- **Annex 2**: **Workshop Agenda**

Initiative for Climate Action Transparency

Antigua & Barbuda Project

LEAP Training Sessions (In-person)

Agenda

10-12th July, 2023

Introduction

The Government of Antigua and Barbuda, through the Department of Environment (DOE), is currently undertaking the second phase of **The Initiative for Climate Action Transparency Project (ICAT): National Transport Electrification Impact Assessment**. ICAT seeks to provide guidance, capacity building and knowledge sharing in assessing policies and action plans for reducing, modelling and transparently reporting on greenhouse gases (GHG).

The DOE in collaboration with the Caribbean Cooperative Measurement, Reporting & Verification Hub (the "MRV Hub") seeks to establish a modelling framework to ensure that Antigua & Barbuda has the sustainable capacity to conduct GHG emissions mitigation and select SDG impact analysis of its electric mobility transition measures to support an effective national MRV/transparency system and measure the performance of the targeted climate transport policies and actions. The "MRV Hub" (www.mrvhub.org) is a unique, sustainable, and country-driven partnership designed to foster regional technical excellence and generate stronger policy-relevant carbon accounting.

The capacity building workshop is comprised of a three-day training session on modelling using LEAP (Low Emission Analysis Platform).

As part of the training, participants are expected to complete assignments and assessments. Trainers will be available for one-hour sessions after the scheduled time for further question and answer sessions, which will be optional.

Objective of the workshop:

The goal of these training sessions is to achieve training on how to use LEAP modelling applications for transport mitigation assessments.

Target Learners: Stakeholders who are responsible for conducting mitigation analysis or projections for the transport sector or using the LEAP modelling tools. Participants are expected to have a basic familiarity with concepts related to energy statistics and greenhouse gas (GHG) emissions accounting.

Day 1		
Session 1	**Opening & Workshop Objectives**	**Facilitator**
9:45-10:00	**Registration**	
10:00 - 10:10	Welcome, Overview of objectives and logistics set-up	
Session 2	**LEAP Introduction**	
10:20 – 11:20	Introduction to LEAP • Understanding the key characteristics of the LEAP modelling tool • Understanding the Structure of a representative LEAP Analysis	
11:20 -11:25	Question and Answer Session	
Session 3	**Demand Analysis**	
11:25 – 12:25	Demand Analysis	
12:25 - 12:30	Question and Answer Session	
12:30 – 13:30	Lunch	
Session 4	**Practice Session**	
13:30 - 14:30	Overview of Exercises – Practice & Assessment	
14:30 – 14:35	Question and Answer Session	
14:35 -15:00	Review, Next Steps, Stakeholder Feedback	
Session 5	**Self – Paced Practice**	
Optional 15:00 -16:00	Self-paced work on Assignments (Homework)	

Day 2		
Session 1	**Opening & Workshop Objectives**	**Facilitator**
10:00 - 10:30	Welcome and RECAP	
Session 2	**Exercise 2 – Demand Analysis**	
10:30 – 11:30	Exercise 2	
11:30 -11:35	Break	
Session 3	**Transformation & Mitigation Analysis**	
11:25 – 12:25	Transformation & GHG Mitigation Analysis	
12:25 - 12:30	Question and Answer Session	
12:30 – 13:30	Lunch	
Session 4	**Practice Session**	
13:30 - 14:30	Overview of Exercises – Practice & Assessment	
14:30 – 14:35	Question and Answer Session	
14:35 -15:00	Review, Next Steps, Stakeholder Feedback	
Session 5	**Self – Paced Practice**	
Optional 15:00 -16:00	Self-paced work on Assignments (Homework)	

DAY 3		
Session 1	**Opening & Workshop Objectives**	**Facilitator**
10:00 - 10:30	Welcome and RECAP	
Session 2	**Demand Analysis Transport Sector**	
10:30 – 11:30	Demand Analysis Transport Sector	
11:30 -11:35	Question and Answer Session	
Session 3	**Mitigation Analysis Transport Sector**	
11:25 – 12:25	Using LEAP for GHG Mitigation Analysis in Transport Sector	
12:25 - 12:30	Question and Answer Session	
12:30 – 13:30	Lunch	
Session 4	**Practice Session**	
13:30 - 14:30	Overview of Exercises – Practice & Assessment	
14:30 – 14:35	Question and Answer Session	
14:35 -15:00	Review, Next Steps, Stakeholder Feedback	
Session 5	**Self – Paced Practice**	
Optional 15:00 -16:00	Self-paced work on Assignments (Homework)	

- **Annex 3: Training Materials**

The training materials can be accessed via this link provided by the Department of Environment

One Drive Folder