INITIATIVE FOR CLIMATE ACTION TRANSPARENCY (ICAT) PHASE 2 PROJECT:

NATIONAL TRANSPORT ELECTRIFICATION IMPACT ASSESSMENT

TRANSPORT IMPLEMENTATION PROJECT ALIGNMENT WORKSHOP

13TH JULY 2023

WORKSHOP REPORT

DISCLAIMER

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Table of Contents

Acronyms and Abbreviations

ABTB	Antigua & Barbuda Transport Board
ABWREC	Antigua & Barbuda Waste Recycling Corporation
BUR	Biennial Update Report
CAEP	Climate Action Enhancement Package
CBH	Central Board of Health
CBIT	Capacity Building Initiative for Transparency
CCMRVH	Caribbean Cooperative Measurement, Reporting and Verification Hub
DMU	Monitoring, Evaluation and Data Management Unit
DOE	Department of Environment
EPMA	Environmental Protection and Management Act
EV	Electric Vehicle
GACMO	Greenhouse Gas Abatement Cost Model
GEF	Global Environment Facility
GGGI	Global Green Growth Institute
GHG	Greenhouse Gas
GHGMI	Greenhouse Gas Management Institute
GREET	Greenhouse gases, Regulated Emissions and Energy Use in Technology
ICAT	Initiative for Climate Action Transparency
ICE	Internal Combustion Engine
LDV	Light Duty Vehicle
LEAP	Low Emissions Analysis Platform
MRV	Monitoring, Reporting and Verification
NC	National Communications
NDC	National Determined Contribution
NGO	Non-Governmental Organization
NSWMA	National Solid Waste Management Authority
SDG	Sustainable Development Goal
SIDS	Small Island Developing States
SLIM	Sustainable Low Emission Island Mobility
TraCAD	Transport Climate Action Data Tool
TRACE	Transport Sector Climate Action Co-Benefit Evaluation Tool
UNFCCC	United Nations Framework Convention on Climate Change
UNOPS	United Nations Office for Project Services
WIOC	West Indies Oil Company

Introduction

The Initiative for Climate Action Transparency (ICAT) aims to help countries better assess the impacts of their climate policies and actions and fulfil their transparency commitments. It does this by increasing the overall transparency capacities of countries, including the capacity to assess the contribution of climate policies and actions on countries' development objectives, and providing appropriate methodological information and tools to support evidence-based policymaking. ICAT's innovative approach is to integrate these two aspects.

Antigua & Barbuda, a sovereign small island developing state (SIDS) in the Eastern Caribbean, has successfully completed a first phase ICAT project and is now embarking on a Phase II project. This first phase project produced national capacities for economy-wide GHG mitigation modelling using the Greenhouse Gas Abatement Cost Model (GACMO) and Low Emissions Analysis Platform (LEAP) modelling frameworks.

Emissions from electric power generation, which previously accounted for the largest portion of the energy sector, has now been surpassed by transport, which is dominated by on-road mobile. The latest draft inventory report for 2016 to 2019 indicates that the transport sector accounts for more than 50% of the total national GHG emissions. The transport subsector relies mainly on imported petroleum-based fuels (i.e., petrol/diesel for vehicles).

With transport dominating the energy sector, the ICAT Phase 2 (ICAT PII) project will be completing a national transport electrification impact assessment to determine how electric mobility interventions and policies will affect overall reduction of Greenhouse Gas (GHG) emissions by the country. Successful implementation of this project will depend on inclusion, commitment and collaboration from key stakeholders. In consideration, the project team hosted a Transport Implementation Project Alignment Workshop on 13th July 2023 to facilitate discussions with various stakeholders and ensure that project outputs would be in alignment with the efforts and goals of their organisations. Stakeholders from both the public and private sector attended the workshop and were engaged in fruitful discussions. A list of the stakeholders that attended can be found in Annex 2.

Welcome

The proceedings of the meeting were facilitated by Jaabari Reynolds, Environmental Information Systems Consultant at the DOE. Mr. Reynolds welcomed participants present onsite and online, explained the proceedings of the sessions, and initiated a round of introductions.

Presentations

ICAT PII Project Overview

A brief overview of the ICAT PII Project was presented by Oraine Nurse of the National Coordination Team (NCT).

In summary, Mr. Nurse spoke on the background of the project including the project donor, project timeline and first phase of the Antigua and Barbuda ICAT project which provided the foundation for this second phase. He continued with an outline of the project objectives emphasizing that potential GHG emissions avoided would be analysed, using the previously selected Transport Climate Action Data (TraCAD) and LEAP modelling tools, based on different projects and policies being implemented or intended to be implement by the country. Mr. Nurse also made clear that an important aspect of the project is capacity building to allow for continuous monitoring and analysis of impacts beyond the project.

Increased capacity within the country for mitigation modelling and assessment of electric mobility measures was listed as an expected outcome of the project, along with accurate visualisations and data to help inform policy makers, and support evidence-based policy and mobilization of finance for electric mobility. Mr. Nurse then identified the project activities which have been completed to date, and the activities that will be addressed next, in particular, the draft electric mobility transition scenario impact assessment report and fully elaborated models. He, then, briefly spoke about collaboration with the Sustainable Low Emission Island Mobility (SLIM) project and the risks which were identified during project development.

Table 1: Project risks and mitigation strategies

Risk	Mitigation Strategy
Staff turnover, Staff availability and interest	Knowledge management will play a key role and mechanisms will be in place to support necessary knowledge transfer. Engagement with national consultants with permanent national/regional presence for ongoing analytical support will be prioritised.
Identifying qualified technical experts	Advanced training will be provided through the project
Untimely responses from data providers	Proactive outreach through multiple channels will be utilized to encourage responses
High Impact weather/climatic events	Distribute team working on project across multiple locations in Caribbean region

SLIM Project Overview

An overview of the SLIM project was presented next by Project Coordinator - Melissa LeBlanc. She opened with a few details about the project's background and emphasized that the general aim of the project is to facilitate the transition to electric vehicles in Antigua and Barbuda. Next, she briefly described the four project components.

For Component 1, Ms. LeBlanc highlighted Output 1.2 which is most aligned with the ICAT PII project activities. Here, two fleet electrification feasibility analyses should be completed. The first has been completed and focused on the cost of the overall transition to electric vehicles in the country including the renewable energy resources needed for the transition. The second, which is underway, will focus on the government fleet and which vehicles are suitable for transition at this time. The outputs of the ICAT PII will allow for many of these analyses to be completed in-house through the capacity building efforts.

Additionally, Ms. LeBlanc highlighted Component 4 and the need to understand and quantify the extent of derelict vehicles in the country in terms of all aspects of the derelict vehicle problem and

the scale so that suitable disposal methods can be used when considering scrap metaling and any other recycling of resources. All components are summarized below.

- ***Component 1*** will engage stakeholders about the reports being completed and the intended changes to gauge responses as well as build capacity; produce feasibility studies; produce a national development plan; develop a communication strategy for engaging the general public; and provide a public information platform.
- ***Component 2*** the purchase of EVs; purchase and installation of the solar infrastructure; and use and generation of data from EVs.
- ***Component 3*** will include the development of a grid-interactive electric vehicle charging network and development of standards and policies.
- ***Component 4*** will develop standards and policy frameworks for protocols for sustainable reuse, recycling, and disposal of used conventional and electric vehicles and EV batteries.

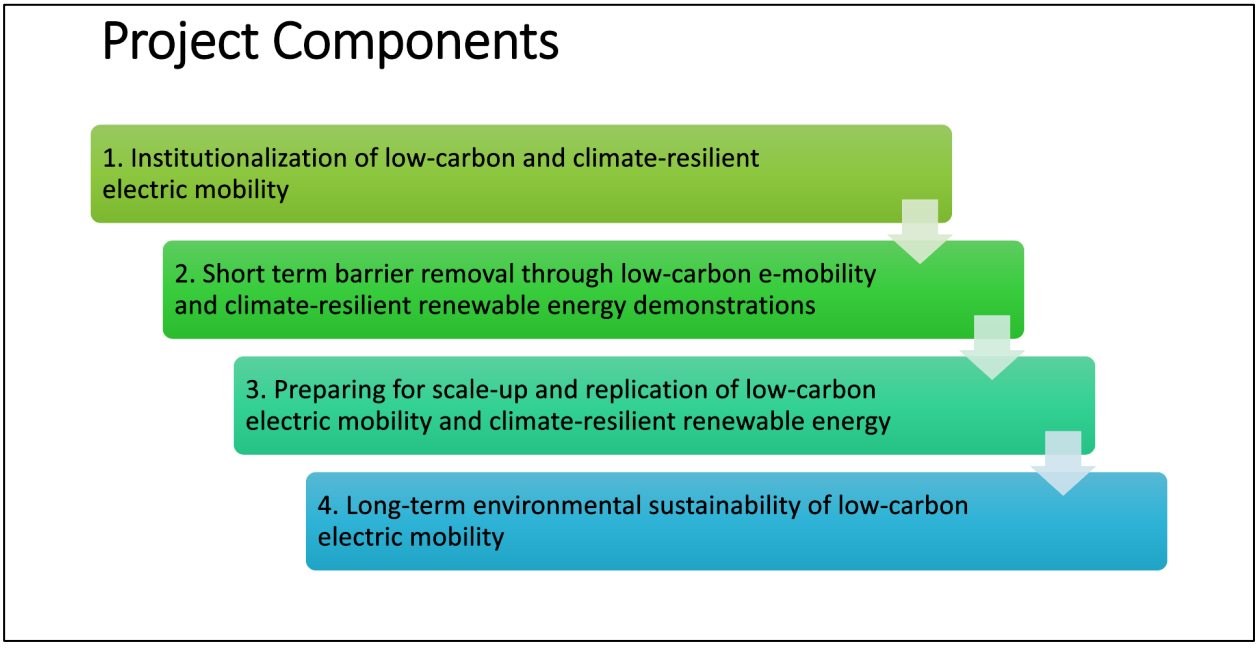

Figure 1. SLIM Project Components

Following the presentation, Stanley Barreto, CEO and Project Engineer at MegaPower Antigua asked if all intended actions toward the NDC targets would be completed under the SLIM project and Ms. LeBlanc responded in the negative, noting that the SLIM project is "ushering" the process along. She continued that most of the NDC targets are conditional and therefore dependent on availability of financing, but importantly, on the global stage more ambitious targets are the targets

that attract and/or access more funding options. Mr. Barreto followed up with an enquiry about a timetable indicating training of personnel regarding waste disposal and generally the differences between ICE vehicles and EVs, as the transition takes place. Ms. LeBlanc indicated that the National Renewable Energy Lab (NREL) is currently onboard and will be working on curriculum development which will be paired with the GCF Build project along with other projects that will focus on just transition of the work force.

Discussion

Current Project Alignment

Benise Joseph, Senior Programme Associate at the CCMRVH and Transport Modelling Developer on ICAT PII, led the stakeholder discussions. For the first round, she invited each of the stakeholders in the room to speak about plans within their organisations that may be aligned with either the ICAT PII or SLIM projects. First to share was Shemrick Rodney of the West Indies Oil Company (WIOC). He noted that the transition to renewable energy directly impacts the core business of the company and that they are still in the infancy stage regarding the direction in which they are heading. The company has a Memorandum of Understanding and works closely with the DOE, supporting a few of the projects being implemented including the SLIM project. Internally, the transport sector makes up more than a quarter of petroleum product sales, they are building an understanding of how to pursue the transition from a business perspective to remain a revenue-generating company and seeking out opportunities for a practical transition.

Next, Dwight Laviscount spoke about some of the plans that the Ministry of Energy is undertaking. First, is the updating of the Energy Policy which encompasses many of the aspects already discussed and is also aligned, to an extent, with the utility company to embrace more energy efficiency and renewable energy options – in particular, upgrading of the infrastructure. The focus has mainly been energy efficiency in the past due to the difficulties associated with renewable energy. Currently, funding is the main issue that the Ministry faces. He also identified that policy is needed to incentivise people to move forward with joining the transition which could be as simple as removing duties on renewable energy items. Benise followed up with questions about the progress made with the Energy Policy and the length of time it covers. Dwight responded that

it is now at the ministerial level as the technical work has been completed but he anticipates ratification before the end of this year and that it's a 10-year policy that would begin in 2023.

Bobby Emmanuel of Hadeed Motors, Ltd was the next to contribute to the discussion. He opened by noting that Hadeed Motors is an importer and would therefore be on the backend of the transition to electric mobility. All measures would need to be in place before the company can "fit in". Over the last five years, the company has been exploring electric vehicle options for import, but clear policy is needed which would incentivise the consumer and expose them to the functionality of EVs and allow interaction. It is a desire of the company to move in that direction but due to the documentation deficiency, they will likely start with hybrids. The moving target year for electrification also affects the eagerness of Hadeed Motors to make that change.

Tracelyn Joseph, Senior Statistician at the Statistics Division, was the next participant invited to share how their plans are aligned with the two projects. She listed a lack of synergy between the Statistics Division and stakeholders as a hindrance to production of the best possible outputs. This is not for lack of effort but due to some agencies' reluctancy to share data. Insufficient human and financial resource also play a role. However, Ms. Joseph also landed on the topic of policy, and need for certain policies to be in place for the Statistics Division to be able to execute its mandate. She noted that, with 2030 fast approaching, data collection is important for filling data gaps as well as reporting on SDGs. She closed by stating that data collected and/or produced from both ICAT PII and SLIM will directly feed into the SDGs and other environmental indicators.

The private sector was also represented at the workshop and Stanley Barreto of MegaPower Antigua, the sole EV dealership in the country is currently partnered with the SLIM project team as a technological provider to assist in successfully implementing that project. He also offered his thoughts. The company is very eager for the transition to take place and are pro-data sharing because of the importance that data availability will play in propelling progress. The company continues to participate in discussions of this nature because they, too, want to see policy gazetted and implemented. Without proper policy, the company is not able to influence electric mobility in the country to the greatest potential.

Speaking on behalf of the Antigua and Barbuda Transport Board (ABTB) was Linden Joseph, an administrative officer in the Board's data unit. The ABTB is willing to share data with stakeholders but have difficulty in doing so in a timely manner due to outdated systems being used for data management. Files need to be digitised and the system needs modernisation. They have identified an awareness gap in the general population regarding projects within the transport sector, and reductions on electric vehicle importation and electric vehicles themselves. As such, the ABTB develops campaigns to help raise awareness on the subject. These awareness campaigns allow the public to see that there are electric vehicles on island which helps to shape the mindset of acquisition as more realistic. Additionally, the sentiments of requiring policy were echoed. He noted that although duties are removed from EVs when imported, similar duties apply to ICE vehicles so economically, persons will always lean toward the more affordable option. Following his contribution, Benise asked if there was a system in place for recording and distinguishing EVs from ICE vehicles and he replied in the negative. Mr. Laviscount suggested that a special license plate be implemented for EVs to attract more interest.

The final stakeholder to share during this round of discussion was Ellorna Thibou, Manager at TOT Heavy Duty Vehicles (scrappage) – a company which works with the exportation of scrappage from derelict vehicles. She first provided some background information about the company's operations which include collection of vehicles, storage near the Cooks Landfill boundary and stripping of the vehicles for the scrap metal. The COVID-19 pandemic brought operations to a halt but in collaboration with the government, they are seeking to restart before the end of year. Benise questioned Ms. Thibou about data availability on the scrappage that is collected and exported, and what proportion of the vehicle is scrapped versus being unusable and being sent to the landfill. Ms. Thibou indicated that there is no data availability, but she is willing to learn more about the process. She continued that roughly 90% of the vehicle is scrapped with the remaining 10% being sent to the landfill.

Potential Project Alignment

After the conclusion of the first discussion segment, Benise introduced the next session which would focus on potential ways in which these agencies could implement new approaches that might align with the electric mobility targets of the country. She kindled thought among the group with exploration of the opportunity to reuse batteries which have been deemed no longer useful in

cars. She also circled back to the need for data coming out of the ABTB and Mr. Laviscount's suggestion of specialised license plates. Mr. Linden Joseph provided a response to the license plate suggestion by noting that a mock-up for a specialised plate had been completed in an effort to improve efficiencies within the current system. However, this is still in the infancy stage, a proposal has been submitted and will need to be approved by the Board before it can be placed before the Cabinet for final approval. This is one of the ways that they are actively trying to improve functionality of the data unit within its present confines. Benise further probed about the availability of disaggregated data in terms of gasoline versus diesel versus electric and Mr. Joseph confirmed that that data is available. Tracelyn Joseph of the Statistics Division encouraged the ABTB stakeholders to take this discussion back to their superiors to stress the need for change. She added that the team could proactively create a simple template and begin organising the data as best as possible to pre-empt future difficulties upon request of data and advised that they include schools in their campaigning to raise awareness.

Mr. Laviscount then inquired about the charges incurred for purchase/import of an electric vehicle, whether by weight or by a nominal fee, and Mr. Barreto stated that it is currently being charged by weight. Mr. Laviscount further questioned about the comparative weight of an EV against the engine size of an ICE vehicle. Mr. Barreto shared that he has observed over time that licensing of the MG SUV is comparable to a Hyundai Tucson or Kia Sportage because they all fall into a similar weight range. Mr. Laviscount further suggested the introduction of a fee associated with ICE vehicles to incentivize EV purchase. Mr. Barreto identified that an emission fee is a possible avenue which is what occurs in developed countries like Japan and triggers the influx of second-hand vehicles into countries like Antigua and Barbuda. He commented on the popularity and significant revenue stream of specialised license plates and indicated a willingness to partner with ABTB to introduce that for EVs. He continued with reference to Benise's comment about the opportunity available for reusing old EV batteries and noted that MegaPower recycles batteries for use in static environments i.e., homes or offices.

Benise questioned Mr. Emmanuel about whether there are any hindrances (apart from policy) to Hadeed Motors importing EVs. Mr. Emmanuel stated that there are no other hindrances. Impositions by manufacturers can typically be overcome. There was previously concern about disposal of EV batteries but that has since dissipated. Benise then inquired of the availability of

sales data at the Statistics Division to which Melissa LeBlanc responded and stated that the Customs Office has relatively good sales data post 2017. This data, however, does not have classification for electric cars as these are typically grouped with other vehicles such as electric golf carts and jet skis.

Benise continued the discussion by asking if all vehicles in the country get registered and Mr. Joseph confirmed that all are required to be registered. The question was raised about illegal imports of vehicles, but the room confirmed that illegal imports do not take place as it would logistically be very difficult for an individual to accomplish. Shifting focus, Benise turned to Ms. Thibou to ask about any plans to address the increase in decommissioned ICE vehicles and EVs grow in popularity. Ms. Thibou indicated that the company would be willing to execute the removal of vehicular waste, but it will be in conjunction with the government and dependent on adequate funding.

Mr. Shemrick Rodney brought forth the issue of the involvement of the local utility company and their necessary role in the transition. The general response was that there would be difficulty in getting the company to transition. Benise identified the need to discuss the installation of charging stations when considering a transition to EVs. She asked if there are any plans to install charging stations in the country outside of those planned under the SLIM project. Mr. Barreto noted the MegaPower Antigua has taken active role in installing charger stations around the island. They do so in partnership with private sector businesses and markets the initiative as an additional stream of revenue. There are six public units but much more if considering private units.

Speaking on behalf of the ICAT PII National Coordinating Team and the DOE, Jason Williams reiterated the importance of good data collection and reassured the stakeholders present that the data is not received and stored without purpose. As mentioned, it is used in reporting to the different conventions to which the country is a signatory for example through the NDCs. He encouraged continued collaboration among the stakeholders in that regard and indicated the availability of the Monitoring, Evaluation and Data Management Unit (DMU) at the DOE in assisting agencies with data management. Ms. LeBlanc shared that under the SLIM project, draft strategies and policies will be developed and presented at the ministerial level for potential adoption, and that the stakeholders present would be included in consultations on those strategies

and policies. Mr. Rodney raised the point of including stakeholders from the Ministry of Finance (MOF) in these types of forums as many of the initiatives require funding and an understanding of how to allocate funds for certain matters. Ms. LeBlanc replied that there is currently a working relationship between the DOE and MOF but agreed that a point of contact who can regularly participate in discussions is necessary.

Closing

In summary, Benise revisited the key points that came out of the discussions:

- Policy is needed in place for action to be fully effective.
- Good data is important. Without good data, policymakers cannot be properly informed.
- Collaboration among stakeholders is a critical part of successful transition to electric mobility.

After closing out the discussion, the floor was handed over to Mr. Reynolds who issued closing remarks to the participants and brought the workshop to a close.

Annexes

Annex 1 – Recording

The recording of the workshop can be accessed using the following link: [Transport Alignment Workshop Recording.mp4]

Annex 2 - Agenda

Initiative for Climate Action Transparency Phase II: Building National Transport Electrification Impact Assessment

Transport Alignment Workshop

Objective: *To consult with SLIM project staff and other selected stakeholders to align transport mitigation measures with Government plans and other in-country activities*

Date: Thursday 13th July 2021
Time: 9:00 a.m. – 11:20 p.m.
Location: In-Person, Antigua
Event Type: Stakeholder Engagement Workshop
Meeting Facilitator: Benise Joseph and Anik Jarvis

Time	Agenda Items
9:00 – 9:10	**Registration and Welcome**
9:10 – 9:40	**ICAT Project Overview –** Overview of the tools for assessment and mitigation measures
9:40 – 9:55	**SLIM Project Overview –** Overview of the SLIM project and workplan
9:55-10:25	**Other Current or Potential In-Country Project Activities –** Projects which may align with the ICAT project or use ICAT results for development including Government Plans
10:25– 10:35	**Break**
10:35 – 11:10	**Discussion –** Current plans and methods to achieve NDCs and Possible Alignments
11:10 – 11:20	**Workshop Evaluation, Next Steps & Closing**