Mid-term Evaluation and Learning Exercise of the Cabo Verde Electric Vehicles Project

Project Evaluation and Learning Exercises for the Mitigation Action Facility

Final Report

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Preface

The Mitigation Action Facility is a joint initiative of the German Federal Ministry for Economic Affairs and Climate Action (BMWK), the UK's Department for Energy Security and Net Zero, the Danish Ministry of Climate, Energy and Utilities (KEFM), the Danish Ministry of Foreign Affairs (MFA), the European Union and the Children's Investment Fund Foundation (CIFF). The Mitigation Action Facility evolved from the NAMA Facility, which was established in 2012. The Mitigation Action Facility's vision is to accelerate decarbonisation to keep temperature rises below 1.5 degrees Celsius by financing measures that shift priority sectors in a country towards a sustainable, carbon-neutral pathway. All projects with an overall duration of more than three years are subject to a mid-term and a final evaluation and learning exercise.

The Technical Support Unit (TSU) functions as the secretariat of the Mitigation Action Facility. The TSU commissioned AMBERO and Oxford Policy Management to conduct mid-term and final Evaluation and Learning Exercises (ELEs). Each ELE is conducted using the same Theoretical Framework (FW), which involves the application of a document review, participatory workshops, and stakeholder interviews to collect evidence about projects' results and lessons analysed using a Theory-based approach centred on the use of contribution analysis reinforced by elements of process tracing.

This document presents the findings of the **mid-term ELE of the Cabo Verde Electric Vehicles project.** The report has been reviewed by Luca Petrarulo (Technical Lead, project ELE Team) and Elizabeth Gogoi (International Expert A, project ELE Team). For further information, please contact daponte@ambero.de.

Executive summary

Cabo Verde started implementing actions toward mitigation of transport sector emissions in 2019 with the enactment of the Policy Charter for Electric Mobility (*Carta de Política para a Mobilidade Elétrica*, CPME) and the Action Plan for the Promotion of Electric Mobility (*Plano de Ação para a Mobilidade Elétrica*, PAME). The aim was to convert the entire government fleet to EVs by 2030 and phase out internal combustion engine vehicles (ICEVs) by 2050. The National Directorate of Energy, Industry, and Commerce (DNICE) within the Ministry of Industry, Commerce and Energy (MICE), with support from the *Gesellschaft für internationale Zusammenarbeit* (GIZ), prepared the proposal for the Cabo Verde Electric Vehicles project for the Mitigation Action Facility to support the national transition of the road transport sector advocated by those policies. The project involves several tax exemptions to electric vehicles (EVs), which were previously only applied to certain new or semi-new ICEVs, such as taxis, buses, freight and emergency vehicles.

Despite the upfront cost reduction caused by the tax exemptions, and the total lower costs over the vehicle lifetime (fuel, maintenance), several barriers were identified preventing the development of the EV market in Cabo Verde, including higher upfront prices of EVs relative to ICEV equivalents, limited knowledge and awareness of EV benefits, insufficient EV charging infrastructure and capacities to procure and maintain EVs, and an inadequate legal and regulatory framework. The Cabo Verde Electric Vehicles project has been specifically designed to address these barriers and, by delivering the following outputs, create favourable conditions for the growth of the EV market in Cabo Verde:

1. The establishment of an Electric Mobility Facility (EMF) provides grants and rebates to public and private actors for procuring 600 EVs and 95 CS for private use.

2. A network of initially 40 commercial charging stations covering several islands is created.

3. Activities to develop an appropriate legal and regulatory framework for EVs and the commercial provision of EV charging services.

4. Testing and introducing electric buses providing school transport in the country's two largest cities, Praia and Mindelo, and three municipalities.

5. Capacity building programmes for policymakers and other sector professionals.

6. Improving the system for monitoring and reporting greenhouse gas (GHG) emissions from road transport.

7. Awareness-raising initiatives among sector professionals and the public to promote the benefits and characteristics of electric vehicles.

8. Activities focused on improving the understanding of the optimal grid integration of EV charging into the electricity grid among sector professionals.

The project intends to increase the EV fleet by 600 units (4.3% of newly registered cars) by 2026, including 10% of the vehicles procured by the public administration and at least seven electric buses. The EVs facilitated by the project would result in the avoidance of 19,890 tCO2 emissions over the

EVs' lifetime (direct GHG impact) and, indirectly, avoiding the emissions of 401,481 tCO2 resulting from the 56,107 EVs that are expected to be sold without project assistance over the 20 years from project start.

By its Terms of Reference, this Evaluation and Learning Exercise (ELE) seeks to address the following General ELE Questions (ELEQs): Has the project achieved its results? Has the project started to trigger transformational change? What has been learned from the project so far?

The ELE was conducted by three independent evaluators (ELE team) between March and September 2023. The ELE inception phase took place between March and April 2023. In April 2023, the ELE team interviewed 42 project stakeholders (project team, stakeholders, and third parties) during an 11-day field work in Cabo Verde. The analysis took place in May 2023; the report was drafted in June 2023 and reviewed and finalised by September of the same year.

The ELE found the project highly relevant and crucial to achieving the national transport sector mitigation goals and directly linked to national policy objectives. The project has achieved significant progress in output delivery, and the ELE team could identify early evidence of transformational change contributed by the project. The project has successfully set up an EMF that has already facilitated half of the EVs procured in Cabo Verde in 2022 in collaboration with the most important car dealerships in the country. The project has also succeeded in finalising a contract to install a nationwide network of public charging stations (40) and worked with public transport operators in the country's two main cities of Praia and Mindelo to facilitate the adoption of electric buses. Moreover, the project enables technical and vocational training (TVET) capacities to prepare charging stations and EV mechanical professionals. It intends to train emergency responders and civil protection officials on possible EV-related emergencies.

Nevertheless, it is unlikely that the project will reach the 600 EV target before the end of the project in 2025, as the target was set on the wrong assumption of high demand for smaller, less-than-four-seater cars. EV demand in Cabo Verde is driven by individuals, and private and public companies who were already convinced of the necessity of the transition to electric mobility. All people interviewed by the ELE team assume that EVs are the only viable future for the transport sector in Cabo Verde, but barriers related to high upfront costs and limited awareness of lifetime costs and EV possibilities (fuel savings, power, autonomy, lower maintenance costs) remain.

The project will likely achieve its mitigation targets through more intense involvement of public transport operators, including buses and taxis. Public utility vehicles have, on average, ten times more daily mileage, and hence average emissions, than private cars. However, upfront costs for e-buses are too high, and the project's current subsidy levels will not suffice to achieve the project's seven e-bus targets. Worst, there are currently no viable electric alternatives for the microbus (9 to 12-seaters) market, which is the most significant interurban public transport modality. Thus, the project intends to target the taxi sector. Many taxi operators are still unaware of the EV advantages, and together with the existing tax exemptions for ICE taxis, only five (project-facilitated) electric taxis are operating in Cabo Verde. Municipalities can have a critical role in expanding the number of e-taxis. The national government has not yet eliminated tax incentives for ICE public utility vehicles or significantly taken steps to renovate public entities' fleets with EVs.

Despite the limitations, the project model can be replicated in other small island developing states (SIDS), while mainland African countries have a distinct set of characteristics that would likely need different support for energy transition and sustainable mobility.

Table of contents

List of tables, figures, and boxes

List of abbreviations

BEV	Battery Electric Vehicles
BMWK	German Federal Ministry for Economic Affairs and Climate Action
COVID-19	Corona Virus Disease 2019
CPME	(Cabo Verde's) Policy Charter for Electric Mobility
CS	Charging Station
DA	Import duties
DGPCP	Directorate-General for Public Procurement and National Assets
DGRT	Directorate-General for Road Transportation
DI	Import Duty
DNA	National Directorate for Environment
DNICE	National Directorate of Energy, Industry and Commerce
DPP	Detail Preparation Phase
ELE	Evaluation and Learning Exercise
ELEQ	Evaluation and Learning Exercise Question
EMF	Electric Mobility Facility
EQ	Evaluation Question
EV	Electric Vehicle
EUR	Euro
HEV	Hybrid Electric Vehicles
ICE	Internal Combustion Engine
ICEV	Internal Combustion Engine Vehicle
IPCC	Intergovernmental Panel on Climate Change
IVA	Value Added Tax
FC Component	Financial Cooperation Component
FW	Framework

GHG	Greenhouse Gases
GDP	Gross Domestic Product
GIZ	Gesellschaft für Internationale Zusammenarbeit
KfW	KfW Development Bank (KfW – Kreditanstalt für Wiederaufbau)
KII	Key Informant Interview
Logframe	Logical Framework
MAA	Ministry of Agriculture and Environment
M&E	Monitoring and Evaluation
MICE	Ministry of Industry, Commerce and Energy
MoF	Ministry of Finance
MRV	Measurement, Reporting, and Verification
MW	Megawatt
NAMA	Nationally Appropriate Mitigation Action
NDC	Nationally Determined Contributions
OECD DAC	Organisation for Economic Co-operation and Development's Development Assistance Committee
OPM	Oxford Policy Management
PAME	(Cabo Verde's) Action Plan for the Promotion of Electric Mobility
PIU	Project Implementation Unit
QA	Quality Assurance
QC	Quality Control
RAG	Red Amber Green
SCT	Special Consumption Tax
TC Component	Technical Cooperation Component
ToC	Theory of Change
TS	Types of Sources
TSU	Technical Support Unit, Mitigation Action Facility
TVET	Technical and Vocational Education and Training

1 Introduction

This document presents the findings of the **mid-term Evaluation and Learning Exercise (ELE) of the Cabo Verde Electric Vehicles (EVs) Project.** The ELE was undertaken during the period March-June 2023.

1.1 Overview of the project

Cabo Verde is an archipelago of 4,033 km^2 made up of ten small islands nine of which are inhabited, with a total population of 498,063, predominantly urban (73.9%) and concentrated on the island of Santiago (55.7% of the total)[1]. The economy is based on tertiary activities (70% of GDP and almost 50% of total employment), with tourism being the sector with the greatest growth, although it is concentrated on two islands, Sal and Boa Vista.

Due to its insularity, Cabo Verde's energy sector comprises nine energy systems of different sizes and characteristics, ranging from 90.2 MW of generating capacity on Santiago Island to 1.7 MW on Brava Island. Most of the energy consumed in Cabo Verde is derived from petroleum products (butane, kerosene, oil, diesel, fuel oil, etc.)[2]. Fuel oil is mainly used in electricity generation, and diesel in the transport sector, which is the main energy consumer in Cabo Verde. The vehicle fleet consists mainly of second-hand cars imported from Europe or the United States, although Chinese-made vehicles are already on the market[3].

Although clean energy transition is an old ambition of the country, in recent years, the Cabo Verdean government has begun to chart a consistent course towards energy transition based on a solid diagnosis(as part of the Power Sector Master Plan development process) of what was needed. The ambition to fully decarbonise the electricity sector by 2040, with a 50% penetration of renewables by 2030, is set out in energy policy documents (National Energy Sustainability Plan, part of the National Energy Sustainability Plan 2021-2026) and international commitments such as the Nationally Determined Contribution (NDC), of 2021. To this end, various instruments have been developed, such as the Power Sector Master Plan 2018-2040 with a timetable and list of new investments in renewable capacity complemented by a framework of annual tenders for the acquisition of additional renewable electricity capacity and the regulation on low-voltage Installations, among others.

However, the transport sector, the main emitter of greenhouse gases (GHG), has not received the necessary attention until 2019. In that year, the national government published the Policy Charter for Electric Mobility (*Carta de Política para a Mobilidade Elétrica*, CPME) and the Action Plan for the Promotion of Electric Mobility (*Plano de Ação para a Mobilidade Elétrica*, PAME), aiming to convert the entire government fleet to EVs by 2030 and phasing out internal combustion engine vehicles (ICEV)

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[1] Source: https://ine.cv/censo-2021/.
[2] 85% in 2019 (IRENA, 2022).
[3] According to the car dealers, some 75 per cent of imported cars are second-hand, mainly from Portugal or Germany, highlighting the growing number of crashed cars imported as parts and assembled in precarious workshops.

by 2050. Currently, the Cabo Verde EVs Project is the main instrument supporting the transition in the road transport sector, together with significant fiscal incentives as described below.

The importation of ICEVs is subject to various categories of taxation on the customs value, including the import duty (DI, the Portuguese acronym for Direito de Importação), on top of their value-added tax (IVA, Portuguese acronym for VAT) and special consumption tax (SCT Imposto de Consumo Especial in Portuguese), depending on the vehicle characteristics. Following the adoption of the Policy Charter for Electric Mobility, the government approved a tax exemption for EVs, which is a result of the project support during its detail preparation phase (DPP). Therefore, the financial support for the acquisition of EVs proposed by the Cabo Verde EVs project is additional to the DI, SCT and VAT exemptions, resulting in a significant reduction in the purchase cost of EVs

Along with EVs, other vehicles are DI, VAT, or SCT exempted: freight vehicles (0-5 years) and municipal service vehicles (e.g., sanitation and emergency vehicles). Especially relevant for the project are the exemptions for new internal combustion engine (ICE) taxis, new ICE buses (30+ seats) and microbuses (12+ seats), and school buses that have a reduced 5% import duty and are SCT and VAT-exempted[4].

Despite these favourable policies, according to the project proposal, the national EV market has been facing several significant barriers to project design, including:

- High prices of EVs relative to ICEV equivalents
- Limited knowledge and awareness of EV benefits for potential users
- Insufficient public EV charging infrastructure
- Lack of capacities to procure and maintain EVs, including technical and vocational education and training (TVET)
- Inadequate legal and regulatory framework (e.g., EV registration, deregistration and scrapping, charging stations and electrical grid policy, among others).

The Cabo Verde Electric Vehicles project has been specifically designed to address these barriers and create favourable conditions for the growth of the EV market in Cabo Verde. By targeting these barriers, the project aims to make EVs more affordable, increase stakeholder knowledge and awareness, establish a reliable charging infrastructure, and improve the legal and regulatory framework for EVs and charging services. Through these efforts, the project aims to accelerate the adoption of EVs, reduce air pollution and noise, and ultimately reduce GHG emissions in Cabo Verde's transport sector. The project proposes several outputs to address these challenges:

1. The establishment of the Electric Mobility Facility (EMF) will provide grants and rebates to public and private actors for procuring 600 EVs and 95 CS for private use.
2. A network of initially 40 commercial charging stations covering several islands is created.
3. Activities to develop an appropriate legal and regulatory framework for EVs and the commercial provision of EV charging services.
4. Testing and introducing electric buses in the country's two largest cities, Praia and Mindelo, and three municipalities providing school transport.
5. Capacity building programmes for policy makers and other sector professionals.

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[4] National Assembly of Cabo Verde, 2022, Act 16/X/2022, State Budget for 2023.

6. Improving the system for monitoring and reporting greenhouse gas emissions from road transport.
7. Awareness-raising initiatives among sector professionals and the general public to promote the benefits and characteristics of electric vehicles.
8. Activities focused on improving the understanding of the optimal grid integration of EV charging into the electricity grid among sector professionals.

The Ministry of Industry, Commerce and Energy (MICE) is the national ministry responsible for the project and the main implementing partner with overall responsibility for its Financial Cooperation (FC) Component and Technical Cooperation (TC) Component. Its National Directorate of Energy, Industry and Commerce (DNICE) hosts the 7-staff project implementation unit (PUI) run by the Implementation Organisation, the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ). Other key partners include:

- The National Directorate of Environment (DNA) of the Ministry of Agriculture and Environment (MAA);
- The Directorate General of Road Transport (DGTR) of the Ministry of Internal Affairs;
- The Ministry of Finance (MoF) will make the payments under the financial mechanism.

The implementation was planned for a period of 60 months (2020-2026), with a first phase (start-up) of 9 months and a second phase (implementation) of 51 months. However, due to the COVID-19 pandemic, Phase 1 (09/2020-05/2021) was delayed and extended beyond the 9 months leading up to Phase 2 starting in November 2021, instead of March 2021.

The impact and outcomes of the project

The project intends to significantly increase the EV fleet share by 600 units 600 new, all-electric vehicles incl. buses, causing EVs to reach 4.3% of newly registered cars by 2026 The project facilitated EVs should include 10% of the vehicles procured by the public administration and at least seven electric buses. In 2019, only 24 light e-vehicles were registered in Cabo Verde and no electric buses. The EVs facilitated by the project would result in direct GHG emissions avoidance of 19,890 tCO_2 over the EVs lifetime[5] (direct GHG impact), and, by catalysing demand, indirectly avoid the emissions of 401,481 tCO_2 resulting from the 56,107 EVs that are expected to be sold without project assistance over the 20 years from project start. As co-benefits, the project proposal intended to reduce air pollution and noise directly benefiting EV users, estimated to be 14,745 people.

Contributing to the project's stated impact requires addressing the barriers identified in the project design. For each identified barrier, the project design includes a corresponding output (Figure 1). The outputs addressing each barrier would then lead to intermediate outcomes that the ELE formulates as a self-sufficient demand increasing the total fleet EV share (intermediate outcome 1), promoted by an enabling environment (intermediate outcome 2), and capacity and mechanisms to measure and
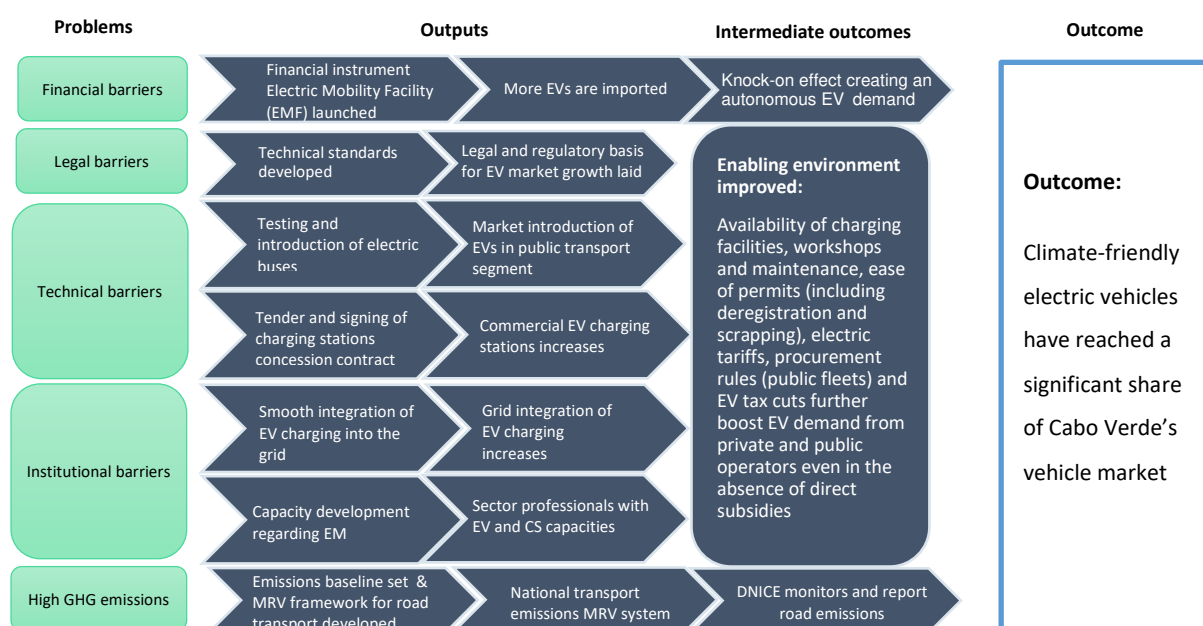
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[5] The expected direct GHG emissions avoided during the project implementation period amount to 4,159 tCO_2.

report the transport sector emissions avoided directly and indirectly by the project (intermediate outcome 3).

The original causal pathways

To progress from the initial problem and barriers identified to achieving the outcomes presented, the project Theory of Change (ToC) foresees 3 causal pathways, illustrated in Figure 1.

Figure 1. Overview of the Original Causal Pathways of the Cabo Verde Electric Vehicles Project

Problems	Outputs		Intermediate outcomes	Outcome
Financial barriers	Financial instrument Electric Mobility Facility (EMF) launched	More EVs are imported	Knock-on effect creating an autonomous EV demand	**Outcome:** Climate-friendly electric vehicles have reached a significant share of Cabo Verde's vehicle market
Legal barriers	Technical standards developed	Legal and regulatory basis for EV market growth laid	**Enabling environment improved:** Availability of charging facilities, workshops and maintenance, ease of permits (including deregistration and scrapping), electric tariffs, procurement rules (public fleets) and EV tax cuts further boost EV demand from private and public operators even in the absence of direct subsidies	
Technical barriers	Testing and introduction of electric buses	Market introduction of EVs in public transport segment		
	Tender and signing of charging stations concession contract	Commercial EV charging stations increases		
Institutional barriers	Smooth integration of EV charging into the grid	Grid integration of EV charging increases		
	Capacity development regarding EM	Sector professionals with EV and CS capacities		
High GHG emissions	Emissions baseline set & MRV framework for road transport developed	National transport emissions MRV system	DNICE monitors and report road emissions	

The ELE has identified the following causal pathways sustaining each of the three Intermediate Outcomes and Final Outcomes of the project:

- **Causal pathway supporting Intermediate Outcome 1:**

  If the project addresses the existing financial barriers to EVs by designing and setting up an Electric Mobility Facility (EMF) providing subsidies to private, corporate, and public parties procuring electric vehicles, then more EVs will be imported, demonstrating the advantages of EVs to wider segments of society, and, provided that EV prices reduce over time and/or fiscal incentives are maintained or slowly removed, so that EVs remain competitive relative to ICEVs, then an autonomous demand for EVs will be established in Cabo Verde (intermediate outcome 1), contributing to leading to a progressive phasing out of ICEVs and EVs reaching a significant share of Cabo Verde's vehicle market (Outcome).

- **Causal pathway supporting Intermediate Outcome 2:**

  If technical standards are developed and, together with competent government entities, the legal and regulatory framework is reformed to facilitate registration of EVs, and the establishment of a commercial charging stations network is facilitated through a public tender and subsidies, and tariff and grid reforms, and TVET and other venues are supported to provide capacity to local professionals to install and maintain EVs and charging stations, then EV ownership and operation will be favoured (Intermediate outcome 2), leading to a

progressive phasing out of ICEVs and EVs reaching a significant share of Cabo Verde's vehicle market (Outcome).

- **Causal pathway supporting Intermediate Outcome 3:**

If the project supports the development of a robust and flexible measurement, reporting, and verification (MRV) system for road transport and it supports the ownership transfer of the MRV system to the Government, then DNA/DNICE can monitor and report on the national GHG budget, including road emissions (Intermediate Outcome 3), and get the possibility of quantifying GHG savings of EVs, which contributes to increasing the Cabo Verde's EV market to a significant share (Outcome).

1.2   The focus of the Evaluation and Learning Exercise

In accordance with its Terms of Reference, this ELE seeks to address the following General ELE Questions (ELEQs):

- Has the project been achieving its results?
- Has the project started to trigger transformational change?
- What has been learnt from the project so far?

In addition, the following specific elements will be considered in this ELE:
- What evidence exists for a shift in attitudes towards Electric Vehicles (EVs)? (ELEQ 5)
- Based on the ELE interviews, what evidence is there that the products/EVs in all categories covered by the project (e.g., buses, mini, buses, cars) are available on the market in Cabo Verde? (ELEQ 3.1 and 3.2)

The General ELEQs presented above were broken down and operationalised into Specific ELEQs answered in this report. Table 1 maps the General and Specific ELEQs against the Organisation for Economic Co-operation and Development's Development Assistance Committee's (OECD DAC) evaluation criteria[6], widely used as international standards for evaluating development interventions. Reference to the relevant report section where each ELEQ / evaluation criterion is treated is also given. Finally, the specific ELEQs were broken down further into sub-questions, which are included in the official ELE Matrix, approved by the Mitigation Action Facility Technical Support Unit (TSU), and reported in Annex B.

Table 1. General and specific ELE questions and their link to the ELE Report sections.

General ELE Question	Specific ELE Question	Evaluation criteria (relevant ELE Report section)
Is the project achieving its planned results?	To what extent does the project address an identified need?	Relevance (Section 3.1)
	To what extent has the project been achieving intended intermediate outcomes (and unintended ones)?	Effectiveness (Section 0)

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[6] Relevance, Effectiveness, Efficiency, Impact, Sustainability. The ELE Team added a 6th criteria, namely Learning.

	To what extent is the relationship between inputs and outputs timely and to expected quality standards?	Efficiency (Section 3.3)
Is the project starting to trigger transformational change?	What evidence is there that the project is likely to contribute to the intended impact in the ToC (incl. transformational change)?	Impact (Section 3.4)
	What is the likelihood that the outcomes will be sustained after the end of the project funding period?	Sustainability (Section **Error! Reference source not found.**)
What has been learnt from the project so far?	What key lessons can be learnt to the benefit of this or other projects funded by the Mitigation Action Facility in achieving their results?	Learning (Section **Error! Reference source not found.**)

1.2.1 The Mitigation Action Facility Transformational Change Measurement Framework

Some words need to be spent on the concept of transformational change, which is included in the General and Specific ELEQs. The enabling of transformational change is one of the key aims of the Mitigation Action Facility and, therefore, of projects. The Mitigation Action Facility defines Transformational Change as "*Catalytic change in systems and behaviours resulting from disruptive climate actions that enable actors to shift to carbon-neutral pathways*"[7]. The Mitigation Action Facility Theory of Change explains how transformational change is expected through its outputs and outcomes. The Theory of Change is broad, and transformational change can be achieved through projects in different ways.

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[7] https://mitigation-action.org/wp-content/uploads/Mitigation-Action-Facility_TC-factsheet.pdfhttps://www.nama-facility.org/concept-and-approach/transformational-change

Figure 2. Transformational Change Measurement Framework

Dimension 1: Promoted a demonstration effect
Viability and benefits of mitigation solution demonstrated on the ground
Project stakeholders 'buy-in' to mitigation solution, incl. mobilisation of public/private finance
Results and lessons of mitigation solution documented and promoted

Dimension 2: Caused a catalytic effect
Systemic Change
Increased beneficiaries' capability
New market behaviour and economic incentives
Broadened political support for the solution
Shift in values, ideology and mindset
Improved policy, legislative and regulatory frameworks
Replication & Scaling-Up
Replication in new sectors or locations
Significant scaling-up
Kick-started implementation of NDC or sector-wide mitigation

Dimension 3: Contributed to additional GHG savings
Evidence of Additional / Indirect GHG savings
High likelihood of large-scale & long-term GHG savings

 illustrates three dimensions that interact and reinforce each other to produce project-induced transformational change. Each project will work on different elements of the three dimensions to define its pathway to or "recipe" for transformational change. A more detailed explanation of the ELEs' Transformational Change Measurement Framework (TCMF), summarised in

Figure 2. Transformational Change Measurement Framework

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Replication in new sectors or locations
Significant scaling-up
Kick-started implementation of NDC or sector-wide mitigation

Dimension 3: Contributed to additional GHG savings
Evidence of Additional / Indirect GHG savings
High likelihood of large-scale & long-term GHG savings

, is presented in Annex A.

The ELE used the TCMF to assess the project's progress towards its impact in Section 3.4. In particular, in the evidence gathered through the ELE, the evaluators have looked for "signals" of the materialisation of the three dimensions and classified them as early, interim, and advanced signals according to the definitions in Table 2. Table 3 shows the minimum level of signals of each of the three transformational change dimensions that projects are expected to have achieved by, respectively, their mid-line and end-line.

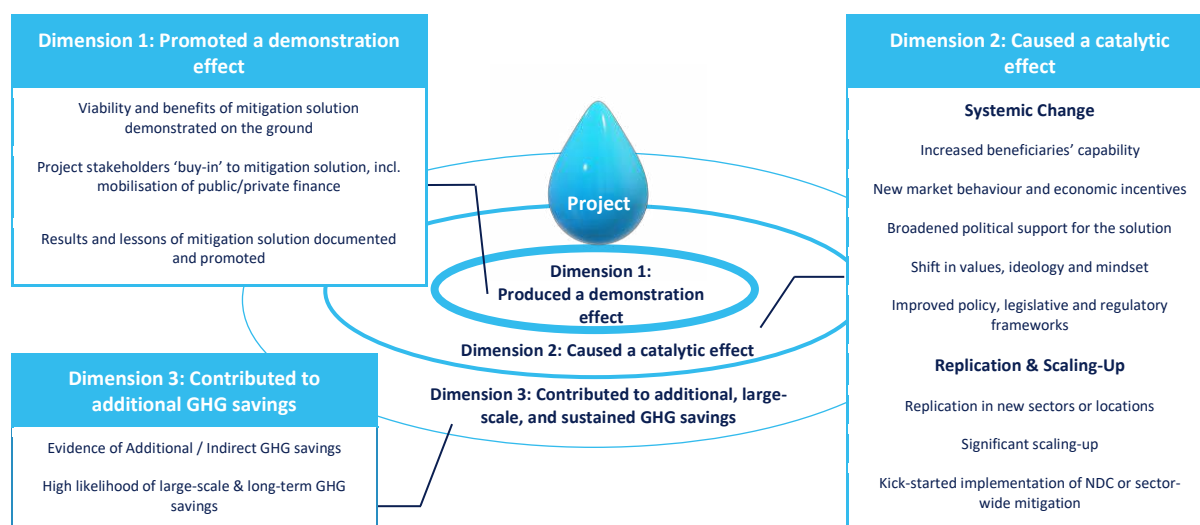**Figure 2. Transformational Change Measurement Framework**

Dimension 1: Promoted a demonstration effect

Viability and benefits of mitigation solution demonstrated on the ground

Project stakeholders 'buy-in' to mitigation solution, incl. mobilisation of public/private finance

Results and lessons of mitigation solution documented and promoted

Dimension 3: Contributed to additional GHG savings

Evidence of Additional / Indirect GHG savings

High likelihood of large-scale & long-term GHG savings

Project

Dimension 1: Produced a demonstration effect

Dimension 2: Caused a catalytic effect

Dimension 3: Contributed to additional, large-scale, and sustained GHG savings

Dimension 2: Caused a catalytic effect

Systemic Change

Increased beneficiaries' capability

New market behaviour and economic incentives

Broadened political support for the solution

Shift in values, ideology and mindset

Improved policy, legislative and regulatory frameworks

Replication & Scaling-Up

Replication in new sectors or locations

Significant scaling-up

Kick-started implementation of NDC or sector-wide mitigation

Table 2. Transformational Change "Signals" assessment by ELEs

Signal level	Definitions
No evidence	Evidence suggests little to no progress is being made in line with the ToC causal pathways to Transformational Change.
Early signals	There is emerging evidence of the transformation related to the dimension, or the foundations for the transformation have been laid by the project. Still, no signals of the change are present.
Interim signals	Evidence shows some signals that the transformation related to the dimension is underway, and it is likely to continue.
Advanced signals	Evidence shows strong signals that the transformation related to the dimension is underway, and there is little doubt that it will continue.

Table 3. Minimum expected signals of project-induced transformational change

Dimension	Mid-point	End-point
1: Promoted a demonstration effect	Interim signals	Advanced signals
2: Caused catalytic effect	Early signals (of one or more of the types of possible changes)	Interim signals
3: Contributed to additional GHG savings	None	Early signals

2 Methodological approach

The mid-term ELE comprises four main phases: inception, fieldwork, analysis, and reporting.

Inception phase (March-April 2023)

The inception phase involved the definition of the ELE matrix, including the ELE questions, data collecting methods and identifying respondents among the three main groups: project team, stakeholders, and third parties. Project team respondents are those parties directly involved in the implementation of the project, such as the Implementation Organisation (GIZ) and the main Project Partner (DNICE). Project stakeholders are actors who are affected by project actions and can influence project outputs and outcomes. In this category were included the entities participating in the project steering committee, i.e. the General Directorate of Road Transport, the National Directorate of the Environment, the Ministry of Finance, and the Association of Municipalities of Cabo Verde, as well as other important national government bodies influencing the regulatory process, including the Directorate-General of Public Procurement and State Assets (DGPCP), municipal governments, public transport operators, car dealerships, and TVET centres. Third parties included project beneficiaries and other actors involved in electric mobility in Cabo Verde.

Fieldwork (April 2023)

The fieldwork started with a kick-off workshop involving the project team, DNICE director, and staff and was finalised with a mission debrief and validation workshops with the same actors. During the 11-day mission, the ELE team conducted 25 qualitative, semi-structured interviews, observation of electric vehicle operations[8] in the cities of Praia (Santiago), Mindelo (São Vicente) and the town of Santa Cruz (Santiago), and a focus discussion group with 8 EMF beneficiaries representing private EV owners and one company.

Table 4. Overview of the number of interviews and interviewees by sampling category

	Project Team	Project Stakeholders	Third Parties	TOTAL
No. interviews	4	11	10	**25**
No. interviewees	8	16	20	**42**

Analysis (May 2023)

The ELE team consolidated its interview notes and documentary evidence in an evidence map table, extracting common themes and weighing the evidence to answer the evaluation questions, confirming the evidence or absence of evidence for the causal pathways of the project's ToC. The main steps undertaken during the analysis phase are summarised in Table 5.

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[8] This included driving in the project EV through the island of Santiago, and interviews with EV taxi operators at their work.

Table 5. Summary of the ELE Analysis Methodology

Integrating Primary and Secondary Data	Evaluating the Strength of Evidence	Draft Contribution Story
Tailor analytical tools	Assess the strength of evidence of common themes	Draft contribution stories in the ELE report for each ELEQ and causal pathway
Tidy up notes	Identify concurrent/alternative explanations in ToC causal pathways	Final QC / QA
Data mining and evidence mapping from interviews and docs along ELEQs	Agreement on the Contribution of the project vs Context	
Extract positive and negative common themes for each ELEQ	Perform process tracing formal tests of causal pathways	
Consolidate and cross-check common themes	Develop a figure with RAG rating of causal pathways	
1st Quality Control (QC) / Quality Assurance (QA)		

Table 6. Scorecard for assessing the strength of evidence.

		Variety (number of types of sources (TS) reporting the evidence)		
		1 TS only	2 TSs	3 TSs
Quantity (number of sources reporting the evidence)	1 interview only	Single source		
	2 interviews	Weak evidence	Medium evidence	
	3+ interviews	Medium evidence	Strong evidence	Very strong evidence

Reporting (May-September 2023)

The ELE team prepared a draft report during May 2023, which was submitted to the TSU in June 2023. The TSU, project team, and the Mitigation Action Facility Board provided comments to the report, which were used to prepare the final report, finalized in September 2023.

2.1   Limitations

Despite repeated requests, the ELE team could not interview anybody from the National Environment Directorate (DNA). As the UNFCCC focal point, the DNA is the state party responsible for the consolidation of GHG inventory, including the transport emissions whose baseline and methodology this project intends to support. As the MRV mechanism is still being consolidated, including the DNA may be more significant at the final evaluation.

3   Key Findings

In this section, the ELE Team presents the main findings of the ELE. These are structured according to the ELE Questions in

Table 1. At the beginning of each section, a RAG rating of the strength of the project's contribution story to the ToC and the OECD DAC criteria is included, following the scale: Good / Very good = Green; Problems = Amber; Serious deficiencies = Red; Not enough info to rate = Grey.

3.1   Relevance of the project

Relevance	1. To what extent does the project address an identified need?

ELE interviews showed that Cabo Verde's policy and objectives (see section 1.1) for electric mobility are fully understood by the interviewees, who consider them appropriate and worthwhile. This perception is reinforced by the fact that similar objectives and measures are being taken in Europe, Cabo Verde's primary import market. Consequently, the general feeling is that the country has no alternative but to adopt electric mobility and EVs are seen as the future for Cabo Verde.

There is also strong evidence that the project is seen as the main instrument to achieve Cabo Verde's international commitments (NDC) and national goals and targets for e-mobility, in complete alignment with the Electric Mobility Policy Charter.

On the other hand, there is also agreement that e-mobility should be aligned and part of the country's energy transition ambition. Combining e-mobility with the transition to a sustainable energy system makes sense. Indeed, although the relatively high upfront cost of EVs and the high cost of electricity in Cabo Verde are perceived as barriers, using cheaper renewable energy to charge the vehicles would, in the long run, offset the high initial and operating costs compared to conventional fuels.

The environmental benefits of EVs, including reduced GHG emissions, noise, and air pollution, are perceived as an incentive for EV purchase. However, the impact on a global scale is considered insignificant due to the size of the country. The issue of batteries' end-of-live recycling is largely pointed out as one major issue in the long run.

EVs are considered appropriate for the country regarding distance travelled and charging frequency, and it is possible to have cars that meet the transport needs of all the islands. The government has chosen a broader geographical scope than previously proposed by the project team. The current objective is to bring EVs to the nine inhabited islands, as the energy transition is for the whole country. However, the challenge of implementing and ensuring environmental and economic sustainability in some of the islands[9] is fully recognised.

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[9] Although there was no specific geographical restriction in the proposal, a study conducted during the DPP recommended that at least four islands should be covered (Van der Veen et al. 2019). This minimum was the basis for early discussions with DNICE, which decided to cover all nine inhabited islands.

The project has yet to effectively engage municipal governments in its e-mobility promotion efforts. Yet municipal governments can play an important role, as shown by at least one municipality contributing to the government's objectives by giving significant weight to electric cars in its taxi license tenders. The winning bidders are now supported by the project to purchase the vehicles (see sections 3.2 and 3.3).

ELE respondents agree that collective transport, including taxis, inter-urban minibuses (mostly Toyota HiAce in Cabo Verde, carrying passengers and freight), and urban buses, including those belonging to public fleets (national government and municipalities), would have the greatest social and emission avoidance returns due to their mileage and number of people served.

Virtually all national car dealerships have joined or are close to joining the project's FC component's EMF. Car dealerships are a critical piece of e-mobility, acting as intermediaries between interested parties and the project's financial mechanism (see section 3.2). Dealers have expressed concerns about the lack of official brand representation for EVs, as they cannot guarantee the operation of the vehicles or the replacement of the batteries at the end of their life. Failure to address these issues by involving EV manufacturers (section 3.2) could erode confidence in EVs in the long term.

The project also addresses the need to ensure the charging capacity on private and public infrastructure, which is also seen as a necessary condition for ensuring a favourable enabling environment for EV uptake.

In this context, the project is seen as relevant and important to ensure that EVs are cost-effective and leverage the market. Nevertheless, some respondents, especially those who have already benefited from the rebate, felt they would still choose to buy an EV without the subsidy but with the import tax exemption (see section 1.1).

Based on the evidence found and presented above, the ELE Team considers the performance of the project in terms of relevance to national policy and national and private needs, as well as complementarity and appropriateness, to be appropriate. Consequently, it marks this evaluation criterion as 'green'.

3.2   Effectiveness of the project

Effectiveness	**2. To what extent has the project been achieving intended intermediate outcomes (and unintended ones)?**
	Intermediate Outcome 1: EMF-supported EVs convince a growing share of car owners of the feasibility of EVs
	Intermediate Outcome 2: Enabling environment: availability of charging facilities, workshops and maintenance, ease of permits (including deregistration and scrapping), electric tariffs, procurement rules (public fleets) and EV tax cuts further boost EV demand from private and public operators even in the absence of direct subsidies
	Intermediate Outcome 3 DNICE monitors and reports GHG budget, including road emissions

3.2.1 Intermediate Outcome 1: EMF-supported EVs convince a growing share of car owners of the feasibility of EVs.

The project's key achievement in its second implementation year was setting up the project's FC Component, embodied in the Electric Mobility Facility (EMF). According to the project proposal, the EMF should provide grants and rebates to public and private actors for procuring up to 600 EVs and 95 (private) charging stations (CSs).

The ELE found that EV registration is rising in Cabo Verde, with a significant EMF contribution (53% of total EVs registered in 2022)[10]. The project successfully set up the EMF (Cabinet Resolution no. 14/2022), overcoming significant resistance by car dealerships. All participants in the facility's subsidies interviewed in this ELE have very positively valued the EMF and its role in promoting electric mobility in Cabo Verde. The EMF has received 70 requests, including 6 EVs from public companies, and has facilitated the delivery of 18 cars for private users and company fleets. The low delivery ratio is not significantly different from the one for ICEV. It is caused by global supply chain issues that have plagued the small Cabo Verdean market, compounded by post-pandemic effects.

However, ELE respondents agree that, despite project media exposure and workshops with potential users, awareness about the existence and benefits of the EMF is limited among potential users, including taxi operators. The 600 EV target was based on the wrong assumption that cheaper small vehicles (less than four seats) would have more demand, considering the geographical and socioeconomic context of Cabo Verde. However, while rural areas show significant penetration of electric three-wheelers engaged in agricultural or retail activities, demand for small vehicles is low, and no application for such vehicles has been registered with the EMF. EV demand is currently driven by a relatively affluent sector of society that prioritises environmental concerns and long-term savings over immediate financial needs and who, at least partly, learned about the existence of the EMF after deciding to procure an EV. At the same time, it must be noted that these **users learned about the EMF through dealerships recruited by the project, rewarding project efforts in convincing most car dealerships to join the project's EMF.** To completely overcome dealer and EV user doubts about maintenance and service, manufacturers of EVs supplied to Cabo Verde should extend official post-sale service and support, which is currently assumed by the dealership and the buyer. As shown by the positive example of Rwanda in the African continent, official brand support and post-sales service, including through TVET, is critical to increasing consumer confidence and consequent demand for EVs. In Cabo Verde, one car manufacturer has already extended official post-sale support.

The project was expected to promote the demonstration of four electric buses in cooperation with municipal public transport concessions (private operators) in the country's two main cities (Praia, Santiago Island and Mindelo, São Vicente Island) and three other municipalities for school bus services, to be selected during project implementation.

The project succeeded in convincing the two public transport concessions in Praia and Mindelo to participate, and they have shared data on operations and costs with the project. Public transport operators are convinced of the need to transition to EVs soon. However, the price difference between electric and ICE buses for Cabo Verde remains unsurmountable for the public transport operators

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[10] From DGRT data included in project reports (2019-2021) and DGRT (2019-2023).

receiving the current level of project subsidy[11]. While the electric school bus pilot municipalities have yet to be selected, several municipalities are interested but unable to participate due to the budget required to procure e-buses. Thus, **with the current budget limitations, achieving the seven e-buses target remains very unlikely.** The project estimates that it can introduce two electric buses in Praia and Mindelo (one each) with the time, technical and financial resources currently available. To reach the intended 7 e-bus target, the project's contribution should be increased for e-bus prices to be competitive with ICE buses and induce public transport operators to procure them. The exact increase in the e-bus subsidy should be based on a market analysis. According to respondents to this ELE, the circulation of electric buses in the two main cities of Cabo Verde will increase exposure to and awareness of EVs among broader sectors of society.

The project has explored the possibility of penetrating the inter-urban transport sector, dominated by many small operators mostly using Toyota minibuses ("HiAce"). However, the project could not identify any alternatives for these vehicles. Considering the number of inter-urban transport users and their daily mileage, the impact of electric microbuses for interurban transport in terms of avoided GHG emissions and the number of beneficiaries is deemed by ELE respondents to be an order of magnitude higher than the current project targets for private cars or e-bus.

Despite the advances, it is unlikely the project will reach the 600 EV target before the end of the project in 2025. However, considering that taxis have, as estimated by ELE respondents, 10 times more daily mileage on average than private cars, attracting taxi operators would enable achieving the project's GHG mitigation and total number of beneficiaries targets. Taxi operators consulted during this ELE have shown interest in participating in the project. **Moreover, the five e-taxis currently in service in Cabo Verde have all benefited from the project subsidy and support in easing policy barriers** (see section 3.2.2). Increasing the share of e-taxis would require more action in terms of targeted awareness campaigns, as shown by the limited knowledge of the program and electric vehicles demonstrated by taxi operators consulted, and more institutional action, including promoting e-taxis in public biddings (see Sta Cruz example in the section 3.2.2) and gradually end the ICE taxis tax exemption (see Introduction). The latter would not be under the project's control but can be advocated. An increased EMF subsidy for e-taxis could help even the playing field if ICE tax exemptions continue.

While the EV target is unlikely to be achieved, the project has significantly contributed to developing the EV market in Cabo Verde. It can reach its mitigation target if the project successfully facilitates the electric transition for taxis, other public transport vehicles, and company fleets. While achieving seven electric buses under the current implementation period and budget remains unlikely, the project can yet pilot at least two. Therefore, the ELE rates this intermediate outcome as "green" under current implementation and budget conditions.

3.2.2   Intermediate Outcome 2: Enabling environment.

To reach the project's targets, the project design included five outputs to address barriers identified in the project proposal concerning the lack of public charging stations severely limiting the autonomy of EVs, the persistence of policy barriers and incentives favouring ICEVs, limited local capacities for

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[11] The current subsidy level was determined by project budget allocation based on a seven e-bus delivery target.

installations and maintenance of CSs and EV service, and electricity grid issues. Specifically, the project was expected to facilitate a commercial network of 40 CSs (Output 2) and ensure their integration into the national electrical grid (Output 8), create a conducive legal and regulatory framework (Output 3), undertake capacity development activities (Output 5), and promote technology uptake via awareness campaigns (Output 7).

The project has successfully launched a public tender for a public EV charging network of 40 CSs and secured the signature of the contract. Despite only one proposal being submitted, the contract was signed in June 2023, with CS installation due to start before the year ends. The limited response to the public tender was related to conditions imposed to install CS in all islands (out of social and equity motivations) considered uneconomic by all the firms consulted by this ELE. Discussions are ongoing between the Ministry of Energy and the State Tariff Regulator on enacting a regulated tariff for charging stations amid fears that high CS user prices will deter potential EV users. This creates incertitude in the market about future regulatory measures. **However, private investors outside the project are timidly installing CS in Santiago and Sal and remain confident in their commercial viability under the current grid and market conditions**.

In June 2022, due to the project's advocacy, the National Directorate for Road Transportation (DGRT) amended the General Legal Framework for Motorized Transport, eliminating the minimum cubic capacity[12] requirement for taxis and enabling the registration of electric taxis. Addressing other legal and policy barriers, the project partner plans the drafting of a decree-law covering EV end-of-life disposal and public CSs.

However, the prevalence of ICEVs is likely to remain high, especially in the more polluting, higher-risk, second-hand market, including illegally locally-assembled cars (from imported parts). This market segment, while taxed, is not sufficiently discouraged through enforcement or negative incentives. ICEVs are still subject to taxes, but with numerous exemptions for passenger and freight vehicles. While the **2022 budget introduced a new 200,000 CVE (1,813 EUR) tax (IEC) for 0-4 years ICE cars, their IEC was** reduced by 50% in 2023.

ELE respondents agree that the national government's leadership and example in renewing its vehicle fleet with EVs is critical to ease public concerns and doubts regarding electric mobility. However, despite having clear national goals (100% public electric fleet by 2030), public EV procurement has been very timid so far: only 6 EVs have been acquired by public companies through the project's EMF, against 120 EVs expected to be procured by project end. Outside the project (i.e. without project support), the government has also procured 11 EVs since the project started. Fleet renewal is hampered by the sometimes-limited budget allocation of different state entities and the absence of a clear directive on EV fleet renewal. However, the project's implementing rules also constrain the supported types and number of EVs for public institutions, as the Mitigation Action Facility does not allow subsidising vehicles intended for high-level government representatives (Ministers and Secretaries of State). The 11 EVs procured by the DGPCP will be delivered to Ministers and Secretaries of State. Moreover, EMF-supported EVs purchased by public institutions should not

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[12] Cubic capacity or engine displacement (in cubic centimetres) is a measure of an internal combustion engine's size and power. It cannot be applied to electric engines.

exceed 25% of all rebates, as the project prefers private companies and individuals. Nonetheless, public EV procurement is currently significantly below the 25% threshold.

While the project engagement has mostly occurred at the national government level, municipalities can make a significant electric mobility contribution with little public investment, as the example from Santa Cruz municipality shows. In Santa Cruz (Santiago Island), three EMF-supported new e-taxi operators were initially motivated to transition to EV because of the high weight of the EV criterion in the municipal taxi license tender.

The project signed two memoranda of understanding (MoU) with two TVET centres for EV (mechanical shops) and CS installation maintenance. The project is co-designing the modules, and the courses are expected to start in the next cycle. The project will hold workshops for fire brigades and civil protection. ELE respondents consider preparedness by fire brigades and civil protection to be critical, as a badly handled incident involving EVs could have significant repercussions regarding their reputation.

The project has promoted EVs and its EMF with full support from the project partner MICE, having successfully participated in several events in Cabo Verde, reported in the press. However, a widespread lack of awareness about the advantages of EVs, combined with limited opportunities to experiment and dissipate doubts, severely hinders EV expansion among significant groups of potential private and public users. Currently, potential buyers (general public, businesses and the public sector) do not have any means to test electric cars. This hands-on experience could serve as an effective method of promoting EVs while simultaneously easing concerns stemming from uncertainties surrounding the vehicles' autonomy, safety, and operation and maintenance, as identified through consultations with relevant stakeholders and third parties.

The project's communication strategy faces constraints, at least partly due to operational rules and budget allocation. These restrictions mean the project cannot invest in more traditional advertising campaigns than what current funding allows. Additionally, the project's EV cannot be used for promotional or testing purposes - even the team working on the project doesn't have permission to drive it. As moving funds within the project is a complex process that could impact the project's outcomes, the team has been seeking alternative methods to get its message across, such as using social media platforms. Stakeholders and third parties consulted by the ELE team agree that the demonstration effect would be more successful if the public fleet and public transport system included more EVs, such as official vehicles and taxis.

The project has enabled electric taxis, set up the installation of a network of public charging stations and concluded agreements with vocational training institutions to form future electric mobility professionals. Despite these advances in creating an enabling environment for EVs in Cabo Verde, the project has yet to overcome all of the proposal-identified barriers effectively, particularly in reaching out to a wider public and strengthening its partnership with other state institutions to further promote EVs. Despite these challenges, the ELE rates this intermediate outcome as "green", as the achievement of an enabling environment by strengthening the project communications and partnership with the public sector EVs is deemed likely at the project end.

3.2.3 Intermediate Outcome 3: DNICE monitors and reports the GHG budget, including road emissions.

Reporting on transportation GHG emissions is the responsibility of the project partner DNICE. The National Environment Directorate (DNA) then compiles the national GHG inventory. To calculate road emissions and EV emission avoidance, DNICE relies on data supplied by importing oil companies, according to the Intergovernmental Panel on Climate Change's (IPCC) methodology (Tier 1). To apply Tier 2 or 3 methodologies, data on fleet composition from the Road Transportation Directorate (DGTR) will be needed. However, limited communication between these two main entities responsible for road emission inventory hamper regular and accurate reporting of GHG mitigation, affecting the project's reporting of mitigation targets.

The project has so far been able to calculate direct emissions avoided by the EMF based on its data (EVs procured through the EMF), and has devised methods to calculate indirect emissions (avoidance from EVs procured outside the project). Due to missing information in the DGTR database, estimating indirect emissions requires identifying vehicle categories and distinguishing hybrid electric vehicles (HEVs) from battery electric vehicles (BEVs).

Following the launch of the rebate programme and the initial acquisition of EVs, annual data for 2022 regarding direct GHG emissions avoided by EVs have been calculated. As confirmed by ELE respondents, including emission avoidance data in the project's communications will increase EV social support, given the relatively high awareness about climate change and renewable energies in Cabo Verde. The project will assess the current methodology for calculating road-transport-related GHG emissions in 2023.

Considering the need to improve and establish a sustainable communication protocol between DGRT, the project team and DNICE, and to assess the GHG emissions avoidance methodology, the ELE rates this intermediate outcome as amber.

3.2.4 How external factors impacted the project's effectiveness.

The ELE examined 10 external factors that may have impacted the project's effectiveness. Those included lack of awareness, knowledge and experience, EV supply constraints, EV prices, regulatory environment, policy/ government change/ inflation and other effects of the current crises (e.g., the Russian invasion of Ukraine).

The project deals with a lack of awareness, knowledge and experience, and regulatory environment, as described in the previous section. Concerning the ongoing inflation crises, ELE respondents are unsure about the overall effect, as it involves negative drivers, as inflation diminishes overall purchase power and has affected vehicle demand. Still, it has also caused high oil prices, a positive driver for EV demand. Supply problems are not new or limited only to EVs for the light vehicle sector. However, economies of scale and the absence of reliable alternatives have severely affected the project's capacity to influence the urban and inter-urban public transport sectors.

It must be noted that the COVID-19 pandemic has effectively delayed the project by nine months, and its late start explains, at least partially, the limited EV requests and delivery through the EMF, and limited public EV procurement, CS network and regulatory reforms.

However, ELE respondents are unanimous in their assessment of the stability of government support for electric mobility. While it is unlikely that the government can sustain the project EV subsidies after the end of the project, fiscal benefits are expected to continue, regardless of the 2026 election results. In 2022, the national government committed EUR 137,038 for EV procurement (4 EVs procured by public companies) and forfeited EUR 332,291 in lost tax revenues (for tax-exempted EV imports).

Summing up the assessment of the Effectiveness criterion, the project has not delivered all its intended outputs and may not attain all its targets, especially the number of EVs and e-buses, due to:

- Delayed start

- Wrong project design assumption about preferred car types

- Lack of cost-effective electric alternatives to buses, especially in the "HiAce" 9-seater interurban category

- The timid government response in EV procurement and discouraging ICEs by limiting ICE tax exemptions.

Despite the limitations, the project's mechanism is facilitating the procurement of over half of the EVs registered in 2022, with the main car dealerships and incipient manufacturer support, and it is trying to engage and find alternatives to include more public utility vehicles (taxis, buses) to achieve its mitigation target. The project also plans to continue facilitating the enabling conditions, including the next installation of the 40 public charging stations contracted by DNICE and the start of TVET courses on CS and EVs. **Especially considering the project's contribution to EV procurement and the likely achievement of its mitigation target, the ELE rates its effectiveness as green.**

3.3   Efficiency of the project

Efficiency	3. To what extent is the relationship between inputs and outputs timely and to expected quality standards?

Given that the market for electric vehicles is still in its infancy in Cabo Verde, the project proposed a comprehensive approach to address all barriers (technical, legal, financial, institutional) to the uptake and sustainable use of electric vehicles. **Both the FC and TC Components are being implemented by a mixed team of DNICE and GIZ staff, who should therefore be closely interlinked.**

The project has suffered considerable delays, mainly due to the COVID-19 pandemic, and Phase 2 (implementation) only started in November 2021. **While the project team is solid and sufficient, the main implementing partner, DNICE, has limited availability of human resources.** DNICE has staff dedicated to the EV project who also attend other ongoing projects, which has affected some project activities. **Despite different working rhythms, the overall articulation is perceived as good.** Using the established personal relationships between key people in both institutions (GIZ team and DNICE) proved essential, especially when physical meetings were difficult during the pandemic.

Stakeholders and beneficiaries positively rate the relationship with the project team, and the project management is generally perceived as professional and efficient. Communication with the

team was quick and easy for those who had contact with the EMF. The dealership's facilitation was seen as successful and efficient, validating the project's efforts to get them on board.

However, EMF procedures would benefit from enhancing transparency to dissipate beneficiaries' doubts about subsidy amounts and dealerships' actual earnings. Based on the ELE interviews, this has to do with 1) the fact that EMF is only granted through car dealerships and 2) that it is common practice in Cabo Verde to buy cars directly from Europe or the United States (mostly used and therefore cheaper cars) without going through car dealerships. In this context, the participants believe that they could obtain vehicles at a lower price if the support for the purchase of EVs was provided even without car dealerships. According to the beneficiaries interviewed, every detail should be made public, including the fact that the project made the EV acquisitions possible[13].

Despite the ease of contact, a significant number of stakeholders claimed to be unaware of the details of the project, including its management methods, plans and timetable. For many, knowledge of the project consisted of sporadic workshops and information from the media. Some did not find their interactions with the project team very constructive as they played a passive role, just receiving information, whereas they would have preferred to also contribute with their suggestions. This finding is more pronounced on islands other than Santiago and communities outside Praia's capital.

A broad consensus is that the project would benefit from being more proactive in engaging with stakeholders and bringing them to the table. The project would benefit from improving communication, dissemination, awareness raising, and visibility in the different aspects of EVs, especially in the country outside Praia. The project faces constraints due to the limited budget dedicated to awareness campaigns, such as participation in fairs, congress and even the promotion of messages on social media. Moreover, the project's own EV cannot be used for demonstration purposes.

Due to its delayed start, the project's ability to deliver in the proposed timeframe has been questioned. In addition, for some Interviewees, the long-term vision is not robust enough. While the project team is confident of achieving the target, probably by focusing on taxis with higher emission potential, some car dealers suggest that further efforts should be made to involve more dealers in the car rental market (i.e., more EVs per EMF applicant) to increase the market share of EVs.

The first meeting of the project's Steering Committee took place on 10 February 2023, with the participation of the General Directorate of Road Transport, the National Directorate of the Environment, the Ministry of Finance, and the Association of Municipalities of Cabo Verde. Thus, the Steering Committee has yet to demonstrate its value in facilitating dialogue among political decision-makers, especially concerning the divergent opinions and communication challenges, including emissions calculation, charging network regulations and boosting public EV demand.

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[13] Among other things, the beneficiaries would like to know all the values involved, including the cost of acquisition by the dealers, in order to compare them with the values they could obtain by direct purchase in Europe or elsewhere).

Based on the evidence presented above, the ELE team considers the project's performance in terms of efficiency to be only partially adequate, leading to an 'Amber' rating. Although it is still possible to deliver the outputs, it will not be possible to deliver them in the timeframe that has been defined.
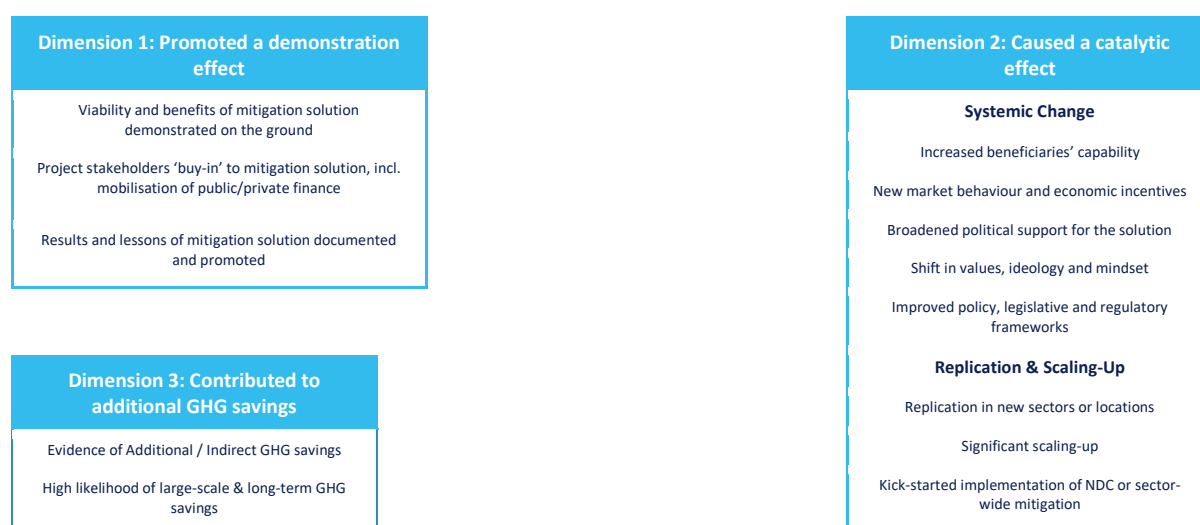
3.4   Impact of the project

Impact	4. What evidence is there that the project will likely contribute to the intended impact in the ToC (incl. transformational change)?

The project is expected to build a self-sustained market for EVs in Cabo Verde, bringing about a less carbon-intensive development pathway for the mobility sector. Below we use the Transformational Change Measurement Framework illustrated in

Figure 2. Transformational Change Measurement Framework

Dimension 1: Promoted a demonstration effect	Dimension 2: Caused a catalytic effect
Viability and benefits of mitigation solution demonstrated on the ground	**Systemic Change**
Project stakeholders 'buy-in' to mitigation solution, incl. mobilisation of public/private finance	Increased beneficiaries' capability
	New market behaviour and economic incentives
Results and lessons of mitigation solution documented and promoted	Broadened political support for the solution
	Shift in values, ideology and mindset
	Improved policy, legislative and regulatory frameworks

Dimension 3: Contributed to additional GHG savings	**Replication & Scaling-Up**
Evidence of Additional / Indirect GHG savings	Replication in new sectors or locations
High likelihood of large-scale & long-term GHG savings	Significant scaling-up
	Kick-started implementation of NDC or sector-wide mitigation

(Section 1.2.1) and further explained in Annex A to unpack the different dimensions of the project's pathway to such transformational impact.

Dimension 1: Promoted a demonstration effect.

Through its national communication campaign and EMF programme, the project is **raising awareness** concerning electric mobility and its benefits, increasing the number of Cabo Verdeans applying for the rebate programme on top of existing tax exemptions to acquire their first EV. Moreover, the project convinced most national car dealerships to join the programme, decisively enhancing awareness about the project's EMF among potential EV users. However, **some stakeholders and potential beneficiaries are still reluctant** about the technical aspects and continuity of service (especially concerning maintenance issues), autonomy and charging possibilities (both private and public), and others about these vehicles' quality and security efforts.

There is a degree of **commitment and interest from the private sector**, with private companies considering or partially replacing their fleets. Taxi operators are increasingly attracted to EVs once the fuel and maintenance savings are known[14]. Also, **the government has committed to its electric mobility policy and confirmed in its NDC** to completely substitute its fleet with EVs, having taken some timid steps towards phasing out its ICEVs[15]. Government leadership and example will catalyse EV procurement and ICEV substitution by private and corporate actors.

On the other hand, **high pricing is still perceived as a barrier**, especially in comparison with second-hand options or new buses. The reality is that price dictates the implementation and speed of this dynamic. Those who own an EV might consider the whole life cycle and operational costs when purchasing their vehicle (i.e. maintenance, parking, road tax, inspection). In addition, the so-called **triple crisis** – the COVID-19 pandemic, prolonged drought, and the Russian invasion of Ukraine – had severely affected the State's resources, reduced the average purchase power of Cabo Verdeans, and

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[14] For instance, there is already a project to electrify taxis in Sal as part of sustainable tourism. Another example is the company APP, which has about nine vehicles in Sal, including vans.

[15] For example, the government passed a resolution authorising the central procurement unit of the Ministry of Finance to procure 10 battery-electric vehicles for the new ministers in 2021 (resolution nr. 62/2021 of 18.6.2021).

impacted the financial capacity of many private companies. Therefore, to further increase the percentage of EVs to massify, the acquisition costs and the incentives must continue to be attractive.

Another limitation is efficient **public transport**, where a lack of model options is perceived as a barrier. It is very important to expand, e.g., to the HiAce Van, buses, and taxis, to reach wider segments of society. EVs will be effectively promoted if people have direct first-hand experience in driving an EV. Therefore, **public entities** should always prefer EVs over traditional combustion ones. However, the reality does not match the potential buyers' expectations, and a lack of political incentives to promote EVs, e.g., by mandating the inclusion of EVs in the purchase tender of new vehicles for the public fleet, was observed. EVs had existed for three years, but interviewees perceived few incisive government actions and buy-ins.

In summary, interim signals regarding the promotion of a demonstration effect could be observed, especially respective awareness raising and stakeholder commitment, although the local context with pricing and confined availability of EV models set its limitations to the project.

Dimension 2: Caused a catalytic effect

The project is generally perceived as on a good way forward and shows **early signs of a shifting attitude towards EVs**[16]. The project's biggest achievement is that seven dealerships in Cabo Verde now offer EVs and create a market supply. With the dissemination and communication of incentives and experimentation, new interests will be aroused in relation to the EMF, and the project has encouraged discussion about electric mobility. The EMF does not include micro-mobility, i.e. small, mostly three-wheelers that are used in Cabo Verde in retail, agricultural and fishery activities, due to their limited emissions avoidance and technical standards. Also, electrical two-wheelers, e.g. for unemployed young people to make deliveries, could not be explored due to these limitations. Consequently, **as the world market is changing in favour of electric mobility and the project continues to promote EVs nationally, the systemic change towards EVs in Cabo Verde appears likely in the future.**

ELE interviewees agree that Cabo Verde must transition towards EVs and see second-hand ICEVs as disadvantageous for the population and the environment. Many customers of car dealerships are already asking questions about EVs out of curiosity and interest, and more people are aware of the costs per km travelled favourable to EVs.

Nonetheless, **some people are still reluctant**. Many don't want to leave their comfort zone without having all the guarantees (which is normal, as transformational change is a process). It's not mistrust but rather some reservation and different people's attitudes towards taking risks and change.

The **charging station** contract was signed in June 2023. Once the 40 CSs included in the contract, together with additional CSs set up by private operators, are installed, the CS/EV ratio in Cabo Verde will favourably compare to countries with a larger territorial dimension, significantly improving EV viability. Having charging infrastructure in the country is strategically important. Starting earlier in the

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[16] For example, by the data on EV matriculations (since 2019, 120 EVs were registered: 95 in Praia, 11 in São Vincente, 12 in Sal, 1 in Fogo & Boa Vista), by the level of requests for information, and by private investments (for example in new individual charging stations, like from ECREEE and APP). The project estimates that in 2022 nearly EUR 2 million have been mobilised by private individuals and firms procuring EVs and installing charging solutions.

electric mobility transition is perceived as very good. It will help to streamline the process and increase the number of EVs, as insufficient and expensive charging stations are perceived as a barrier.

Public CS being set up in all the islands is likely to catalyse demand for EVs in smaller islands. Given its car fleet share, the project's EMF has been working with Praia-based dealerships. There is incipient EV registration in other islands, especially the tourist destination island of Sal. Thus, there are possibilities of expanding EMF or equivalent future subsidy support to other islands and including different types of EVs, as mentioned in the preceding paragraph. Promoting electric mobility in the smaller islands can go together with current efforts to increase their renewable share, making electricity, hence EV charging, less costly.

Nonetheless, the expansion of **renewable energy generation** and charging stations is sometimes hindered by architectural barriers. For instance, people who live in the buildings reported disagreements with planners and architects who said that the shape of the ceiling does not allow RE generation or doesn't know how private charging could be implemented. This is an important issue because, if not integrated with renewable energy, the project will not have as much impact on the environment and GHG emissions reduction as it potentially could. Therefore, the legal and regulatory framework still has potential for improvement in the context of EVs.

To sum up, there are early signs of several types of possible positive changes respective to the caused catalytic effect, especially regarding the world market trend of EVs, the complementing local plans[17] for renewable energy generation, and the favourable situation regarding charging stations per EV in the near future in Cabo Verde.

Dimension 3: Contributed to additional GHG savings

Changing habits in relation to climate change were observed. Renewable installed capacity is expected to keep rising according to government plans, with an increase in the percentage of renewable penetration in Cabo Verde's electricity grid. In addition, private investment is entering the market. There is already a micro-production system, and people can produce energy autonomously. From there, all the conditions are created for an energy transition to be a success factor for the country. The project can have a very good, positive impact on the energy system if linked with the **energy transition**.

Environmental sustainability is a critical success factor in energy use and efficiency, harnessing these resources and bringing benefits to the population. It will reduce fossil fuel consumption and other consumables (cue maintenance). In this regard, the project is perceived as already fulfilling its environmental function to **reduce GHG emissions**. However, the introduction of EVs will, of course, take time, and so will the reduction of GHG emissions into the atmosphere. The pollution ratio does not yet have a big impact because of the relatively low number of EVs on the islands. The late start of the 1st Funding Period, which started in June instead of March 2022, as well as significant supply chain issues are plaguing the EV market and have resulted in months-long delays in the delivery of EVs to car dealers and buyers. This had a direct impact on the reduced number of cars acquired through the

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[17] For example, the Power Sector Master Plan 2018-2040 with a timetable and list of new investments in renewable capacity complemented by a framework of annual tenders for the acquisition of additional renewable electricity capacity and the regulation on low-voltage installations (see also section 1.1).

rebate mechanism. Also, more efficient ways to reduce GHG emissions than electric mobility[18] were perceived and reported.

In summary, no signals can be expected so far regarding the contribution to additional GHG savings due to the short implementation period at the mid-point of the project. This is in line with the expectations of the TCMF for mid-term ELEs.

Following the instructions from the TCMF in Annex A, the ELE Team assessed the evidence to assign a value to the Core Mandatory Indicator M3 and compare it with the indicator's self-assessment given by the project team[19]. The project team has given a score of 1 for the year 2022 to the M3 indicator. Their reasoning was the limited implementation of the EMF. **Nonetheless, based on the evidence described above, the ELE Team assigns a rating of 2 to the Project's M3 indicator at its mid-term, i.e. the sought transformation is judged likely.** In fact, despite the different challenges described in the previous sections for the project in terms of promoting EVs, there is a strong base for EVs to continue growing, given the current levels of interest of the private sector and public-sector support.

In conclusion, the evidence confirms that the project achievements along the transformational change measurement framework are of the levels expected at Mid-Term (see Table 3). Therefore, the degree to which the supported activities are likely to catalyse impact beyond the project is scored "2 - some progress achieved", and the "impact" of the NSP has been marked as "green".

3.5 Sustainability of the project

Sustainability	5. What is the likelihood that the outcomes will be sustained after the end of the project funding period?

Project sustainability is concerned with measuring the extent to which project benefits (outcomes) are likely to continue after the end of the assistance.

In the perception of most interviewees and key stakeholders, the **policy goals and incentives are likely to be sustained in the medium-long term**, as people count on the fiscal incentives to continue (at least if the tax exemptions do not have a significant negative impact on the national tax revenue). The government will most likely keep the tax exemption (consensus opinion between all types of beneficiaries). According to the project team, **tax exemptions are, in general, more determinant than subsidies** in Cabo Verde, and the continuity of exemptions is fundamental. Even if there is a political

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[18] For example, an interviewee named monitoring energy theft in specific neighbourhoods and fighting losses of electricity production.

[19] The Core Mandatory Indicator M3 reads: "Degree to which the supported activities are likely to catalyse impacts beyond the projects (potential for scaling-up, replication and transformation)". The project team is asked to self-assess it using the following 0 to 4 scale: 0 = Transformation judged unlikely; 1 = No evidence yet available; 2 = Some early evidence suggests transformation likely; 3 = Tentative evidence of change – transformation judged likely; 4 = Clear evidence of change – transformation judged very likely.

change, there may be adjustments, but the interviewees believe there will be no going back because the energy transition predates this government and is a long-term policy[20].

There is some risk of regression in EV support should the government lift EV tax exemptions, leading to EV prices becoming not competitive with those of ICEVs. Vehicle import taxes are a significant source of fiscal revenue for Cabo Verde, and ELE respondents manifested doubts about the government's ability to continue with the tax exemption if the increasing share of EVs conveys substantial forfeiting of state income[21]. However, the government could still favour EVs by removing other prevailing tax exemptions for ICEVs.

Ultimately, it **all depends on the end price of cars** in the future national and international markets. If there is a price jump due to the end of the subsidy, it may result in a temporary stop in demand, as purchasing power has not gone up enough. Without incentives, and if EVs do not lower the manufacturing price, people will hardly be interested in buying them (as price is the decisive factor). Therefore, **the sustainability of the national EV market strongly depends on the national policy and the funding to continue the project.** The market requires incentives until it normalises. The current positive trend for electric cars sees their prices lowering, and the worst thing for the EV market in Cabo Verde would be a **"yo-yo" effect of incentives** (due to different donor initiatives and financing sources). Incentives should be slowly reduced so as not to cause demand shocks.

In conclusion, the project components are likely to be sustained after the end of the project as the respective evidence gathered indicates a rather low risk of backsliding or reversing. The EV market shows solid evidence of continuing its operation after the project timeline. Evidence confirms that the project achievements are of the levels expected towards mid-term, and therefore, the project's sustainability has been assessed as "green".

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[20] During the Parliamentary session on 22 June 2022, Prime Minister Ulisses Correia e Silva stated that the implementation of the National Plan for Sustainable Development, of which the increase in the production of renewable energy and the promotion of electric mobility are two main pillars, is essential to decrease the external oil dependence of the country. He emphasized the importance of electric vehicles (EVs), thus showcasing his strong support for this project. https://portais.parlamento.cv/canalwebtv/plenario.php

[21] In 2022, government revenue amounted to CVE 65 billion (~EUR 0.6 billion), of which CVE 18 billion (~EUR 163.2 million; 28%) and 2.6 billion (~EUR 23.6 million; 4%) were contributed by value added tax and special consumption tax respectively. The project estimates that the government has forfeited EUR 670,546 in taxes (0.4% of tax revenue) due to EV procurement in 2022.

4   Conclusions

Now that the evidence collected and analysed by the ELE has been explored, this section goes back to the project's Theory of Change to test to what extent the original causal pathways and assumptions behind them (see Section 1.1) have held.

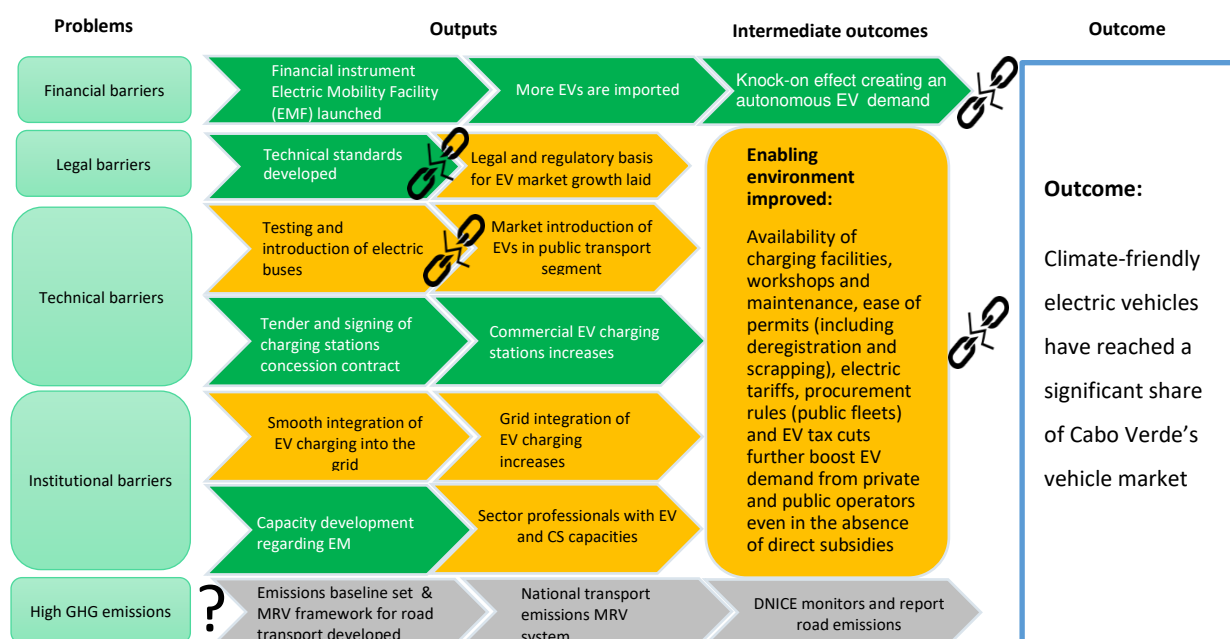**Figure 3. Overview of project Causal Pathways Assessment at Mid-Term**

Figure 3 presents an overview of the project's progress along its ToC causal pathways towards its intended outcomes. The RAG rating uses the same scale as the previous section (i.e. Good / Very Good = Green; Problems = Amber; Serious deficiencies = Red; Not enough info to rate = Grey), and the colours of the Intermediate Outcomes' shapes are the same colours used in Section 3.10 to rate the project's achievements for each Intermediate Outcome. This will be read as an assessment of the project's situation, i.e. at mid-term.

What transpires from Figure 3 is that the project has taken steps towards consolidating financial incentives that contribute to increasing the number of EVs in Cabo Verde. At the same time, project efforts have eased legal barriers, set the stage for a nationwide commercial charging station network and established EV-linked TVET.

However, the pace of change and progress towards the project outcome is slower than planned. It may not allow reaching the expected outcome and contributing to the project's mitigation impact. Project limitations are related to a) late project start, b) divergent government positions on operational issues around the grid and charging stations and negative incentives for ICEVs, c) limited reach of the project's awareness and communication strategy, and d) unexpected supply and price issues for electric buses and microbuses.

Nevertheless, electric mobility is happening in Cabo Verde. Project stakeholders have an established and widespread understanding of the inevitability and desirability of electric mobility. National

government stakeholders understand the project as a very relevant part of the government's efforts to advance towards phasing ICEVs out while increasing the renewable energy share.

The project's flagship output, the EMF, has arrived late but has succeeded in recruiting most of the national car dealerships, which are now active partners of the project and the government's electric mobility policy, by reaching out to an increasing number of private and corporate actors interested in electric mobility. **In the first year of operation, the project has catalysed over 50% of the total EV demand (18 EVs).** A wider impact of the EMF is hampered by the limited reach of the project's awareness and communication campaign and the government's timid implementation of their EV goals for the public fleet. Moreover, the **absence of official brand support** limits the capacities of dealerships to provide post-sale services and ease anxieties regarding mechanical and battery failures among stakeholders and potential beneficiaries. As it was done in Rwanda, there is an unconfirmed intention of at least one European EV manufacturer to establish official support and warranty in Cabo Verde. Official support would also strengthen the professional capacities of the TVET centres, which, under MoU with the project, are co-designing training modules for EV mechanics and charging station installers.

Most stakeholders and third parties interviewed during the ELE's fieldwork agree that the EMF is not sufficiently known, and wider dissemination will motivate more private and corporate actors to invest in EVs. The project's awareness campaigns are partly limited by the project's own operational rules (e.g., not being able to use the project's EV for promotional purposes) and budget limitations (limiting participation in events and the number of workshops). Project workshops, which started only this year, have raised the interest of potential EV users, including taxi operators.

Considering the low pace of private EV procurement through the project EMF, the project team (GIZ and DNICE) acknowledges the **taxi sector as critical in contributing to the project's mitigation goal** and, therefore, plans to increase the subsidy. The adoption of electric vehicles can be encouraged by municipalities, as exemplified by the cooperative effort between the Santa Cruz municipality, which incentivises taxi license applicants to switch to EVs, and the EMF, which benefits from that transition.

The project has faced unexpected challenges related to the availability and prices of electric buses: under current conditions, public transport operators do not find viable electric alternatives for their operation despite their interest and understanding of the benefits of electric mobility conveyed by the project. The project and urban transport concessionaires are determined to demonstrate at least the operation of one electric bus for each of the two most important cities (Praia and Mindelo) but extending the operation will require more resources and time. Extending the implementation period and increasing the project's financial resources could also enable the project to devise viable solutions for the interurban public transport sector ("HiAce" equivalents). The project has been exploring several options, including exchanges with the Sustainable Electric Transport for Nepal (SET4NPL) project[22], which would facilitate the phasing out of conventional ICE micro and minibuses in Nepal in the future.

While agreeing in principle with the national goal of a complete vehicle fleet substitution in 2030 (within the next seven years), government entities have been timid in their EV procurement, public

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[22] If approved for implementation.

entities having ordered merely 6 EVs through the EMF, out of the planned 120 by the end of the project. Lack of a clear directive, budget limitations, and access to charging facilities are hampering a more decisive government response, which would strongly catalyse private demand. However, the government's commitment is demonstrated in maintaining their fiscal incentives for EVs, which at an estimated EUR 670,546 forfeited, twelve times the amount invested in public EV procurement. It is probable that fiscal incentives will continue in the near future and gradually decrease after 2026. This is because influential leaders support them and there is agreement to ultimately replace ICEVs with EVs. This has been translated into some measures towards further taxing new private and public service ICEVs (increasing import tax and eliminating exemptions for public utility ICEVs).

However, the expansion of a public network of commercial charging stations has been marred by important delays. While the contract signature for the project-sponsored 40 charging station network is imminent, significant differences in perception on tariffs (regulated or free market), and current and foreseeable electrical grid capacities among national government stakeholders persist, creating a climate of incertitude that dissuades potential operators. This reinforces the operators' perception of high costs and exceedingly long-term return on investment, especially in islands other than Santiago and São Vicente. However, corporate actors are already installing or operating an incipient CS network on the Island of Sal (the tourism hub) and Santiago (the national capital).

Despite those differences, electric mobility is understood by many private, corporate, and state actors as a significant, strategic move that, together with the expansion of renewable installed capacity, plays an important role in the country's sustainable development path. Conditions in Cabo Verde diverge significantly from West African ECOWAS countries regarding human development indicators, infrastructure, human resources, and level of electrification. Thus, national and international stakeholders do not believe the project strategy could work in ECOWAS countries where conversion (retrofit) of light and heavy-duty ICEVs could be of interest, considering the compositions of their fleet and the possibility of fostering local supply chain and TVET capacities. However, the project experience could be replicated within Cabo Verde (e.g., on its other islands) or in other Small Island Developing States (SIDSs) with similar renewable energy possibilities and objectives. SIDS with growing renewable energy shares and where distances between destinations are within EV autonomy could well replicate the project's success in promoting EVs through subsidies and tax exemptions. Within Cabo Verde, most vehicles are driven in the islands of Santiago and São Vicente, but smaller islands could transition to electric mobility if project solutions (subsidies through official dealerships, charging stations, EV professionals, and electric public transportation) are extended.

In terms of implementation, the project team has performed effectively, but without flexing the project Steering Committee to support crafting common understanding on regulatory issues and promoting synergies and communication.

5 Lessons and recommendations

5.1 Key lessons

The evidence gathered during the ELE, along with the key findings presented in Section 3 and the conclusions in Section 4, have been used by the ELE Team to draw the lessons below.

5.1.1 Lessons for the project team to achieve the goal of the project.

1. **Enhanced awareness and communication are key to accelerating the dissemination of EV advantages and easing anxieties around the autonomy, price, and performance of EVs.** As a means of communication, the workshops organised by the project proved to be more effective than the participation in trade fairs. The message could also be reinforced by EV demonstrations during future workshops.

2. **Reaching out to municipal governments to exchange views and coordinate action could decisively foster the expansion of EVs among taxi operators**, considered critical to approach the project's mitigation targets.

3. **Extending time and additional funding could help consolidate the incipient steps towards public transport EV demonstration in the urban and inter-urban sectors.** Strengthening electrification of the public transport sector involves increasing incentives and fostering alliances to identify viable alternatives.

4. **The project's Steering Committee can be used to promote dialogue among project stakeholders on critical issues for solidifying EV transition**, such as strategic, policy, and regulatory areas.

5.1.2 Lessons for the project partners for supporting the project's success.

1. **Promoting EVs needs stronger signals from government bodies**, including a more decisive procurement drive backed by clear, practical actions (in addition to the directive) in favour of EVs and more decisive disincentives for ICEVs.

2. **Creating a full-time electric mobility focal point/ coordinator/ champion** at the Ministry of Industry, Commerce and Energy (or even the Prime Minister's Office) could enhance the political leverage and reach of the project team and bridge human resource gaps at DNICE.

5.1.3 Lessons for the Mitigation Action Facility for the review, approval, and management of future interventions

1. **Promoting electric mobility through fiscal incentives and subsidies can effectively achieve significant mitigation goals in SIDSs** that have access to renewable energy sources and are effectively expanding their renewable installed capacity.

2. **Using the Mitigation Action Facility access to donors, political and economic actors could promote brand service extension by main EV manufacturers in implementation countries.** For instance, the Mitigation Action Facility or its donors could make contact, start conversations or otherwise involve EV manufacturers to inform them about the progress made under this project and initiate a dialogue on business models for African countries, SIDS or other middle- or low-income countries.

3. **Future projects could have more flexibility in adapting targets and budget** to the reality of implementation if duly justified. For instance, this project could have changed the targeted EV number, invested more in subsidies for electric buses, or awareness campaigns when the underlying assumptions proved to be wrong (i.e. high demand for small EVs, affordable electric bus equivalents available, more effective dissemination of project messages to potential EV users).

5.1.4 Lessons for improving other or future projects' design and implementation

1. **The promotion of electric mobility needs to be adapted to local conditions and not necessarily involve private passenger cars.** For instance, in other socioeconomic contexts, the project scope could include or even focus on two and three-wheelers and small-scale freight vehicles.

5.2 Recommendations

5.2.1 Recommendations to the project team to achieve the goal of the project

1. **The project should consider revamping its dissemination strategy by expanding its planned workshops' reach and including EV demonstrations** in partnership with municipal governments and car dealerships.

2. **The project should prepare a request for an extension of at least a year** (ELE team's rough estimation) to enable consolidation of its policy action and electric public transport demonstration. The best way to ensure that GHG reduction targets are met is to increase support for higher mileage vehicles such as taxis and buses. Therefore, additional subsidies (to be estimated) and attention are likely to be required to target taxis and buses.

3. **The project should consider increasing the frequency of project steering committee meetings to at least twice a year** to foster improved communication and synergies with other national and local government bodies.

5.2.2 Recommendations to the project partners for supporting the success of the project

We provide these recommendations to the national project partners because their contribution is critical in sustaining the project outcomes in the long term and fostering the envisaged transformational change. However, we do not expect them to provide a written response to these recommendations in the "management response" to the ELE.

1. **The national government should consider stepping up their committed EV fleet substitution** by enacting directives to out-phase their ICEV fleet with command instruments (procurement directive) or economic instruments (higher taxation of ICEVs).

2. **The national government should consider the creation of a full-time electric mobility focal point/ coordinator/ champion** at the Ministry of Industry, Commerce and Energy that could promote electric mobility at all levels of government.

5.2.3   Recommendations to the Mitigation Action Facility for the review, approval, and management of future interventions

1. **Consider promoting the project in SIDSs that have access to renewable energy sources and are effectively expanding their renewable installed capacity.** Consider promoting other electric mobility forms of retrofitting ICEV fleets in other contexts. As the Mitigation Action Facility does not design or conceive projects, this could take the form of dissemination of project results, including this ELE report.

2. **Promote the involvement of EV manufacturers from Europe and other countries** by participating in awareness-raising and industry events.

3. **Consider granting more flexibility for projects to adapt targets**, duly justified in the face of unplanned implementation challenges or design mistakes **and adapt budget allocations** to implementation challenges. Also, the measures to be adopted should not only be adapted to each specific context but should also be based on a short- and medium-term analysis of the EV market, which is currently very dynamic, with the price gap closing rapidly and much faster than the deployment of EVs. Conditions can change rapidly, and implementation needs to be flexible enough to keep pace, by shifting resources from financial support measures to, for example, awareness, education, or training measures.

Annex A   Capturing Project-induced Transformational Change

Introduction

This is a brief guidance developed by AMBERO/OPM outlining a framework to consistently evaluate Mitigation Action Facility-funded projects' progress towards bringing about transformational change.

Transformational change is embedded in the Mitigation Action Facility's goals and Theory of Change (ToC), and projects are the main way through which the Mitigation Action Facility will achieve this transformational change. Therefore, the projects need to be aiming to achieve this level of change, and the Evaluation and Learning Exercises (ELEs) of such projects should evaluate their progress.

In a way, key elements of transformational change are already monitored through the project's Mandatory Core Indicators M1-M5, part of the Mitigation Action Facility M&E Framework[23]. However, they only cover partial elements of transformational change. Therefore, clearer guidance in identifying the signals or evidence of project-induced transformational change is needed.

This brief document clarifies how transformational change is expected in projects and provides guidance to both project and ELE teams on how to characterise the elements and evidence of project-induced transformational change.
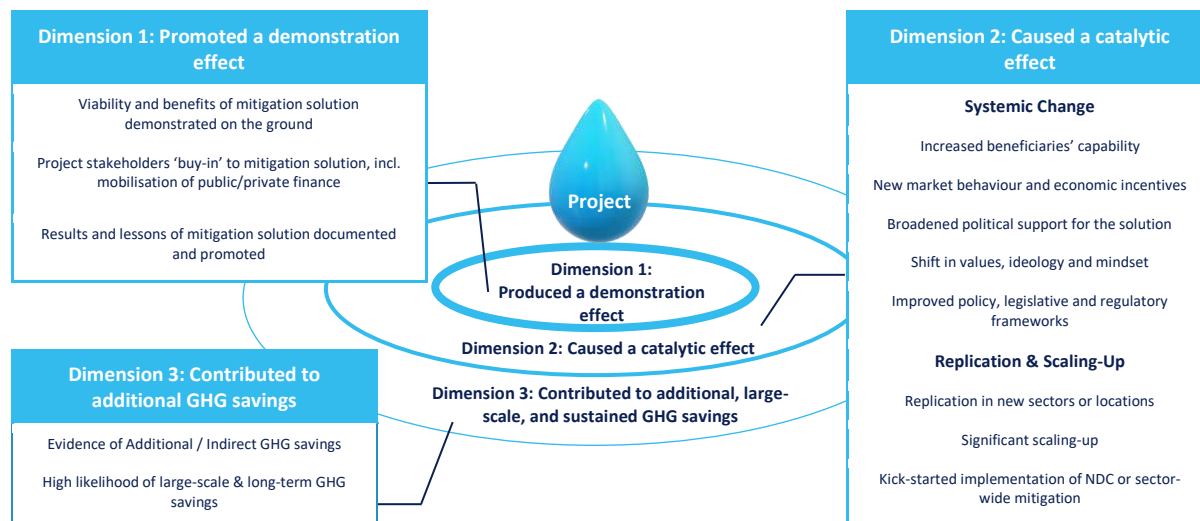
Breaking down project-induced transformational change

The Mitigation Action Facility defines transformational change as "*Catalytic change in systems and behaviours resulting from disruptive climate actions that enable actors to shift to carbon-neutral pathways*"[24].

The Mitigation Action Facility's ToC explains how transformational change is expected to be achieved through its outputs and outcome. The ToC is broad, and there are different ways transformational change can be achieved through the projects, which are simplified into the three *dimensions* summarised in the figure below.

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[23] https://mitigation-action.org/our-approach/monitoring-evaluation-learning/
[24] https://mitigation-action.org/wp-content/uploads/Mitigation-Action-Facility_transformational change-factsheet.pdf.

Figure 4. Dimensions of project-induced transformational change

Dimension 1: Promoted a demonstration effect		Dimension 2: Caused a catalytic effect
Viability and benefits of mitigation solution demonstrated on the ground		**Systemic Change**
		Increased beneficiaries' capability
Project stakeholders 'buy-in' to mitigation solution, incl. mobilisation of public/private finance		New market behaviour and economic incentives
		Broadened political support for the solution
Results and lessons of mitigation solution documented and promoted		Shift in values, ideology and mindset
		Improved policy, legislative and regulatory frameworks
Dimension 3: Contributed to additional GHG savings		**Replication & Scaling-Up**
		Replication in new sectors or locations
Evidence of Additional / Indirect GHG savings		Significant scaling-up
High likelihood of large-scale & long-term GHG savings		Kick-started implementation of NDC or sector-wide mitigation

Center diagram:
- **Project**
- Dimension 1: Produced a demonstration effect
- Dimension 2: Caused a catalytic effect
- Dimension 3: Contributed to additional, large-scale, and sustained GHG savings

Three dimensions interact and reinforce each other to produce project-induced transformational change (Figure 4). These are described below with an indication of what is expected to be achieved at the project's mid- and end-point (see Table 8 and Table 9 for more details on scoring criteria).

- **Dimension 1: Promoted a demonstration effect.** The most direct way in which a project can contribute to transformational change is to produce a demonstration effect which will imply that:

  o The project has **demonstrated** or proven the viability and benefits of a particular **mitigation 'solution' (e.g. models, practices or technologies)** through implementation on the ground (e.g. using pilot projects), thereby directly contributing to GHG emissions savings;

  o There is **evidence of buy-in by key project stakeholders**, e.g. by mobilising additional public/private finance along with the project Financial Cooperation Component;

  o The demonstrated **results and lessons of the mitigation solution have been documented** (e.g. in knowledge or communication products) **and promoted externally to a wider audience**.

  By mid-line, projects are expected to show interim signals of achieving this demonstration effect, which should have become clear evidence (i.e. advanced signals) by the end-line.

- **Dimension 2: Caused a catalytic effect.** To amplify the impact of the mitigation solution demonstrated (Dimension 1), the project needs to cause a virtuous catalytic effect in the operating country or region. This can take the form of one or more of the following catalytic changes:

  o **Replication and/or significant scaling-up** of the project's demonstrated solution in other sectors or locations, or of the project itself. This could include kick-starting sector-wide mitigation or the NDC; and/or

  o As a result of the project improving enablers and/or eliminating barriers to the uptake of the mitigation solution, it will result in wider **'systemic' change**, which could be supported by one or more of the following: a) Increased beneficiaries' capability; b) new market behaviour and economic incentives; c) improved policy, legislative and

regulatory frameworks; d) broadened political support for the solution; e) shift in values, ideology and mindset.

By mid-line, projects are expected to have produced some early signals of one or more of these changes (or that they are likely in the near future), which by the end of the project should have been strengthened into interim signals.

- **Dimension 3: Contributed to additional GHG savings**. As a result of contributing to Dimension 1 and Dimension 2, the project will indirectly influence *additional, large-scale and sustained GHG savings*[25].

During the project's lifetime, projects are not expected to have achieved this. Yet, by the end of the project, there should be early signals of additional (i.e. indirect) GHG savings and evidence that these will become large-scale and sustained GHG savings in the future.

Box 1: Connection between transformational change Measurement Framework and Knowledge Management and Learning Strategy

One of the key objectives of the Knowledge Management and Learning Strategy (KMLS) is to ensure that learning from both successes and failures is taken into account, changes are implemented accordingly, and innovative approaches are replicated. There is therefore an important connection between the ELEs and this strategy, and the learning documented through the ELEs is expected to be used by the Mitigation Action Facility in its function of 'Knowledge and Learning Hub' for the international climate finance community explained in the strategy. In particular, project-specific learning should be proactively shared and discussed with other projects (at least with those funded by the Mitigation Action Facility). The KLMS also expects to engage with and influence international debates on climate finance and transformational change. The Mitigation Action Facility will use and synthesize learning on supporting transformational change, documented through the ELEs, to inform this engagement.

Measuring project-induced transformational change

As shown, the transformational change dimensions come directly from the Mitigation Action Facility ToC. As the projects are expected to be aligned to the overall Mitigation Action Facility ToC, it should be possible to map the dimensions of transformational change in the project ToCs. All projects must monitor their progress using their Monitoring and Evaluation (M&E) Plans which include Mandatory Core Indicators and project-specific indicators.

The ELE teams will be evaluating and learning from the projects' progress in supporting transformational change, which will include reviewing progress against the indicators and milestones set out in their M&E Plans. In addition, this can be complemented (and verified) with more qualitative ELE questions and data sources. **Error! Reference source not found.** below provides some guidance to ELE teams in terms of criteria and evidence for assessing the project-induced transformational change. This includes the three dimensions but also the scoring for the Core Mandatory Indicator M3, which can be seen as the summation of results for the three dimensions.

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[25] Additional = the GHG savings achieved are in addition to those achieved by the direct implementation of the project.
Large-scale = the additional GHG savings will have a significant impact on overall GHG savings in the geography/sector.
Sustained = there is no chance of the GHG savings being reversed.

Table 7. Guidance for ELE teams for measuring project-induced transformational change

Transformational change dimension	Element within transformational change dimension	Alignment with OECD DAC Criteria / ELE report section	Where should it feature in project ToC and M&E plans	How to measure success	Expectations at mid-line and final ELE
1: Promoted a demonstration effect	**Viability and benefits of mitigation solution demonstrated on the ground**	Effectiveness	• Milestones set for outputs and/or Intermediate Outcomes (if used) should represent the scale of uptake needed to demonstrate the solution is viable (meaning it has been shown to work in practice at a large scale in diverse contexts and provide the expected economic, social and climate benefits) • Also aligns with M1: Reduced Direct GHG emissions and M2: Number of people directly benefiting	*Quant*: Achievement of project milestones for the adoption of the mitigation solution by target users and resulting direct GHG emission savings Qual: Feedback from target users that viability and benefits have been demonstrated.	• Mid-line: Interim Signals • End-line: Advanced Signals
1: Promoted a demonstration effect	**Results of mitigation solution documented and promoted**	Effectiveness	• Milestones set for outputs on producing knowledge and learning documents and engaging with wider stakeholders to share this insight. • Seek alignment with the KMLS.	*Quant:* Achievement of project milestones for knowledge and communication products/activities *Qual*: Feedback from other stakeholders (e.g. other funders) on their awareness and understanding of the project and solution.	• Mid-line: Interim Signals • End-line: Advanced Signals
1: Promoted a demonstration effect	**project stakeholders 'buy-in' to mitigation solution**	Effectiveness	• Milestones set for outputs and/or Intermediate Outcomes for the volume of finance expected to be mobilised and/or other examples of 'buy-in' (e.g. policy statement). • Also aligns with M4-5: Public and Private finance mobilised	*Quant*: Achievement of project milestones for public and private finance mobilised Qual: Feedback from government and other stakeholders that they are convinced of the viability and benefits of the solution	• Mid-line: Interim Signals • End-line: Advanced Signals

Transformational change dimension	Element within transformational change dimension	Alignment with OECD DAC Criteria / ELE report section	Where should it feature in project ToC and M&E plans	How to measure success	Expectations at mid-line and final ELE
2: Caused a catalytic effect	**Systemic change underway to enable widespread adoption of mitigation solutions:** • Improved policy, legislative and regulatory frameworks • New market behaviour and incentives • Increased institutional capacity and management practices • Shifts in values, ideology and mindset • Broadened political support for the solution	Effectiveness	• Milestones set for outcomes should indicate what needs to change to enable widespread uptake of the mitigation solution.	*Qual*: Evidence of contribution to achieving expected systemic change and unexpected changes.	• Mid-line: Early Signals • End-line: Interim Signals
2: Caused a catalytic effect	**Replication and scaling-up of mitigation solution and/or project** • Replication in new sectors of the mitigation solution and/or project itself • Significant* scaling-up of the mitigation solution and/or project itself • Kick-starting and influencing sector-wide mitigation ** Significant compared to the size of the project and the overall target user group. For example, if the project promoted the installation of 2,000 Solar PV systems (representing approximately 2% of all target users), significant replication would imply that it has reached around 20% of target users. However, there is no quantitative target to meet, and a rationale can be provided to justify it meeting these criteria.*	Effectiveness Sustainability	• Milestones set for outcomes for replication/ scaling-up by others of project activities.	*Quant*: Volume of scaling-up (e.g. # of new geographies/ beneficiaries or $ of new funding) *Qual*: Feedback from other funders and programmes on the influence of the project in their decision to scale up activities and/or invest in the project's sector.	• Mid-line: Early Signals • End-line: Interim Signals

Transformational change dimension	Element within transformational change dimension	Alignment with OECD DAC Criteria / ELE report section	Where should it feature in project ToC and M&E plans	How to measure success	Expectations at mid-line and final ELE
3: Indirectly contributes to additional, large-scale and sustained GHG savings	**As a result of the changes from dimensions 1 and 2, there is evidence of additional and potentially large-scale and sustained GHG emissions savings**	Impact	• Milestones set for Impact should represent the scale of GHG emissions savings required for sector decarbonization. • Also aligns with M1: Reduced Indirect GHG emissions and	*Quant:* Achievement of project milestones for indirect additional GHG emissions savings *Qual:* Given progress for dimensions 1 and 2, an assessment of the likelihood that this will result in additional GHG savings. This is informed by feedback from wider stakeholders in the sector.	• Mid-line: No signals • End-line: Early Signals
Overall Transformational Change potential	**M3: Degree to which the supported activities are likely to catalyse impacts beyond the projects (potential for scaling-up, replication and transformation)**	Impact		*Mixed:* Based on whether the expected minimum level of signals for each transformational change dimension is found, the ELE gives: 1) a RAG rate to the 'Impact' evaluation criterion; and 2) a rate from 0 to 4 to the M3 indicator.	

Guidance for describing and scoring progress towards transformational change in ELE reports

Although transformational change is ultimately related to the project's Impact, **evaluating progress towards it cuts across different parts of the ELE report related to Evaluation Questions on Effectiveness, Sustainability and Impact (see table above).** In particular, the Effectiveness and Sustainability sections of the ELE report will describe key aspects of dimensions 1 and 2 (which relate to the projects' outputs, intermediate outcomes and outcomes). Therefore, the Impact section will provide an analytical synthesis of the three transformational change dimensions referring to the previously described evidence and assign an overall score to the project's transformational change potential. ELE reports' authors should avoid duplications across the sections and cross-reference to other relevant parts of the report if some of the evidence has already been discussed.

Each dimension should be described and assessed according to the following "signal levels":

Table 8. Transformational Change "Signals" assessment by ELEs

Signal level	Definitions
No evidence	Evidence suggests little to no progress is being made in line with the ToC causal pathways to Transformational Change.
Early signals	There is emerging evidence of the transformation related to the dimension, or the foundations for the transformation have been laid by the project. Still, no signals of the change are present.
Interim signals	Evidence shows some signals that the transformation related to the dimension is underway, and it is likely to continue.
Advanced signals	Evidence shows strong signals that the transformation related to the dimension is underway, and there is little doubt that it will continue.

ELEs expect projects to have achieved at least the "signal levels" in Table 9**Error! Reference source not found.** by the project's mid-point and end-point for each dimension.

Table 9. Minimum expected signals of project-induced transformational change

Dimension	Mid-point	End-point
1: Promoted a demonstration effect	Interim signals	Advanced signals
2: Caused catalytic effect	Early signals (of one or more of the types of possible changes)	Interim signals
3: Contributed to additional GHG savings	None	Early signals

Within the relevant dimension's sub-sections, these signal levels should be presented and justified by referring to the evidence provided throughout the report (e.g. in the Effectiveness and Sustainability sections). Below are some guiding questions to support this (aligned to measures presented in Table 7).

For presenting the evidence on **Dimension 1**, the report could provide a narrative answering the following questions:

- Is the project aligned with the expected direct GHG savings per M1 and the number of beneficiaries reached per M2?

- Have the key project stakeholders (i.e. those closest to the project implementation) shown concrete evidence of buy-in/adoption of the project's mitigation solution? Is this demonstrated by public and private sector actors investing resources into it, as per M4 and M5?

- Is the project documenting the key results and lessons from the process of demonstrating the validity of the mitigation solution and sharing these with wider stakeholders?

- Do the answers to the above questions constitute interim/advanced signals of Dimension 1 for the mid-line and end-line ELEs, respectively?

Similarly, for **Dimension 2**, the narrative could present evidence around the following questions:

- Has the project contributed to improving/removing systemic enablers/barriers to the widespread uptake of its demonstrated mitigation solution? What wider effects might this produce?

- What is the evidence that the project's mitigation solution will be scaled-up and/or replicated in new sectors and/or locations?

- Is there evidence that the project has informed or kick-started the implementation of the NDC or sector-wide mitigation?

- Do the answers to the above questions constitute early/interim signals of Dimension 2 for the mid-line and end-line ELEs, respectively?

Concerning **Dimension 3**, as no signals are expected at mid-term, the following questions are suggested for the analysis in <u>Final ELEs only</u>:

- Is the project in line with the expected indirect GHG savings per M1?

- What is the evidence that the project's mitigation solution will generate additional and large-scale GHG savings in the long term?

- Do the answers to the above questions constitute early signals of Dimension 3?

Finally, the assessment would conclude by providing an overall rating of transformational change potential. This aligns with M3: "Degree to which the supported activities are likely to catalyse impacts beyond the projects (potential for scaling-up, replication and transformation)".

The project will likely have provided a self-score for M3 within their routine M&E reporting. Therefore, the ELE teams can discuss their rationale for this score with the project teams and then provide their independent judgement.

To do this, the ELE authors should look back on whether the expected minimum level of signals for each transformational change dimension (Table 9) was found by the ELE and, on that basis, rate from 0 to 4 the M3 indicator using the scale recommended in the Mitigation Action Facility M&E Framework:

- 0 = Transformation judged unlikely;

- 1 = No evidence yet available;

- 2 = Some early evidence suggests transformation likely;

- 3 = Tentative evidence of change – transformation judged likely;

- 4 = Clear evidence of change – transformation judged very likely.

Based on that score, a Red-Amber-Green (RAG) rating will be assigned to the Impact evaluation criterion. The RAG rating can follow the guidelines in the matrix below (Table 10) while leaving some flexibility to account for the project-specific trajectories of progress.

Table 10. Indicative project's Impact RAG rating based on its M3 indicator score

M3 score	0	1	2	3	4
Mid-term ELE	🟥	🟧	🟩	🟩	🟩
Final ELE	🟥	🟥	🟧	🟩	🟩

Legend: 0 = Transformation judged unlikely; 1 = No evidence yet available; 2 = Some early evidence suggests transformation likely; 3 = Tentative evidence of change – transformation judged likely; 4 = Clear evidence of change – transformation judged very likely.

Annex B   Evaluation and Learning Exercise Matrix

This evaluation and learning exercise matrix is based on the Theoretical Framework provided (version April 2022). It is a working tool that allows the evaluators to focus on a feasible target and assemble information for each question that can be synthesised in the final report, hence creating an integrative overview of the project at large.

ELEQ No.	Evaluation Question	Evaluation criteria	Original hypotheses	Who can answer this question	Source of information Data gaps
			1 RELEVANCE		
1	To what extent does the project address an identified need?	• The project's design responds to the goals and interests of its institutional and private beneficiaries. • The project's design identifies and addresses all relevant barriers preventing the wide adoption of EVs in Cabo Verde.	• EVs are a primary means of achieving the national NAMA expressed in the NDC and other policy instruments. • Municipal planning instruments align with national mitigation measures.	• Implementing partner (DNICE) • project team • National government policy-making bodies (DNA, DNP) • National government regulatory bodies (ARME, DGTR, MoF) • Municipal governments • Municipal public transport operators • Entities implementing related or complementary projects. • Car dealerships • Charging station operators • EMF applicants	• Semi-structured key informant interviews • Focus Group Discussion with EMF applicants. • Government policies and regulatory instruments • Municipal plans • Project reports • Reports from other relevant organisations and related or complementary projects

ELEQ No.	Evaluation Question	Evaluation criteria	Original hypotheses	Who can answer this question	Source of information Data gaps
1.1	What factors can alter the alignment of the project with national/ private goals and interests?	• The project strategy can accommodate foreseeable changes in drivers of EV demand, including prices.	• Policy, regulatory and tax environment remains favourable to EVs.	• Implementing partner (DNICE) • project team • National government policy-making bodies (DNA, DNP) • National government regulatory bodies (ARME, DGTR, MoF) • Municipal governments • Municipal public transport operators • Entities implementing related or complementary projects. • Car dealerships • Charging station operators • EMF applicants	• Semi-structured key informant interviews • Focus Group Discussion with EMF applicants. • Government policies and regulatory instruments • Project reports • Reports from other relevant organisations and related or complementary projects
			2 EFFECTIVENESS		
2	To what extent has the project been achieving intended intermediate outcomes (and unintended ones)?	• EV demand is rising due to financial, regulatory, and awareness project incentives. • There are early signals of a self-sustaining growing EV demand. • There are early signals of a shift in attitudes towards EVs •	• project actions are the main driver of change in demand and registration of new EV	• Implementing partner (DNICE) • project team • National government policy-making bodies (DNA, DNP) • National government regulatory bodies (ARME, DGTR, MoF) • Municipal governments • Municipal public transport operators • Entities implementing related or complementary projects. • Car dealerships • Charging station operators • EMF applicants	• Semi-structured key informant interviews • Focus Group Discussion with EMF applicants. • Government policies and regulatory instruments • Project reports • Reports from other relevant organisations and related or

ELEQ No.	Evaluation Question	Evaluation criteria	Original hypotheses	Who can answer this question	Source of information Data gaps
					complementary projects
2.1	3.1 In what circumstances would the project outputs contribute to achieving the project outcomes? 3.2 How likely will those circumstances prevail during the project's lifetime and beyond?	• Project outputs are a necessary condition for the achievement of the project outcome, i.e., the project activities will likely improve access to EVs • Project assumptions are realistic, based on factual analysis, and likely to hold (see next column).	• Existing EV demand is depressed by project-identified barriers. • Supply constraints for EVs, EV charging stations, and parts differ from those for internal combustion vehicles. • The project can influence regulatory processes affecting EV permits, electrical tariffs, EV charging operations, tax incentives for EVs, public procurement (favouring EVs), and EV waste (deregistration and scrapping) • Private workshops and EV charging station operators foresee sufficient return on investment to service EVs • Private and public EV fleets can be maintained effectively and are not significantly more costly than internal combustion fleets	• Implementing partner (DNICE) • project team • National government policy-making bodies (DNA, DNP) • National government regulatory bodies (ARME, DGTR, MoF) • Municipal governments • Municipal public transport operators • Entities implementing related or complementary projects. • Car dealerships • Charging station operators EMF applicants	• Semi-structured key informant interviews • Focus Group Discussion with EMF applicants. • Government policies and regulatory instruments • Project reports Reports from other relevant organisations and related or complementary projects

ELEQ No.	Evaluation Question	Evaluation criteria	Original hypotheses	Who can answer this question	Source of information Data gaps
2.2	4.1 is the project on track to deliver its intended outputs? 4.2 What are the main challenges and drivers of success (for each output)	• The project is on track to deliver its outputs. • The project team has identified challenges and drivers of success	• The project's outputs can be delivered during the project's implementation period with the allocated resources	• Implementing partner (DNICE) • project team • National government policy-making bodies (DNA, DNP) • National government regulatory bodies (ARME, DGTR, MoF) • Municipal governments • Municipal public transport operators • Entities implementing related or complementary projects. • Car dealerships • Charging station operators • EMF applicants	• Semi-structured key informant interviews • Focus Group Discussion with EMF applicants. • Government policies and regulatory instruments • Project reports • Reports from other relevant organisations and related or complementary projects
2.3	To what extent does the project's M&E framework capture changes in EV demand, use, and attribution to the project?	• The project's M&E plan is sensitive to changes in the EV market and links to the project and other actors' actions. • The logical framework is used as a reference tool for monitoring (regularly updated)	• The project indicator framework can be used to track project success. • The log frame is regularly updated and used as a learning tool	• Implementing partner (DNICE) • project team • Entities implementing related or complementary projects	• Semi-structured key informant interviews • Project reports • Reports from other relevant organisations and related or complementary projects
			3 EFFICIENCY		
3	To what extent is the relationship between inputs and outputs timely and to expected quality standards?	• The project's outputs can be delivered during the project's implementation period with the allocated resources.	• The project's strategy is the most cost-effective manner of boosting EV demand in Cabo Verde	• Implementing partner (DNICE) • project team • Entities implementing related or complementary projects	• Semi-structured key informant interviews • Project reports

ELEQ No.	Evaluation Question	Evaluation criteria	Original hypotheses	Who can answer this question	Source of information Data gaps
		• If there are delays in the implementation, what have caused them (endogenous or exogenous factors), and how seriously have they impacted the project implementation? • The level of satisfaction of the project's direct beneficiaries	• project activities run smoothly on time and within budget. • Coordination with other projects of the government focusing on EM and using synergies with further projects within the EM sector (if any) will add to the efficiency of the project.		• Reports from other relevant organisations and related or complementary projects
3.1	Are the project management arrangements able to deliver the delivery of project outputs?	• All relevant decision-makers (government policy-making and regulatory bodies) have been properly identified and have clear links and engagement with the project (e.g., as members of the steering committee) • Stakeholders are participating and collaborating actively in the intervention. • The chosen implementation mechanism is conducive to achieving the expected outcomes	• The project can influence changes in the policy and regulatory framework to facilitate the adoption of EVs in Cabo Verde • The Proposed project structure has been implemented with minor modifications (as foreseen in the proposal). • Coordination with other projects at the national/local tiers of government has been positive.	• Implementing partner (DNICE) • project team • National government policy-making bodies (DNA, DNP) • National government regulatory bodies (ARME, DGTR, MoF) • Municipal governments • Municipal public transport operators • Entities implementing related or complementary projects. • Car dealerships • Charging station operators • EMF applicants	• Semi-structured key informant interviews • Focus Group Discussion with EMF applicants. • Government policies and regulatory instruments • Project reports • Reports from other relevant organisations and related or complementary projects
			4 IMPACT		

ELEQ No.	Evaluation Question	Evaluation criteria	Original hypotheses	Who can answer this question	Source of information Data gaps
4	What evidence is there that the project will likely contribute to the intended impact in the ToC (incl. transformational change)?	• The project will likely contribute to increased market demand for EVs, causing a net reduction of GHG emissions and other co-benefits (e.g., reduced fuel imports and decreased air pollution in cities). • The strength of the evidence that key outcomes are going to be achieved and the robustness of the causal links/pathways to the intended impact	• The share of EVs in Cabo Verde grows. • project activities will be key to initiating a self-sustained market of EVs	• Implementing partner (DNICE) • project team • National government policy-making bodies (DNA, DNP) • National government regulatory bodies (ARME, DGTR, MoF) • Municipal governments • Municipal public transport operators • Entities implementing related or complementary projects. • Car dealerships • Charging station operators • EMF applicants	• § Semi-structured key informant interviews • Focus Group Discussion with EMF applicants. • Government policies and regulatory instruments • Project reports • Reports from other relevant organisations and related or complementary projects
			5 SUSTAINABILITY		
5	What is the likelihood that the outcomes will be sustained after the end of the project funding period?	• EV demand will likely keep on growing without direct financial incentives • The extent of the evidence supporting the project sustainability (e.g., evidence of self-sustaining institutional structures, official standards and political and financial commitment of key stakeholders) • There is little or no risk of backsliding or reversing	• Enabling conditions (EV charging facilities, EV workshops, tax reductions, regulatory preference) are likely to be sustained, and the capacities built will stay and serve other private or public-related initiatives beyond the scope and duration of this project.	• Implementing partner (DNICE) • project team • National government policy-making bodies (DNA, DNP) • National government regulatory bodies (ARME, DGTR, MoF) • Municipal governments • Municipal public transport operators • Entities implementing related or complementary projects.	• § Semi-structured key informant interviews • Focus Group Discussion with EMF applicants. • Government policies and regulatory instruments • Project reports • Reports from other relevant organisations and related or

ELEQ No.	Evaluation Question	Evaluation criteria	Original hypotheses	Who can answer this question	Source of information Data gaps
					complementary projects
			6 LEARNING		
6	What key lessons can be learnt to benefit this project (and its legacy), other projects and the Mitigation Action Facility as a whole?	• The project has effectively shared knowledge with stakeholders from other countries of the Economic Community of West African States (ECOWAS) and other Small Island Development States (SIDS). • The project generates lessons for 1) upscaled EV incentives in Cabo Verde (e.g., other islands); 2) future projects and/or projects; 3) the Mitigation Action Facility as a whole.	• Context changes affecting EV demand do not erode project benefits. • project Lessons can be applied in Cabo Verde, other West African countries, and SIDS, and future projects	• Implementing partner (DNICE) • project team • National government policy-making bodies (DNA, DNP) • National government regulatory bodies (ARME, DGTR, MoF) • Entities implementing related or complementary projects.	• Semi-structured key informant interviews • Focus Group Discussion with EMF applicants. • Government policies and regulatory instruments • Project reports • Reports from other relevant organisations and related or complementary projects

Annex C   List of ELE sources

C.1   Internal documents

1. Project Proposal Cabo Verde E-Mobility, 2019

2. Annual Report 2020 Cabo Verde Electric Vehicles FC+TC

3. Semi-Annual Report 2021 - Cabo Verde Electric Mobility TC+FC

4. Annual Report 2021 Cabo Verde Electric Vehicles FC+TC

5. Cabo Verde Electric Vehicles amendments, 2021

6. Semi-Annual Report 2022 - Cabo Verde Electric Mobility TC+FC

7. Annual Report 2022 Cabo Verde Electric Vehicles FC+TC

8. Promotion of Electric Mobility in Cabo Verde (ProMEC) - M&E Plan, 2022

C.2   Public documents

1. ADENDA Solicitação para Manifestação de Interesse (SMI) OPC-CV-1, 2022

2. Lista de Pré-Qualificados - Concurso para seleção de 40 postos de carregamento de veículos elétricos, 2022

C.3   List of organisations interviewed

Institution	Position
Project Team	
GIZ	Team Leader & Project team
Direção Nacional da Indústria, Comércio e Energia	Implementing Partner
Direção Geral do Património e de Contratação Pública	Implementing Partner
Project Stakeholder	
Direção Geral dos Transportes Rodoviários	Gov. Dept.
Agência de Regulação Multisectorial da Economia	Regulator
Centro de Energias Renováveis e Manutenção Industrial	Gov. Training Centre
TRANSCOR (Transportes Públicos em São Vicente)	Municipal Transport Operators

Institution	Position
Bávaro Motors SA	Car Dealerships
Sol Atlantico (Transportes Públicos na Praia)	Municipal Transport Operators
Câmara Municipal da Praia	Local Gov.
Câmara Municipal de São Vicente	Local Gov.
Pleno Energy	EV commercial charging station operator
ECOWAS Centre for Renewable Energy and Energy Efficiency	Pan-Regional Agency
BOCAR	Car Dealerships
Third-Party	
Caetano	Car Dealerships
Taxi Association	Association
Consumers Association	Association
United Nations Industrial Development Organisation	International Cooperation
Lux-Dev PTE -Programa de transição Energética	International Cooperation
VivoEnergy	Fuel Supply Company
Empresa Nacional de Combustivéis	Fuel Supply Company
NOSI	Applicants of the EMF subsidy
Smart-Trip	Applicants of the EMF subsidy
Private beneficiary	Applicants of the EMF subsidy
Private beneficiary	Applicants of the EMF subsidy
APP- Aguas de Ponta Preta	Energy, water and sanitation services provider
Câmara Municipal de Santa Cruz	Local Gov.