

Peru Sustainable Urban Transport Final Evaluation and Learning Exercise (ELE) Report & Management Response

August 2022

Overview

- **Management Response:** response to the recommendations made by the evaluation team in this Evaluation and Learning Exercise (ELE) report. Jointly written by the NAMA Support Project (NSP) and the Technical Support Unit (TSU) of the NAMA Facility.
- **Evaluation and Learning Exercise Report:** external and independent evaluation conducted by the consortium AMBERO and Oxford Policy Management.

Evaluation and Learning Exercise (ELE) of the Peru Sustainable Urban Transport NAMA Support Project (NSP) - Management Response

1. Background

In 2021, the NSP Peru Sustainable Urban Transport was subject to an independent final-project ELE conducted by an evaluation team led by AMBERO Consulting.

The NSP and Technical Support Unit (TSU) provided responses to the recommendations made by the evaluation team as follows:

2. Recommendations to the political implementing partners and the NSP Team for the continuation of the TRANSPerú NAMA

Recommendations	Activities	Responsible Entity	Timeline
<p>Recommendation 1: Review and consider the need to create and maintain a NAMA Steering Committee (and multiple working groups) now that ATU and PROMOVILIDAD were created and are operating.</p>	<p>Recommendation partially accepted.</p> <p>A steering committee is needed to monitor the implementation of the new matrix measures and to comply the new KfW's PBL, since neither ATU nor PROMOVILIDAD has the mandate to follow up on the TRANSPerú NAMA progress. A multisectoral committee is in the process of being created.</p>	MTC	June – December 2022

3. Response to the recommendations to the NAMA Facility for the review, approval and management of future interventions

Recommendations	Activities	Responsible Entity	Timeline
<p>Recommendation 1: Develop a repository of ELE recommendations applicable to future NSPs and share them with the prospective applicants.</p>	<p>Recommendation accepted.</p> <p>With a growing number of ELE reports presenting recommendations aimed at the NSP, implementing partners, the NAMA Facility, and potential applicants, the "database" of the recommendations is growing, which calls for the systematized approach. Some of these recommendations have already been used in in the third</p>	TSU	2022 onward

	<p>webinar of the Ambition Initiative – Round Two. In addition, the TSU will consider the option of a more systematic repository which could be embedded on the NAMA Facility website.</p>		
<p>Recommendation 2: Integrate the regular validation of the NSP's institutional framework into the NSP M&E system.</p>	<p>Recommendation partially accepted.</p> <p>Although the regular validation of the institutional framework does not have a designated chapter in the current template for reporting under the annual and semi-annual rhythm per se, it is an integral part of the ongoing reporting to the TSU, either as part of monthly update calls, featured in reporting or captured in amendment policies. In addition, the institutional set-up and framework condition are scrutinized already as part of the Outline selection process, and if required featured as conditions and requirements for Detailed Preparation Phase (DPP) and Implementation.</p>	<p>TSU</p>	<p>Ongoing</p>
<p>Recommendation 3: Consider expanding the DPP feasibility criteria to include the availability and reliability of the data to be used by the NSP.</p>	<p>Recommendation partially accepted.</p> <p>Data quality and availability for the greenhouse gas (GHG) calculations as well as financial models are assessed as part of the Outline and Proposal assessments and constitute the basis for the external review of the plausibility of the financial mechanism(s) and mitigation potential. Underlying data used as part of regular reporting (annual and semi-annual report) is also checked by the TSU.</p>	<p>TSU</p>	<p>Ongoing</p>
<p>Recommendation 4: Ensure that the protocols to change an NSP's scope, targets or indicators are appropriately applied, documented and justified.</p>	<p>Recommendation partially accepted.</p> <p>With a growing portfolio and growing need for NSP amendments, the NAMA Facility Board approved the amendment policy in 2018 to</p>	<p>TSU</p>	<p>Ongoing</p>

reflect all changes in a systematic way going forward. The policy offers a standardised process and guidelines for handling such requests in a systematic way for conceptual changes, project extensions, budget shifts and budget increases, which would require the approval by either the TSU or the NAMA Facility Board.

Additional points:

- As an NSP from the 2nd Call, the NSP carries unique feature supporting the implementation of sector wide NAMA and implementing an instrument otherwise not implemented in the rest of the NAMA Facility portfolio, e.g., policy-based lending.
- The management of the budget under the Financial Cooperation (FC) component lies solely with KfW and the commission for this is directly between BMU and KfW, so the TSU does not play a role in the financial management and was involved only in the framework of regular reporting (semi-annual and annual reporting) and update calls.

Final Evaluation and Learning Exercise of the Peru Sustainable Urban Transport NAMA Support Project

NAMA Support Project Evaluation and Learning
Exercises for the NAMA Facility

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Final Report

Andrés Francisco Baquero-Ruiz, Julio Guzmán, Enver Figueroa, Luca Petrarulo

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AMBERO Consulting provides services to our clients in the field of international development. Since 2003, we have supported national and international development agencies in the design, preparation, implementation, and monitoring of small and large projects that improve living conditions around the world.

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Disclaimer

The results and analysis included in the report are based on an external and independent evaluation conducted by the consortium AMBERO-OPM. The conclusions drawn in the report do not necessarily reflect the official views of the NAMA Facility and/or of the NAMA Support Project under evaluation.

AMBERO Consulting Gesellschaft mbH

Westerbachstraße 3
D-61476
Kronberg i.Ts
Deutschland

Tel: +49 6173 325 40 0
Fax: +49 6173 325 40 22
Email: info@ambero.de
Website: www.ambero.de

Oxford Policy Management Limited

Registered in England: 3122495

Level 3, Clarendon House
52 Cornmarket Street
Oxford, OX1 3HJ
United Kingdom

Tel: +44 (0) 1865 207 300
Fax: +44 (0) 1865 207 301
Email: admin@opml.co.uk
Website: www.opml.co.uk
Twitter: [@OPMglobal](https://twitter.com/OPMglobal)
Facebook: [@OPMglobal](https://www.facebook.com/OPMglobal)
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LinkedIn: [@OPMglobal](https://www.linkedin.com/company/OPMglobal)

Preface

The NAMA Facility is a joint initiative of the German Federal Ministry for Economic Affairs and Climate Action (BMWK), UK's Department for Business, Energy and Industrial Strategy (BEIS), 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 NAMA Facility was established in 2013. The NAMA Facility's vision is to 'accelerate carbon-neutral development to keep temperature increases to well below two degrees Celsius by supporting NAMA Support Projects (NSPs) that effect sector-wide shifts toward sustainable, irreversible, carbon-neutral pathways in developing countries and emerging economies. All NSPs with an overall duration of more than three years are subject to a mid-term and a final evaluation and learning exercise.

The NAMA Facility's Technical Support Unit (TSU) functions as the secretariat of the NAMA Facility. The TSU commissioned AMBERO and Oxford Policy Management to conduct mid-term and final Evaluation and Learning Exercises (ELEs) for NSPs from calls 1, 2, 3 and 4.

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 NSPs' 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 **Final ELE of the Peru Sustainable Urban Transport**. The report has been reviewed by Luca Petrarulo (Technical Lead, NSP ELE Team) and Elizabeth Gogoi (International Expert A, NSP ELE Team). For further information, please contact vera@ambero.de.

Executive summary

This document presents the findings of the **final Evaluation and Learning Exercise (ELE) of the Peru Sustainable Urban Transport NSP**. The ELE was undertaken during the period July – October 2021. In accordance with the Terms of Reference¹, this ELE sought to address the following questions:

- Has the NSP achieved its planned results?
- Has the NSP started to trigger transformational change?
- What can be learnt from the NSP?

More information about the focus of this ELE and on the methodology followed can be found in Section 1.2 and Section 2, respectively.

Transport contributes the highest share of all Peruvian sectors to energy-related CO₂ emissions and without actions to change the current trend towards increasing numbers of car and motorcycle users, greenhouse gas (GHG) and air-polluting emissions will increase. To invert this trend, the Government developed the Peru Sustainable Urban Transport (TRANSPerú) NAMA, which sought to achieve a) the provision of high-quality transit and non-motorised transport alternatives to traditional car use and b) the optimisation of the national vehicle fleet both in terms of quantity of vehicles and of the sources of energy used. The TRANSPerú NAMA's goals, both in terms of outputs and outcomes, were set out in detail within a *NAMA Policy Matrix*². A NAMA Steering Committee was proposed to lead, coordinate and monitor the actions required to achieve the ambitious transformation effort considered in the matrix.

The TRANSPerú NAMA Support Project (NSP)³ proposal was developed and funded under the NAMA Facility's second Call in 2015, and according to the NSP proposal, it would support the NAMA Steering Committee's work in two main ways: (i) providing strategic level support (no further details were provided on this role within the NSP proposal), and (ii) supporting the creation and operation of working groups for in-depth technical discussions on the key elements of the NAMA. The NSP aims to achieve two main outcomes: (i) improving the individual and institutional capabilities to drive the transformation of Peru's urban transport sector into a low-carbon sector, and; (ii) making improvements to the services and infrastructures for mass transit and non-motorised transport (NMT) as a means to increase their use. It consisted of a EUR 5 million Technical Component focused on institutional support and strengthening, capacity building and other technical assistance, and a Financial Component that was aimed at incentivising the adoption of reforms through a EUR 40 million Policy-Based Loan (PBL) originating from KfW and a EUR 4 million grant from the NAMA Facility, to be disbursed in two equal EUR 22 million (EUR 20 million loan and EUR 2 million grant) tranches as incentives to achieve the outputs in the aforementioned NAMA Policy Matrix. These outputs were

¹ The ELE Terms of Reference is provided in Annex H.

² This NAMA Policy Matrix was presented to the NAMA Facility as Annex 9 of the two NSP Proposals (Technical and Financial components) and it is included in this report in Annex I.

³ It is important to understand that there is a TRANSPerú NAMA, which is a government initiative to decarbonise the urban transport sector, and a TRANSPerú NSP, which is a project funded by the NAMA Facility to support the Peruvian NAMA. The subject of this ELE is the NSP, not the NAMA.

grouped in the Matrix into two separate sets of milestones (programme 1 and programme 2) to be achieved by the TRANSPerú NAMA at specific dates. The Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH is in charge of the Technical Component, and KfW is responsible for the execution of the Financial Component. The NSP has two local implementing partners: the Peruvian Ministry of Transport and Communication (MTC), and the Ministry of Environment (MINAM).

The NSP completed its Financial Component execution in 2020 with the disbursement of the second and final concessional loan, while the Technical Component is expected to continue until June 2022, two and a half years later than the original NSP's completion date of December 2019. Two time extensions were required due to a late start of the project because of delayed administrative procedures, and also to new delays caused by the COVID-19 pandemic.

Table ES-1 summarises the key findings of the ELE according to its five evaluation criteria: relevance, effectiveness, efficiency, impact, and sustainability. The following Red-Amber-Green (RAG) rating has been used: Good/ Very good = Green; Problems = Amber; Serious deficiencies = Red; Not enough information to rate = Grey.

Table ES-1. Summary of key ELE findings

Evaluation criterion / ELE Question and RAG rating	Summary of key findings
<p>1. Relevance: To what extent does the NSP address an identified need (by national and local governments, urban transport users, transport providers)?</p>	<p>The technical support provided by the NSP to national and local governments was in accordance with their particular needs.</p> <p>At the time of the NSP proposal, the project scope was limited to supporting the TRANSPerú NAMA's efforts for the public sector transformation. However, this meant that two very important stakeholder groups for urban transport transformation in Peru (transit operators and the general population with their day-to-day mobility needs) have not been engaged.</p> <p>COVID-19 increased the relevance of the project, as car mobility was restricted and NMT encouraged during the toughest moments of the pandemic. It also moved Peruvian lawmakers to pass regulations increasing the ability of the public sector to intervene and manage urban transit.</p> <p>Although it had serious consequences for the project's effectiveness (as discussed in detail in the effectiveness and efficiency sections of the report), in a way, Peru's recent period of political instability at the national level validated the relevance of the NSP by emphasising the importance of the NSP in keeping the momentum for sectoral reforms high despite the high staff turnover of public decision-makers.</p>
<p>2. Effectiveness: To what extent has the NSP achieved intended (and unintended) outcomes?</p>	<p>Administrative hurdles and a turbulent recent political context in Peru meant that the NAMA Steering Committee was never formally created. The NSP stepped in to maintain governmental interest in sustainable urban transport, but could not replace the missing leadership arrangements. The NSP took on the responsibility of pushing forward a sustainable urban transport agenda but lacked the capabilities and resources to replace the political, administrative,</p>

<p>Outcome 1: Improvements to individual and institutional capabilities for the transformation of Peruvian urban transport into a low-carbon sector</p>	<p>coordination and monitoring challenges that should have been handled by the Steering Committee.</p> <p>Even without the NAMA Steering Committee’s leadership, the NSP achieved four key goals within their work: the creation of Lima’s Single Transport Authority (ATU), MTC’s PROMOVILIDAD⁴, the formulation and adoption of the National Urban Transport Policy and the incorporation of urban transport within the MTC’s multi-year budget. All of these are adequate and capable foundations to build upon.</p> <p>However, the effort failed to reach the expected level of transformation. Many interviewees expressed concerns about the ability of the MTC and ATU to continue the transformation of the sector. as the newer institutions were still too administratively and politically sensitive to lead the required discussions and changes. The COVID-19 pandemic also caused delays to the NSP, particularly for the consolidation of ATU and PROMOVILIDAD.</p> <p>GHG estimation and MRV outputs have become the backbone of Peru NDC’s transport commitments, but these estimations are largely based on foreign emission factors and transport data that are either dated or lack accuracy, which means that real-world GHG emissions performance may be very different from the estimations.</p> <p>The NSP’s work focused mostly on the national and Lima – Callao’s public sector institutions, but many other public and private urban transport stakeholders need to be engaged to achieve the transformation. Without engaged and committed transit operators and urban transport users, little transformation can be achieved. The fact that the NSP did not pilot any new technologies, processes or business models, also means that, given the mostly informal nature of transit operations in Perú and the low trust and interaction between the government and the general public, most proposed changes to the transit or urban transport systems to progress towards a low-carbon urban transport sector may face significant resistance to their adoption.</p> <p>The NSP has helped to introduce gender equality considerations in the urban transport agenda, although they will take some time to be mainstreamed.</p>
<p>2. Effectiveness (continues)</p> <p>Outcome 2: Improved provision of transit and NMT services and infrastructures lead to increased use</p>	<p>The disbursement of the Financial Component’s funding was made in full, but the programme 1 and 2 outputs set out in the NSP Proposal’s Policy Matrix (see Annex I) were not achieved. The ELE established that those milestones were revised down through discussions and negotiations between a government multisectoral working group led by the Ministry of Economy and Finance (MEF), KfW and GIZ, but found no evidence of those revisions being discussed, validated or reported to the NAMA Facility.</p>

⁴ A new area of the MTC that focuses its effort on supporting local governments in formulating and implementing policies and projects related to sustainable urban transport.

	<p>In multiple scenarios, PBLs have proven to be a valuable tool to get governments to advance in a desired reform agenda⁵. However, in this case, due to the revising down of the Policy Matrix' programme 1 and 2 to authorise disbursements, the ELE Team considers that the NSP has not contributed to the extent it could, had the FC disbursements been approved based on the outputs in the original policy matrix, or in a version of the policy matrix that had been properly discussed and agreed with NAMA Facility/ TSU. Outcome 2 received a red RAG rating as it showed limited progress and management and coordination issues within the Financial Component, very likely linked to the absence of the NAMA Steering Committee, that should have guided, coordinated and monitored the NAMA's progress. Improvements to transit and NMT infrastructures and services were supposed to have been undertaken by the public sector institutions strengthened by the Technical Component, and the disbursement of the Financial Component's PBL and grant funds should have happened upon compliance with the Policy Matrix's outputs in the corresponding stages. Indeed, the NSP was responsible to monitor the progress in the implementation of the urban transport sector's reforms and improvements as shown by the inclusion of the NSP's outcome indicator "75% of the 77 outputs in the Policy Matrix [are achieved]". However, the NSP stopped reporting on that indicator from 2019's Annual Report onwards and have approved the disbursement of the funds according to a revised-down set of the Policy Matrix's proposed programme 1 and programme 2 outputs. The ELE was not given an explanation on who, when and how approved or expressed consent to use disbursement criteria different than the NAMA Policy Matrix' programme 1 and programme 2 outputs, particularly considering that they were supposed to have acted as incentives for the NAMA Steering Committee and the Peruvian Government to advance in the transformation of the sector.</p>
<p>3. Efficiency: To what extent was the delivery of outputs timely and to expected quality standards?</p>	<p>Without the NAMA Steering Committee to lead and monitor the NAMA's progress, the NSP deviated from its support role and assumed a leadership role, for which it lacked the capabilities, the resources or the tools. The lack of the NAMA Steering Committee and the changing political scene forced the NSP to constantly adapt to the shifting requirements and priorities of new governments and decision-makers to try and maintain the interest in Sustainable Urban Transport, which were roles that the NSP was not supposed to do. Even in this context, the Technical Component reported on-time delivery of 8 of its 10 outputs, while the Financial Component only 1 out of 4.</p> <p>The inability to formally create the NAMA Steering Committee left the NAMA and the NSP without coordination and monitoring capabilities. The NSP's Technical and Financial Components made changes to keep operating without the Steering Committee, but did not introduce any clear coordination structures or processes (see section 3.3). The lack of coordination is evidenced by the fact that several of the NAMA Policy Matrix outputs that were expected</p>

⁵ The Interamerican Development Bank (IDB) and the Asian Development Bank (ADB) have published reports of assessments of these instruments including IDB's "[Design and Use of Policy-Based Loans at the IDB](#)" and ADB's "[Policy-Based Lending: Emerging Practices in Supporting Reforms in Developing Member Countries](#)".

	<p>to be incentivised by the Financial Component were not met, but funding was disbursed anyway.</p> <p>Despite the difficulties, the NSP was able to push through key institutional, policy and regulation changes providing the basis to advance urban transport efforts. Additionally, the key institutional structures created through the NSP's support are now pivotal in coordinating funding and actions for sustainable urban transport from development partners and international financial institutions. In the absence of the NAMA Steering Committee, ATU and PROMOVILIDAD have become key foundations for the coordination of sustainable urban transport actions. The formal creation of these two institutions provided an already well-organised international cooperation and financing community with clearer and more capable channels for their technical assistance work and financial resources.</p> <p>Individual and institutional strengthening efforts have remained, even with the high staff turnover. Also, trained staff relocations helped further disseminate their enhanced knowledge.</p> <p>While output delivery, particularly of the Technical Component, was reasonable due to the difficult national context, the NSP appeared to have been less able to stay on track with its outcomes (see section 3.3). As GIZ (the agency in charge of the Technical Component) acknowledged, a mid-term evaluation could have helped the NSP better understand how the changing context was affecting the NSP and adopt actions to stay on track with its Theory of Change.</p>
<p>4. Impact: What evidence is there that the NSP has been contributing to the intended impact in the ToC (incl. transformational change)?</p>	<p>Although some concrete signals of lasting impact are present, the advances in transformational change induced by the NSP have been lower than what was expected according to the NAMA Policy Matrix' outputs and outcomes.</p> <p><i>Dimension 1: Producing a demonstrational effect and promoting learning (interim signals):</i> The ELE confirmed that, despite the political turbulence and staff changes, and the lack of a NAMA Steering Committee, the NSP was able to maintain a strong buy-in from the government, which led to important institutional and policy changes. The institutional and policy changes that the NSP promoted are operational and their functioning has been demonstrated, but the transit service and infrastructural improvements that the NSP was aiming for were not achieved and their practical demonstration cannot thus be seen. The Transformational Change Framework includes as one of the factors supporting transformational change the introduction of new technologies, processes or business models, but no activities of this kind were considered within the scope of this NSP. Also, the ELE found that the knowledge sharing effort of the NSP was limited to the publishing of two articles addressing transport and gender issues and no mid-term ELE was undertaken, which together contribute to the ELE's conclusion that there was limited learning of and adaptation to the technical challenges related to the project's implementation. The ELE Team acknowledges that this learning process may have been affected by the sudden change in the role of the NSP from a supporting role to a leadership and continuity role, which meant that it needed</p>

	<p>to dedicate its resources to fill in that coordination gap, compromising its learning focus and capabilities.</p> <p><i>Dimension 2: Caused a catalytic effect (early signals):</i> The NSP has supported the evolution of Peruvian public sector institutions within the urban transport sector to an institutional framework with clear responsibilities and some funding. The NSP has also clearly worked to support further NDC implementation by (i) providing transport sector GHG estimations (albeit some data limitations), and (ii) helping mobilise EUR 80 million in additional public finance for the NAMA implementation. However, no evidence was found that these signs of transformation of the urban transport public sector had started changing the behaviour of specific groups like transit operators, Non-Motorized Transport (NMT) users, or the population at large, who were expected to show some signs of engagement through the shift towards cleaner vehicles or fuels, or by increasing the use of cycle lanes or paths. Given the significant stake that the broad “private sector”, including the general population and the private transit operators, has on the transformation of the urban transport sector, there is a high risk of the NSP (and the NAMA) failing to deliver a full catalytic effect for the expected GHG emissions reductions.</p> <p><i>Dimension 3: Contributing to additional, large scale and sustained GHG reductions (no signals):</i> According to the 2020’s NSP Annual Report, the GHG reductions observed are attributable to other causes other than the NSP. At the same time, following the evidence and considerations presented within dimensions 1 and 2, the NSP is unlikely to achieve large-scale and sustained GHG reductions, which would require the buy-in of informal transit operators and citizens to the transformation of the urban transport sector into a sustainable one.</p>
<p>5. Sustainability: What is the likelihood that the outcomes will be sustained after the end of the NSP funding period?</p>	<p>The implementation of ATU, PROMOVIDAD and the adoption of the National Urban Transport Plan and the investment plans are strong signs that these NSP’s achievements are unlikely to be reversed. It is also worthy to highlight that in the 2021 Semi-Annual Report there was mention of an update to the NAMA Policy Matrix that would provide guidance for the next few years, although this updated matrix was never reviewed by the ELE Team.</p> <p>Funding for the execution of the TRANSPerú NAMA’s agenda for the next few years are in place and coming from a wide range of international and national sources.</p> <p>Institutional and individual capacities of those supported by the NSP appear to have been solidly retained, despite the COVID-19 pandemic, the multiple political crises and the high level of staff turnover. These could be hampered by the lack of relevant higher education programmes, although this is outside the scope of the NSP.</p>

Figure ES-1 below presents an overview of the progress of the NSP along its ToC causal pathways towards its intended outcomes. The RAG rating follows the same scale as for Table ES-1. The analysis of the five causal pathways supports these general conclusions. **What transpires is that multiple causal assumptions underpinning the ToC have not held its actual implementation, whose causes**

can be traced back to the common issue of the legal impossibility to formally establish the NAMA Steering Committee that was supposed to guide, coordinate and monitor the NAMA as a whole. The Steering Committee's absence limited the NSP's efforts to improve the institutional and individual capabilities (Outcome 1), which became critical issues in achieving the aimed improvements in transit and NMT services and infrastructures (Outcome 2). For a full causal pathway analysis please refer to section 4.

Figure ES-1. Overview of NSP Causal Pathways Assessment at End-line



Based on the analysis, a **summary⁶ of the key lessons** deriving from the ELE is provided below:

- It is important to review the future role, if any, of the TRANSPerú NAMA Steering Committee, given the roles and responsibilities about the NAMA that were assigned to ATU and PROMOVILIDAD.
- Transforming complex systems is unlikely to happen without the engagement and commitment of all (or most) key stakeholder groups.
- Multi-stakeholder coordination bodies with strong political capital are crucial to driving sector-wide transformational change.
- Robust, reliable and easily updatable GHG emissions models are crucial to properly assess and monitor the effectiveness of NAMA projects.
- Smaller, less politically visible cities could make better pilot cases as they are cheaper to intervene in, and may deliver results and lessons faster, which could be more relevant to other similar cities as well.

⁶ Please refer to section 5 for the full description of the lessons.

- Pilots or demonstrations can be instrumental in helping stakeholders to learn about the risks, costs, and challenges of new urban transport policies or actions.
- Changes to project goals or indicators should be agreed with the NAMA Facility and proper justification should be provided and filed with both the request and the decision.
- The transformation of the public transport sector into a low-carbon one depends upon finding the right balance across institutional, environmental, social, financial, and economic dimensions, particularly so if transit is expected to have adequate coverage, be environmentally-friendly and remain affordable at the same time.
- If Technical and Financial Components are to work together to incentivise compliance and realise synergies, the NSP should either define a formal coordination structure in the proposal or adopt some means of incentivising the interaction between the two.

From these lessons, specific recommendations for the political implementing partners of the TRANSPerú NAMA, the NAMA Facility, and future NSPs applicants were derived. **Table ES-2 presents a summary⁷ of these recommendations.**

Table ES-2. Key recommendations from the Final ELE

Summary of recommendations	
Recommendations to the political implementing partners and the NSP Team for the continuation of the TRANSPerú NAMA	
1.	Review and consider the need to create and maintain a NAMA Steering Committee (and multiple working groups) now that ATU and PROMOVILIDAD were created and are operating.
Recommendations to the NAMA Facility for the review, approval, and management of future interventions	
1.	Develop a repository of ELE recommendations applicable to future NSPs and share them with the prospective applicants.
2.	Integrate the regular validation of the NSP's institutional framework into the NSP M&E system.
3.	Consider expanding the detailed preparation phase (DPP) feasibility criteria to include the availability and reliability of the data to be used by the NSP.
4.	Ensure that the protocols to change an NSP's scope, targets or indicators are appropriately applied, documented and justified.
Recommendations to future NSP applicants	
1.	Any transport and other reform initiatives should engage early on with private sector actors and citizens whose behaviour, decisions and investments it seeks to influence.
2.	Sustain technical recommendations with advocacy activities.
3.	Consider executing pilots in cities of different sizes.
4.	Include pilots financed with international cooperation funds to reduce political resistance and increase interest and ownership in sustainable urban transport solutions.
5.	Adopt formal structures or incentives in NSP proposals to ensure the appropriate coordination between Technical and Financial Components.

⁷ Please refer to section 5 for the full description of the recommendations.

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List of abbreviations

AATE	Autoridad Autónoma del Sistema Eléctrico de Transporte de Transporte Masivo de Lima y Callao (Autonomous Authority for the Electric System of Massive Transit of Lima and Callao)
ATU	Lima and Callao’s Single Transport Authority
BMWK	German Federal Ministry for Economic Affairs and Climate Action
COVID-19	Corona Virus Disease 2019
EUR	Euro
ELE	Evaluation and Learning Exercise
ELEQ	Evaluation and Learning Exercise Question
EQ	Evaluation Question
FC	Financial Component (of the NAMA Support Project)
FW	Framework
GHG	Greenhouse Gas
GIZ	Gesellschaft für Internationale Zusammenarbeit
KfW	KfW Development Bank (KfW – Kreditanstalt für Wiederaufbau)
KII	Key Informant Interview
Logframe	Logical Framework
MINAM	Peru’s Ministerio de Ambiente
M&E	Monitoring and Evaluation
MRV	Measuring, Reporting, and Verification
MTC	Peru’s Ministerio de Transportes y Comunicaciones
NAMA	Nationally Appropriate Mitigation Action
NDC	Nationally Determined Contribution
NMT	Non-Motorised Transport
NSP	NAMA Support Project
NS	NSP Stakeholder

NT	NSP Team
OECD DAC	Organisation for Economic Co-operation and Development's Development Assistance Committee
OPM	Oxford Policy Management
PROMOVILIDAD	Programa Nacional de Transporte Urbano (National Urban Public Transport Programme)
QA	Quality Assurance
QC	Quality Control
PBL	Policy-Based Loan
RAG	Red Amber Green
TC	Technical Component (of the NAMA Support Project)
ToC	Theory of Change
TP	Third Party
TS	Types of Sources
TSU	Technical Support Unit, NAMA Facility

1 Introduction

1.1 Overview of the NSP

According to the NSP proposal, in 2010 transport contributed the highest share of all Peruvian sectors to energy-related CO₂ emissions (37.5% equivalent to 15.2 MtCO₂e annually). Its share and total emissions are expected to further rise with the increased use of individual motor vehicles for citizens' daily transport needs. This shift towards cars and motorbikes has been taking place for several reasons: low-quality of public transport, both in terms of service and coverage; non-motorised transport (NMT) services and infrastructures are of poor condition and with bad connectivity; and transit vehicles are old with high GHG and air pollutant emission levels. One of the contributing causes to this situation is the limited capacity of national and local governments to intervene in urban transport and transition it to a more efficient and low-carbon trajectory.

To invert this trend, the Government developed the Peru Sustainable Urban Transport (TRANSPerú) Nationally Appropriate Mitigation Action (NAMA), which focuses on: a) providing high-quality transit and non-motorised transport as alternatives to traditional car use for urban transport, and b) the optimisation of the national vehicle fleet both in terms of quantity of vehicles and of the sources of energy used. The output and outcome goals of the TRANSPerú NAMA were defined in a NAMA Policy Matrix, and a NAMA Steering Committee was proposed to lead, coordinate and monitor the actions required to achieve the ambitious transformation effort considered in the matrix.

To support the NAMA Steering Committee's work, a TRANSPerú NAMA Support Project (NSP)⁸ proposal was developed and selected under the NAMA Facility's second Call in 2015. According to the NSP proposal, it would support the NAMA Steering Committee's work in two main ways: (i) providing strategic level support (no further details were provided on this role within the NSP proposal), and (ii) supporting the creation and operation of working groups for in-depth technical discussions on the key elements of the NAMA. For those objectives, the NSP included a EUR 5 million Technical Cooperation Component (hereafter Technical Component) focused on institutional support and strengthening, capacity building and in consultancy work required for regulatory and institutional reforms, and a Financial Cooperation Component (hereafter Financial Component) that was aimed at incentivising the adoption of reforms through a EUR 40 million Policy-Based Loan (PBL) and EUR 4 million of grant funds to be disbursed in two tranches based on the delivery or achievement of the NAMA Policy Matrix's Programme 1 and Programme 2 outputs. The *Deutsche Gesellschaft für Internationale Zusammenarbeit* (GIZ) GmbH was in charge of the Technical Component, and KfW was responsible for the execution of the Financial Component. The NSP had two local implementing partners: the Peruvian Ministry of Transport and Communication (MTC), and the Ministry of Environment (MINAM).

The NSP was granted two extensions by the NAMA Facility. The first of these, which concerned both NSP components, sought to compensate the longer than expected time to complete the

⁸ It is important to understand that there is a TRANSPerú NAMA, which is a government initiative to decarbonise the urban transport sector, and a TRANSPerú NSP, which is a project funded by the NAMA Facility to support the Peruvian NAMA. The subject of this ELE is the NSP, not the NAMA.

intergovernmental project agreement and formally start the NSP. While the Financial Component ended in December 2020, the Technical Component underwent a second extension as a result of the COVID-19 pandemic, which moved its end date to June 2022.

The expected impact and outcomes of the NSP

The NAMA TRANSPerú seeks to stop and, if possible, reverse the trend towards car-dominated urban conglomerates characterised by severe congestion, poor road safety, and low air quality, by supporting better framework conditions (e.g. a national urban transport policy, a fuel economy standard), additional infrastructure (e.g. metro lines, cycle lanes), and a strong institutional set-up (e.g. a dedicated transport authority for Lima/Callao). The NAMA’s goals are detailed in a comprehensive Policy Matrix, the achievement of which relied heavily on the creation of a NAMA Steering Committee, bringing together ministries and public agencies, some international cooperation and financing institutions and representatives of the private sector. The Steering Committee would guide and coordinate actions and monitor progress and compliance along 6 major mitigation areas or NAMA Components. The NSP was created to assist the NAMA Steering Committee in performing its guidance, coordination and monitoring duties, and provide training and technical assistance to the government to support the decarbonisation of the urban transport sector.

Figure 1. Theory of Change of the Peru Sustainable Urban Transport NAMA Support Project

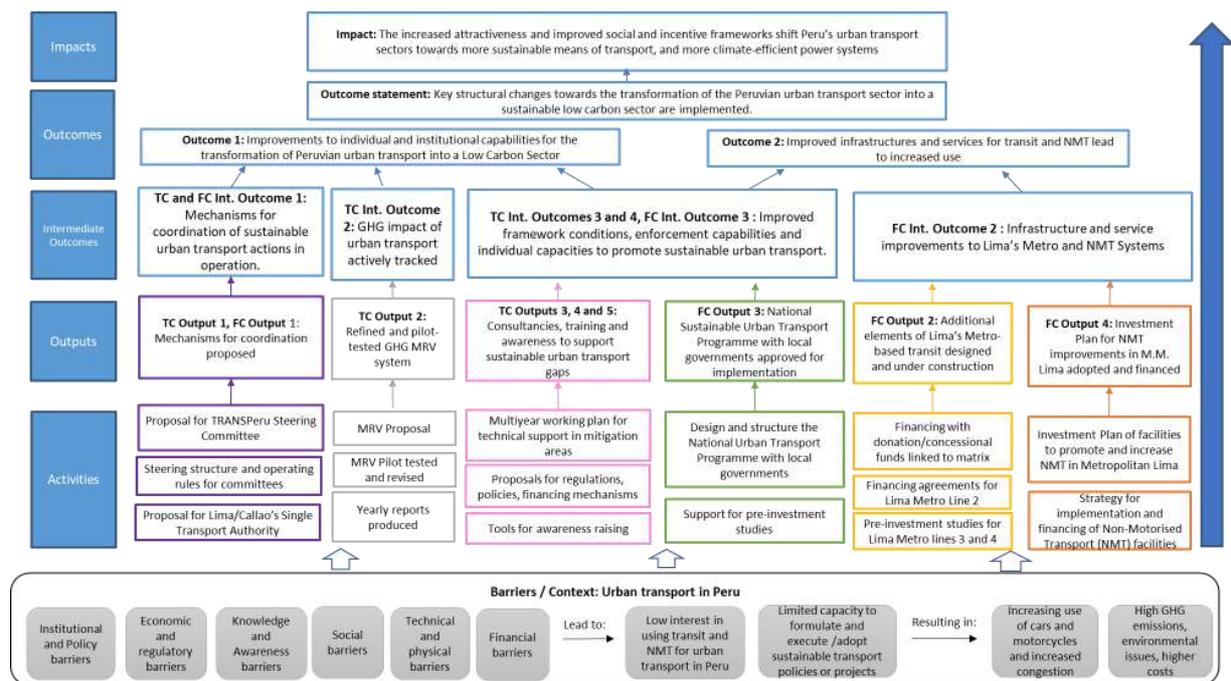


Figure 1 illustrates the NSP’s Theory of Change (ToC), showing a summary of the different outputs and outcomes of the NSP. The NSP aims to achieve two main outcomes: (i) improving the individual and institutional capabilities to drive the transformation of Peru’s urban transport sector into a low-carbon sector, and; (ii) strengthening services and infrastructures for mass transit and NMT to encourage an increase in their use.

The NSP focuses almost exclusively on elements of the urban transport sector transformation that are under the direct control of the public sector. These are: the creation of multisectoral coordination groups, technical assistance and capacity building for national and local governments, proposals for

new policies and regulations, and preparation of pre-investment studies and multi-year investment plans.

The NSP does include some private sector stakeholders as beneficiaries of the public sector-focused activities, reflected in the following logframe indicators:

- Outcome indicator 3: a *“publicly available index or indicator measuring the social, economic, environmental and institutional performance of the public transport system in Lima / Callao has improved by at least 10%”*
- Outcome indicator 4: *“1.5 million persons directly benefitting from improved public transport system in Lima / Callao and 300,000 owners of new vehicles benefitting from an energy efficiency label or fuel economy standard in Peru”.*

In its role of NSP Technical Component partner, GIZ produced an “Índice de Calidad de Transporte Público - ICTP” (the “Transit Quality Index” in English) to assess and report transit or private vehicle technological improvements. Some of the elements included in the ICTP that highlight that end focus on transit operators, transit users or the population according to different dimensions include, among others:

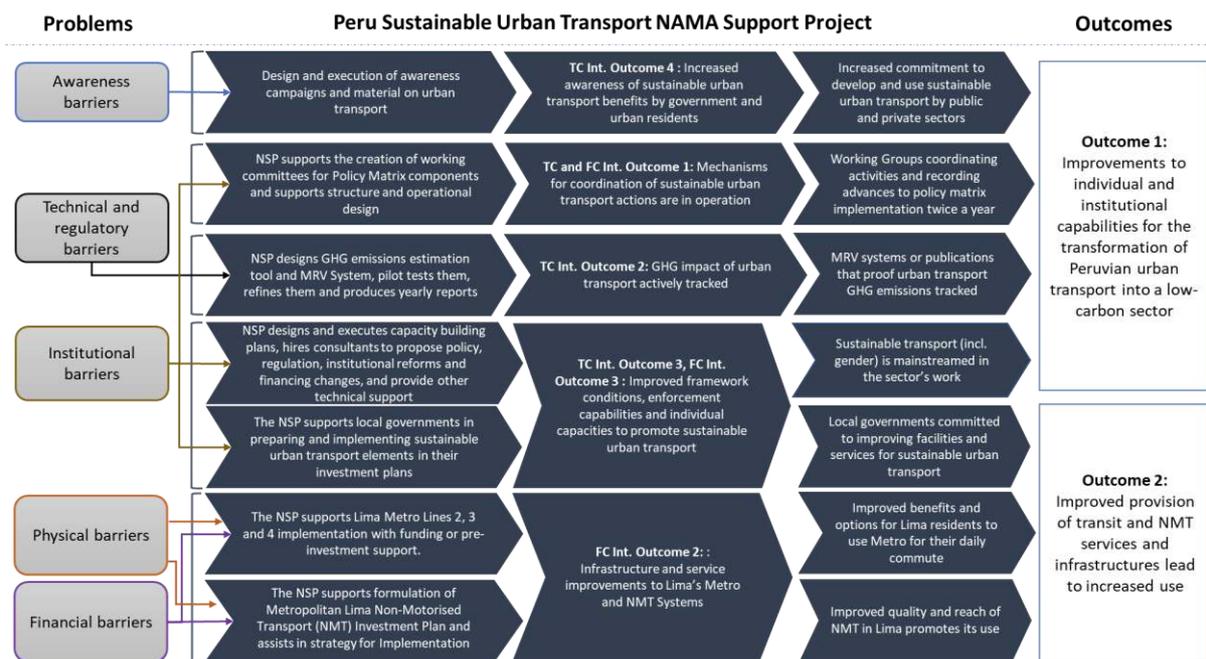
- Environmental aspects: “Amb-04 – Incentive to the use of electric vehicles” and “Amb-05 – Average age of the transit fleet”.
- Economic: “Eco-02 – Average expenditure for transit”.
- Institutional: “Ins-05 – Existence of an integrated transit system”, “Ins-06 – commissioning of the integrated transit system” and “Ins-07 – Subsidies to the operation of mass transit system”.
- Social aspects: “Soc-01 – Universal access to transit vehicles and stops”, “Soc-03 – Use of integrated transit cards”, “Soc-07 – Transit user satisfaction in terms of safety and security”, “Soc-08 – Accidents per 100,000 inhabitants”, “Soc-09 – Accidents per 100,000 vehicles”, and “Soc-10 – Average transit travel time”.

The ELE Team reviewed this ICTP and found that it was estimated until 2017. No updates were found for this ICTP for 2018 or later.

The NSP causal pathways

No mid-term evaluation had been conducted for the NSP. This means there was no opportunity during the NSP to assess whether any changes in the structure, scope or actions were required in light of the context changes that occurred since the NSP was formulated. Also, considering that causal pathways are often tested in mid-term evaluations, the ELE had to produce a causal pathway map based on the NSP’s original assumptions (see Figure 2).

Figure 2. Overview of NSP Causal Pathways



This consists of five main causal pathways:

- Causal Pathway 1 – Awareness of stakeholders and sustainable urban transport usage:** If public and urban residents (within their capacity to decide on trips made and mode used) learn about sustainable urban transport options and benefits (Output 5 – Technical Component), they will then be more aware of their benefits and opportunities from having it and using it (Technical Component Intermediate Outcome 4), demanding more and better urban transport and promoting the improved individual and institutional commitment to sustainable urban transport (Outcome 1).
- Causal pathway 2 – Institutional mechanism development for effective coordination and monitoring:** If relevant Multisectoral Working Groups are created and supported with the appropriate rules and tools (Output 1 – Technical Component and Output 1 - Financial Component), then appropriate coordination and intervention mechanisms for the transformation will become operational (Technical and Financial Components’ Int. Outcome 1), making progress in designing and passing the institutional and regulatory reforms required to create the institutional conditions to transform the urban transport sector into a low-carbon one (Outcome 1).
- Causal pathway 3 – Urban transport GHG emissions monitoring as a means to improve policy and decision-making in urban transport:** If adequate, usable, and updateable GHG estimation and MRV systems for the urban transport sector are developed and tested (Output 2 – Technical Component), then public officials and other policy and decision-makers will be able to understand the relationship between urban transport, GHG emissions and sustainability (Int. Outcome 2 – Technical Component), and will be able to use that information to support sustainable urban transport policy making and programme and project design (Outcome 1).
- Causal pathway 4 – Improved framework conditions and urban transport transformation:** If the NSP designs and executes capacity building plans, hires consultants to propose policy,

regulation, institutional reforms and financing changes, and provide other technical support, and, at the same time, the NSP supports local governments in preparing and implementing sustainable urban transport elements in their investment plans (Outputs 3 and 4 – Technical Component and Output 3 – Financial Component), then national and local governments will experience improved framework conditions, enforcement capabilities and individual capacities to promote sustainable urban transport (Technical Component Int. Outcome 3, Financial Component Int. Outcome 3), producing more robust, implementable and financeable sustainable urban transport policies, programmes and projects (Outcome 1), and also advancing in the implementation of improvements to transit and NMT infrastructures and services to promote their use (Outcome 2).

- *Causal Pathway 5 – Improved transit or NMT services or infrastructures increases the use of sustainable urban transport in Lima.* If investments and interventions towards transit and NMT infrastructures and services are supported with and encouraged by financial support and incentives (Output 2 – Financial Component and Output 4 – Financial Component), then governmental institutions will be encouraged to make service and infrastructure improvements for transit and NMT (Financial Component Int. Outcome 2), which will be instrumental in retaining traditional users and attracting potential new users to these more sustainable urban transport options (Outcome 2).

1.2 Focus of the Evaluation and Learning Exercise

In accordance with its Terms of Reference⁹ (ToR), this ELE seeks to address the following General ELE Questions (ELEQs):

- Has the NSP achieved its planned results?
- Has the NSP started to trigger transformational change?
- What can be learnt from the NSP?

The General ELEQs presented above were broken down and operationalised into Specific ELEQs that are answered in this report. In Table 1, the General and Specific ELEQs are mapped against the Organisation for Economic Co-operation and Development’s Development Assistance Committee’s (OECD DAC) evaluation criteria¹⁰, which are widely used as international standards for evaluations of 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 NAMA Facility Technical Support Unit (TSU), and reported in Annex C.

⁹ The ELE Terms of Reference is provided in G.1.

¹⁰ Relevance, Effectiveness, Efficiency, Impact, Sustainability. The ELE Team added a 6th criteria, namely Learning.

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)
Has the NSP achieved its planned results?	To what extent does the NSP address an identified need (by national and local governments, urban transport users, transport providers)?	Relevance (Section 3.1)
	To what extent has the implementation of the NSP achieved intended outcomes in the short, medium, and long term?	Effectiveness (Section 3.2)
	To what extent was the delivery of outputs timely and to expected quality standards?	Efficiency (Section 3.3)
Has the NSP started to trigger transformational change?	What evidence is there that the NSP has been contributing 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 NSP funding period?	Sustainability (Section 3.5)
What can be learnt from the NSP?	What key lessons can be learnt to the benefit of the legacy of this NSP, other NSPs and the NAMA Facility as a whole?	Learning (Section 5.1)

In addition to the standard questions above, the ToRs for the TRANSPerú NSP asked the ELE Team to also address the following NSP-specific questions, which have been integrated in the ELEQs included in the ELE Matrix in Annex C. The reference to the specific question in the matrix is given between parentheses.

- How decisive for the successful transformation was the NSP’s holistic approach of financial and technical cooperation and the outlook of KfW’s credit support and additional direct assistance for the configuration and implementation by Deutsche Klima und Technologieinitiative (DKTI)? This was measured via the following elements:
 - Was the NSP able to mobilise public or private investment towards sustainable urban transport at the desired scale in Peru? If not, has there been some analysis as to why the mobilisation did not take place? (ELEQ 2)
 - What evidence is there of a shift in attitudes towards Transit and Non-Motorised Transport (NMT) for urban mobility in Peru? To what extent can that shift be attributed to the NSP’s work? (ELEQ 2 and ELEQ 4)
 - Was the proposed Policy-Based Loan (PBL) scheme adequate as an incentive framework to promote reforms that require multi-sectoral collaborations? (ELEQ 2)
- To what extent did the NSP gain value or add value to other donor-supported sustainable (urban) transport initiatives at the national or subnational scales? Which types of initiatives prove to have the largest potential for synergies? (ELEQ 2.1)

-
- How relevant and effective was the Steering Committee for the TRANSPerú NAMA for NSP progress? Are its members showing commitment and support to the desired transformative change effort? (ELEQ 3.1)
 - How did the COVID-19 pandemic influence the urban transport sector in Peru and did the NSP contribute to a resilient response from the sector to this unexpected context? (ELEQ 1.2 and ELEQ 2)
 - To what extent did the NSP manage to mainstream a gender perspective into the project's implementation? How did the NSP contribute to a more equitable gender perspective in the urban transport sector in Peru? (ELEQ 2)

1.2.1 The NAMA Facility Transformational Change Framework

Some words need to be spent about 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 NAMA Facility, and therefore of NSPs. The NAMA 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”*¹¹. The NAMA Facility ToC explains how Transformational Change is expected to be achieved through its outputs and outcome. The ToC is broad, and there are different ways in which Transformational Change can be achieved through the NSPs. Figure 3 illustrates three dimensions that interact and reinforce each other to produce NSP-induced Transformational Change. Each NSP 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 Transformational Change framework summarised in Figure 3 is presented in Annex B.

The ELE used the Transformational Change Framework to assess the NSP'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. The right end of Figure 3 shows the minimum level of signals of each of the three transformational change dimensions that NSPs are expected to have achieved by respectively their mid-line and end-line.

¹¹ <https://www.nama-facility.org/concept-and-approach/transformational-change>

Figure 3. NAMA Facility Transformational Change Framework for NSPs

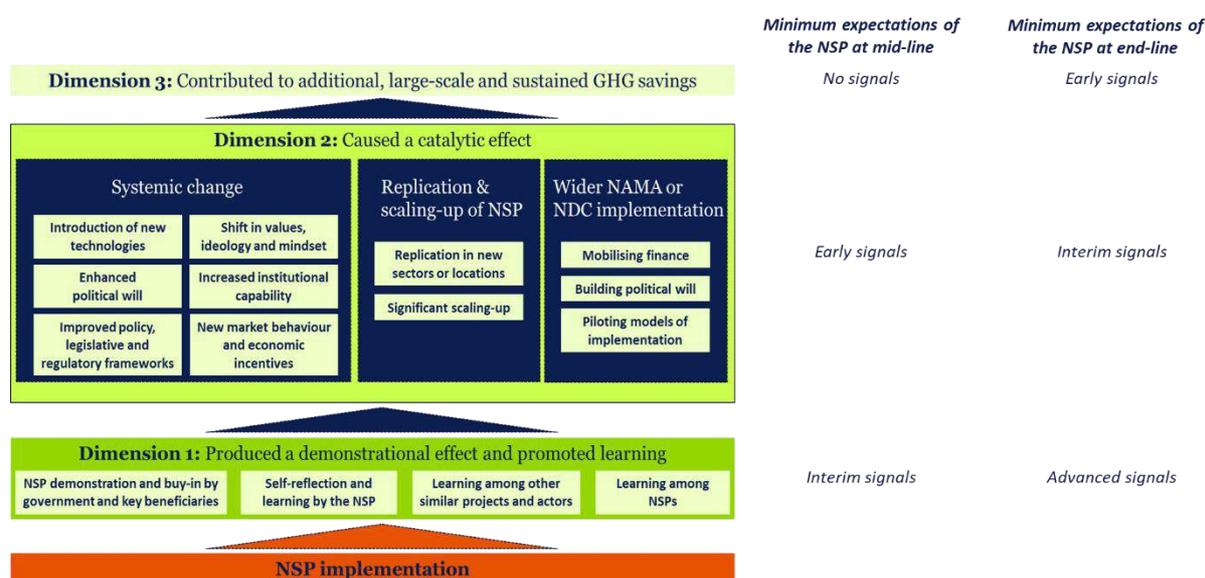


Table 2. Transformational Change “Signals” assessment by ELEs

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 NSP but 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.

2 Methodological approach

The ELE entailed activities under four main phases: Inception, fieldwork, analysis, and reporting.

During the Inception Phase, the ELE Team conducted a review of key NSP documentation including the NSP Proposals (Technical and Financial Components), Annual and Semi-Annual Reports, the NSP Monitoring and Evaluation (M&E) Framework, and other public documents (see the full list of documents reviewed in Annex G). Following that, the team used the information from the document review to **develop a retrospective ToC diagram** (see Figure 1 and Annex A for the validated version).

The data from the document review and the ToC served as a reference point to **develop a tailored matrix including the ELEQs** (ELE Matrix – see Annex C), which the ELE Team **integrated with the initial hypotheses** to be tested during the fieldwork. At the same time, the ELE Team worked on the organisation of the fieldwork interviews. For that, **they applied a purposive sampling approach of the key informants according to their level of involvement with the NSP**. In this way, the ELE Team grouped them in **three (3) general categories: (i) NSP Team**, i.e. members of the NSP Delivery Partners and Implementing Partners, the performance of whom is directly assessed by the ELE; **(ii) NSP Stakeholders**, i.e. individuals who have actively supported one or more NSP activities; and **(iii) Third Parties**, i.e. individuals who received one or more NSP activities (e.g. were part of the audience of an event or training), or who were not involved with the NSP, but are working on similar or relevant issues. This helped the ELE Team to test and triangulate the evidence and to assess its strength. Table 3 summarises the number of interviews and people interviewed (some calls had multiple interviewees) by each sampling category. For a detailed list of the institutions and organisations interviewed, refer to Annex G.

Table 3. Overview of the number of interviews and interviewees by sampling category

	NSP Team	NSP Stakeholders	Third Parties	TOTAL
No. interviews	10	9	7	26
No. interviewees	15	15	7	37

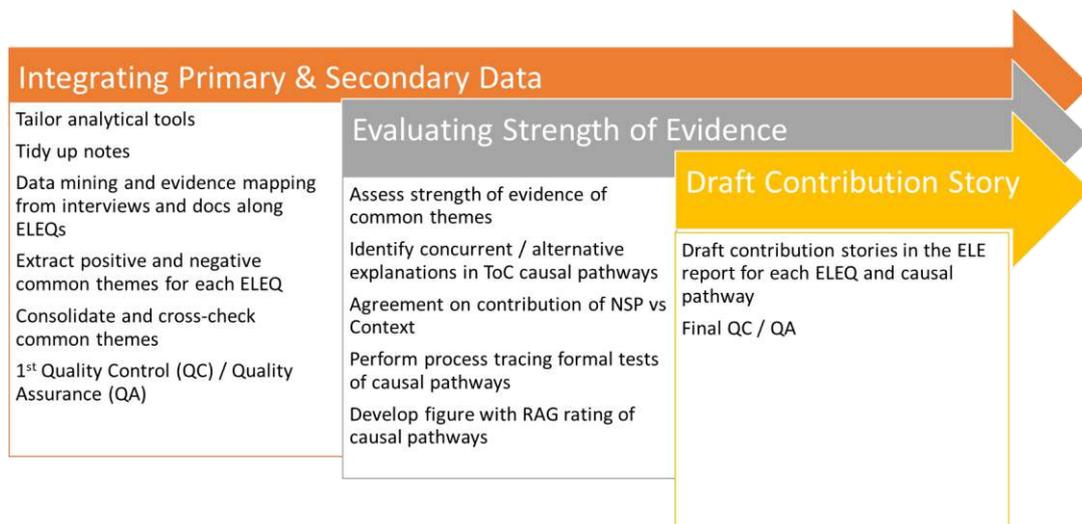
The Fieldwork Phase began with an ELE Kick-Off Workshop on 10th August 2021. The workshop was conducted in a virtual setting and was attended by six (6) participants from the NSP Team and ELE Team. The purpose of the workshop was to review, clarify and validate: (i) purpose, scope, and expectations of the ELE and (ii) the NSP's ToC. During the workshop, after an introduction, a Q&A session on the ELE purpose and scope, and a discussion about the NSP Team's expectations from it, the NSP Team had the chance to present their understanding of the key elements of the NSP ToC. This was followed by questions from the ELE Team, and the ELE Team then presented their point of view on the NSP ToC. **The key outcome of the Kick-Off Workshop was the finalisation of a validated NSP ToC diagram** (see Annex A).

The initial workshop was followed by **12 days of primary data collection using in-depth interviews with the NSP Team and Key Informant Interviews (KIIs) with NSP Stakeholders and Third Parties.** **The general ELE Interview Guides** prepared during the inception phase **were reviewed and tailored to the specific interviews on a daily basis.** The Guides followed the ELEQs and the general structure

was kept consistent among interviewees from the same sampling category, but the content and wording of the questions were tailored to capture key knowledge from specific informants, cover knowledge gaps, or simply test hypotheses or triangulate specific information. Further, an evaluation diary was used, where each evaluator noted down main takeaways and questions on a daily basis. This allowed for the three evaluators to exchange information on a real-time basis as all three evaluators couldn't participate in each interview. **Following the intense period of interviews, although with a few key interviews left to be conducted, the ELE Team prepared and executed an ELE Validation Workshop on 24th August**, also held in a virtual setting, with the NSP Team. The main objectives of the Validation Workshop were to **review, discuss and validate the preliminary ELE findings, re-tailor the NSP ToC and identify lessons learned**. The fruitful discussion on preliminary ELE findings allowed the ELE Team to validate them in collaboration with the NSP Team and identify and discuss recommendations as laid out in section 5.

The final part of the fieldwork moved the ELE Team into the **Analysis Phase**. Figure 4 illustrates the different steps taken to analyse the data.

Figure 4. Summary of the ELE Analysis Methodology



For drafting the contribution story, a Red-Amber-Green (RAG) rating was used. Section 3 of this report uses the evidence and emerging themes discussed above to present the ELE Team’s findings in terms of the performance of the NSP against the OECD DAC criteria (relevance, effectiveness, efficiency, impact, and sustainability) and (under the effectiveness criteria) its performance against the ToC intermediate outcomes. Performance is summarised for each DAC criterion and/ or ToC intermediate outcome, in the form of a RAG score, as follows: Green – good/ very good performance; Amber - some progress but problems also identified; Red - serious deficiencies in the performance.

To assess the strength of the evidence behind the emerging themes extracted from the interview notes or documents, the ELE Team cross-referenced each emerging theme with its sources. Then, the Team went through all the emerging themes again and rated the strength of the evidence behind each of them according to the scorecard in Table 4.

Table 4. 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

The final ELE phase is the Reporting Phase. During this phase, the ELE Team compiled this report which has undergone internal quality assurance and one round of comments from the NSP Team, the NAMA Facility TSU and its Donors.

The COVID-19 pandemic imposed some methodological challenges on the ELE. The main limitation was the need to conduct the fieldwork in a virtual mode. Although the ELE Team was able to arrange interviews with an appropriate number and variety of stakeholders, the virtual nature of the interviews limited it in two ways. Firstly, the ELE Team was not able to be personally immersed in the NSP’s national and local context. To some extent, this fact may have limited their full understanding of the contextual dynamics influencing the NSP, although the participation of an experienced local consultant in the ELE Team has mitigated this issue to a great extent. Secondly, given travel between interviews was not required it was possible to schedule many back-to-back interviews, which meant the team had to concentrate and absorb large amounts of information for a long duration. This challenge was reduced by extending the fieldwork phase from the initially foreseen two weeks to three weeks to allow the interviews to be more spread out, and by the participation of at least two ELE Team members in all interviews.

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 NSP’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 NSP

Relevance

1. To what extent does the NSP address an identified need (by national and local governments, urban transport users, transport providers)?

To assess the relevance of the NSP, the ELE Team assessed: to what extent the project addressed the needs of the national and local governments, of transit operators and urban transport users (ELEQ 1); to what extent the project helped deliver Peru’s GHG emissions reduction commitments (ELEQ 1.1); and whether any changes in the context in which the NSP was being executed may have caused the relevance of the NSP to change (ELEQ 1.2).

According to the information posted on Peru’s Infocarbono Website¹², the National GHG Inventory (which reportedly used the GHG estimations and MRV designed within the framework of the NAMA), **the transport sector contributed an estimated 36.4% of all GHG emissions from the energy sector, and 10.25% of the total emissions in Peru** (MINAM, 2021). This figure confirms the NSP’s rationale for designing and implementing actions that reduce GHG emissions from the transport sector as a significant contribution to meeting Peru’s GHG reduction commitments.

ELE interviews confirmed that before the NSP national and local governments lacked legal and technical capabilities to drive any kind of transformation of the urban transport sector. Peru’s 1992 new constitution made urban transport a local government issue and limited the authority of the national government and the MTC in the sector. It also labelled urban transport as a private service, which added an additional barrier for any tier of government to regulate and/or intervene on urban public transport.

Previous efforts at improving urban transport in the Lima and Callao Metropolitan Area had actually worsened the problem, adding new organisations and stakeholders to an already crowded and uncoordinated urban transport context. For example Lima’s metro line 1, the “Metropolitano” BRT and the “corridores” were introduced to try and organise Lima and Callao’s “chaotic” transit systems and traffic. The introduction of these mass transit solutions added more stakeholders (e.g. AATE and the Metropolitano management agency) to an already crowded institutional landscape for urban transport, within which there was already no incentive for coordination. In 2004 and 2012, the Japanese International Cooperation Agency (JICA) had prepared a transport master plan for Lima and Callao that combined metro, BRT and other modern transport alternatives, but provided no solutions on how those interventions could be implemented with the overlapping competencies and limited

¹² <https://infocarbono.minam.gob.pe/>

technical capacity in place. During the ELE many interviewees mentioned that, for a long time, cycling was considered to be only a recreational activity and not a proper alternative for urban transport, a perception that it is only now starting to change.

Small and mid-sized cities in Peru have tried to make reforms to their transport systems to improve the service and adopt more modern vehicle and energy technologies, but have confronted multiple barriers. The interviews evidenced that the governments of many small and mid-size cities in Peru had previously tried to formulate urban transport policies, plans and projects, but that they often failed to produce any improvements. This was due to implementation barriers including: (i) legal limitations to intervene or regulate transit due to its “private service” designation, (ii) financial and technical resource constraints to make studies and/or to formulate and implement large scale urban transport services and infrastructure, (iii) strong lobby from citizens in favour of cars and personal means of mobility, and, as a result, (iv) the difficulty or reluctance of local administrations to commit to large-scale transformation efforts which would have a high political cost and could not be delivered within the same administration period.

The project both benefitted from and was hindered by the COVID-19 pandemic. Although the impact of the pandemic related more to the effectiveness and efficiency of the delivery of the project, there were some implications for its relevance. For example, the restrictions to car mobility during the pandemic had promoted the use of bicycles for urban transport. In addition, even though transit had been operationally and financially affected by the restrictions introduced to control the pandemic, the resulting crisis had encouraged Peruvian lawmakers to pass regulations that increase the ability of the public sector to intervene and manage transit because, as a requirement to be eligible to get a financial subsidy, traditional transit operators are encouraged to accept monitoring by the authorities¹³. Without the crisis created by the pandemic, it would have been very unlikely that traditional transit providers would have voluntarily allowed the authorities to monitor or control their operations.

Although it had serious consequences for the project’s effectiveness, in a way, Peru’s recent period of political instability at the national level validated the relevance of the NSP. In fact, the NSP and other international cooperation organisations were able to mitigate the impact of the high staff turnover, particularly of high-level decision-makers, by ensuring continuity of efforts of sectoral reforms.

The ELE Team, therefore, considers the TRANSPerú NSP to be very relevant, finding that a vast majority of the documents and the interviewees confirmed that the NSP was indeed addressing needs from the Peruvian urban transport sector, particularly from the national and local government sides. **However, the NSP’s ToC and causal pathways focus on public sector reform** and assume that this will then “trickle-down” into behavioural change and more conscious actions by private sector

¹³ SUPREME DECREE N°. 022-2019-MTC approved the Policy of subsidies for urban passenger transport of the Integrated System of Urban Transport of Lima and Callao, but subject its application, that is, the granting of subsidies, to two products: i) the Master Plan for Transportation to 2050; and ii) the Sustainable Urban Mobility Plan. According to Supreme Decree 022-2019-MTC, the diagnosis of the Master Plan should have been completed in 2019, but as of October 2021 it has not been published. Likewise, with regard to the Sustainable Urban Mobility Plan, in September 2020 the ATU called for expressions of interest to be presented for the consultancy “*URBAN MOBILITY PLAN FOR THE LIMA AND CALLAO METROPOLITAN AREA BY 2040*”, no results have been published on its progress. Instead, what the ATU has created is a “coordination platform” to discuss “progress” with NGOs linked to the NSP, but that do not constitute an activity established within the norm (<https://www.limacomovamos.org/planmet2040/>).

organisations and citizens. Unfortunately, Peru’s 1990s transit regulatory reforms made transit an uncontrolled and unregulated *private service*. This lack of public sector coordination led to transit becoming dominated by private single-owner-operators, many coming from lower income and social groups, who made a living from running their buses in popular routes often with strong competition with other single-owner-operators. This presents some significant limitations to the relevance of the public sector-focused NSP. In fact, (i) it gives little power to the public sector to control or impact on how the private transit services are run or which types of vehicles are used, and (ii) efforts from the public sector to intervene to improve or make urban transport more sustainable will likely face resistance from the private single-owner-operators whose business (and incomes) may be affected. . **Transit operators, transit or NMT users, and civil society are crucial stakeholders in the sector, and the lack of interventions directly targeting these groups means that the project is relevant in dealing with only some elements of the problem** (see sections 3.2.1, 0 and 0 for additional details on this). **That is why the ELE assigned an amber rating to the relevance of the NSP.**

3.2 Effectiveness of the NSP

Effectiveness	2. To what extent has the implementation of the NSP achieved intended outcomes in the short, medium, and long term?
	Outcome 1: Improvements to individual and institutional capabilities for the transformation of Peruvian urban transport into a Low Carbon Sector.
	Outcome 2: Improved provision of transit and NMT services and infrastructures lead to increased use

3.2.1 Outcome 1: Improvements to individual and institutional capabilities for the transformation of the Peruvian urban transport sector into a more sustainable one

The NSP made significant advances in improving the Peruvian public sector’s technical and legal capabilities to formulate, implement and, where applicable, enforce policies, regulations and projects that contribute to making urban transport in Peru more sustainable. These improvements focused on the national government, Lima and Callao’s authorities and selected Peruvian mid-sized cities. **However, the effort failed to reach the expected level of transformation due to two main external factors:** the inability by the government to create the NAMA Steering Committee that was supposed to be leading the regulatory and institutional reforms and the efforts to achieve the Policy Matrix’s objectives, and high turnover of senior (decision-making) staff within the national government associated with Peru’s recent political struggles.

The NAMA Steering Committee that was expected to lead and coordinate the sectoral transformation was never formally created by the Government of Peru, and many of the institutional and regulatory reforms were pushed forward and adopted with the support of the NSP instead. This was due to the fact that Peru’s public sector legal framework has specific restrictions regulating multisectoral working groups (such as the Steering Committee): they are not to exist for more than 6 months and they can only define paths of action and goals, while execution and monitoring of those actions are assigned to the single agencies. Between 2017 and 2020, the NSP supported the creation and operation of 5 NAMA multisectoral working groups. This was not an ideal situation as the NSP had not been designed – and therefore was not equipped – to coordinate and

monitor the progress of the NAMA. Consequently, the responsibility to maintain the NAMA's implementation cohesive was placed onto the NSP, although this should have been done by the NAMA Steering Committee.

The public sector landscape for urban transport has evolved quite favourably with the support of the NSP. Despite the political turbulence, by 2021, a clear political commitment to pursuing sustainable transport remained in the government. This was evidenced by the formulation and adoption of the National Sustainable Urban Transport Policy, the creation of Lima and Callao's Single Transport Authority (ATU), the consolidation of PROMOVILIDAD¹⁴, and the creation and financing of a national Public Urban Transport Investment Plan. These developments have enabled the public sector to overcome prior policy and funding limitations by creating a formal institutional framework to lead policy implementation, and also channel national and international funding into urban transport. This is highlighted by the additional support, grants and loans from KfW, the Agence Française de Développement (AFD), the World Bank and the Inter-American Development Bank (IDB) (among others) to continue capacity development activities and finance future interventions.

Nevertheless, many interviewees expressed concerns about the ability of the MTC and ATU to continue the transformation of the urban transport sector. Some of the proposed reforms and policy changes suggested by the project were adopted only partially or with changes after going through the political process of review and adoption. Moreover, ATU is not the technically focused and independent institution that the design of the NSP assumed, as political manoeuvring can still be used to avoid complying with new regulations. For example, Lima's Municipality adopted in 2017 a "*Manual containing the design criteria for cyclo-inclusive infrastructure and the guide its use by cyclists*", produced by the NSP, detailing conditions for cycling infrastructure design, implementation and use, with which Lima's *distritos*¹⁵ (the sub-municipal governments) would need to comply. However, enforcement limitations by the Municipality of Lima allowed many *distritos* to overlook these criteria, resulting in cycling infrastructure being perceived as unsafe by traditional and new cyclists. This perception became a barrier to promoting cycling as an urban transport alternative. In addition, initiatives to promote vehicle scrapping and introduce cleaner technology vehicles have moved slower than expected.

NSP-supported estimations of GHG emissions from urban transport and the establishment of MRV systems were instrumental in preparing the Nationally Determined Contributions (NDC) commitments for the transport sector, although with some clear limitations. Many interviewees exalted the contribution that the NSP's GHG estimation and MRV systems had on the sector, as this work became the backbone of the analysis and definition of NDC commitments that Peru presented to the international community and have also been at the heart of the preparation of climate statistics for the sector. However, the interviews highlighted two limitations of this work. Firstly, most of the estimations and reports prepared with support from the NSP focus on the Lima and Callao area, and while they consider emissions from cars and motorcycles, they do not include freight transport estimations. Secondly, NSP-supported data often relied on old or too high-level urban transport data

¹⁴ PROMOVILIDAD is the short name for the "Programa Nacional de Transporte Urbano Sostenible", which is a formally established programme led by the MTC aimed at promoting sustainable urban transport in cities of over 100,000 inhabitants.

¹⁵ Lima has a particular political administrative scheme in which a Municipal Government exists to "rule" over multiple *distritos* (sub municipal governments), but these *distritos* retain significant administrative and financial autonomy.

or statistics. Lima relies on studies from the Japanese International Cooperation Agency's (JICA) and on the citizen observatory *Lima Como Vamos'* high-level data to gauge the performance and evolution of its urban transport, neither of which is sufficient to determine the performance of urban transport. A priority should be now to validate the new estimations against real-world data to ensure its accuracy or reliability to support decision-making.

Creating and consolidating the Peruvian public sector's urban transport management capabilities has proven challenging. Creating Lima and Callao's ATU required merging four institutions¹⁶ into a single one that in under two years has grown to over 4,000 staff. 65% of ATU's staff perform administrative or operational tasks, legacies of their institutions of provenance. Small and medium-sized cities have also faced their difficulties, including legal limitations to manage or intervene on the "privately-owned" transit services, low pay thresholds that make it difficult to attract and retain trained professionals, and budgetary limitations that prevent large urban transport projects from being implemented.

The lack of engagement and capacity building of transit operator companies and common citizens by the NSP leaves a large part of the transformation effort yet to be addressed. The share of the transit services currently under public sector management and control is limited to the 10% of transit trips in Lima, served by the Metro, the BRT "*Metropolitano*" and the bus lines "*Corredores Complementarios*". Transforming transit beyond that will require a business model transformation that can hardly be achieved without the involvement of existing private transit operation companies. In addition, structural reforms like the ones planned by the TRANSPerú NSP and NAMA need to be properly explained and promoted to the final users. The ELE found that public awareness was not sufficiently targeted by the NSP and this, coupled with the reported low quality of public transit services and lack of appropriate safety infrastructure for NMT in Lima, risks alienating transport users from the TRANSPerú vision.

The NSP has helped to introduce gender equality considerations in the urban transport agenda, although they will take some time to be mainstreamed. Considering that transit is used in large part by women, any action to promote it has to incorporate gender equality considerations. Multiple stakeholders acknowledged that gender equality had entered the urban transport agenda, thanks to the guidelines on transport and gender equality and the anti-harassment transit protocol for the Lima-Callao Metropolitan area produced under the NSP.

In conclusion, the NSP made a positive contribution in improving the individual and institutional capacities of the public sector, particularly in terms of policy and institutional reforms promoting the sustainable transformation of urban transport in Peru. **However, the lack of engagement of transit operators and urban transport users, and some political and administrative issues made the changes or reforms take longer than expected or be adopted only partially. Because of this, the ELE Team assigned an amber colour code to the NSP's effectiveness in achieving Outcome 1.**

¹⁶ Protransporte, AATE, Lima's Transport Management Agency, and Callao's Transport Management Agency

3.2.2 Outcome 2: Improved provision of transit and NMT services and infrastructures lead to increased use

Outcome 2 is linked to some improvements in Lima and Callao's mass transit and NMT infrastructures, vehicle homologation and fuel efficiency for light vehicles, the modernisation of the transit vehicle fleet. **According to the NSP design, Outcome 2 relies on the effective delivery of the NSP, particularly of its Financial Component (see causal pathway 5 in section 1.1). In fact, advances in the urban transport sector transformation (i.e. policy reforms, new infrastructure, service improvements in the NAMA Policy Matrix) should have triggered the disbursement of the Financial Component's funds. However, ELE evidence shows critical issues in the monitoring and achievement of these advances by the NSP.**

The NSP team believes that monitoring and compliance with the Policy Matrix was not their responsibility, as the matrix's outputs have to be delivered by the NAMA, not the NSP. The ELE team agrees that the NSP was not responsible for the *delivery* of many of the NAMA outputs, but considers it was within the NSP's scope to monitor the NAMA Policy Matrix' progress and validate its compliance before disbursing the Financial Component funds as rewards for having met the proposed targets. The NSP's *monitoring* requirement is included in its Outcome Indicator 1, which states that *"at least 75% of the 77 outputs according to the Policy Matrix are achieved"*, and therefore its progress should be assessed by this ELE. Concerning *compliance*, the ELE team assessed this indicator against what is stated in Section 2.7 of the NSP Proposal:

"[...] the Financial Component provides a financial incentive to reach the development goals outlined in the [policy] matrix (payment of Financial Component grant and loans in two tranches upon timely compliance based on a policy-based lending agreement between MTC, KfW and MEF)" (Technical Component and Financial Component Proposal, Section 2.7)

Furthermore, some output indicators of the Financial Component were linked to goals that included the construction of Metro Line sections and the implementation of 100 km of cycle lanes. Also, the NSP was expected to help prepare pre-investment studies and help to mobilise additional funding.

Based on this, the ELE Team concluded that (i) disbursements associated with the Financial Component should have been supported with the compliance of the "programmatic outputs" incorporated in the NAMA Policy Matrix as included in the NSP Proposal, and (ii) the NSP should have monitored and verified that at least 75% of those 77 outputs in the Policy Matrix were achieved.

The failure to comply with the NAMA Policy Matrix's output goals did not have any consequences in the disbursement of the NSP Financial Component's funds. Indeed, all the EUR 44 million in PBL and grants have been disbursed, and, although the actual disbursements may have been delayed due to administrative issues between KfW and the Peruvian Government, disbursement conditions were validated in 2017 and 2019, which roughly correspond to the schedule in the NSP Proposal. The ELE Team found that, instead of using the Programme 1 and Programme 2 Outputs in the NAMA Policy Matrix, two multisectoral working groups (one for each tranche) led by Peru's Ministry of Economy and Finance (MEF) convened with KfW to define the disbursement-approval criteria for the Financial Component, using the original NAMA Policy Matrix conditions very loosely. **The outputs of the compliance matrices used to justify the Financial Component's disbursements were reviewed by the ELE Team and found to be less ambitious than those in the Policy Matrix in the NSP Proposal.** For

example, subcomponents of the Policy Matrix about the design or implementation of feeder services to the Metro Line 2, expansions and improvements to Lima’s “Metropolitano” BRT system, and efforts to improve regional transport services between Lima and the surrounding region are missing from the compliance matrices used to approve the disbursement of the NSP’s Financial Component funds. At the time of the final Policy Matrix progress review in 2019, progress in other components concerning transit, NMT service and infrastructure improvements was below the expected level to trigger the funds’ disbursement. The unified fare collection system, expected to be in place by then, was only at the technical study stage. Pedestrianisation pilot plans in smaller cities that had to be over, had not even started yet. The update of the homologation specification sheets for cleaner vehicles was behind schedule. The scrapping programme that was to support vehicle fleet renewal was behind schedule in Lima and had not started in other cities.

No justification was provided by the NSP team on the creation and use of different matrices, particularly as they omit reports on some components or subcomponents, or to mention why disbursements of NSP funds were approved for less ambitious outputs than those originally considered. The ELE Team queried the NSP for minutes or documents signed between the Peruvian government, the NSP or the NAMA Facility in which they justified and approved the omissions and changes to the outputs. The NSP did not provide such documentary proofs.

The NSP has not included the progress of Outcome Indicator 1 (i.e. progress on the delivery of the Policy Matrix) in its annual and semi-annual reporting to the NAMA Facility but did not provide any justification on why.

The NSP’s work helped obtain additional funding for the national government and Lima to advance their urban transport agendas, but little evidence was found of mobilisation of public funding for small and mid-sized cities and private finance. At least EUR 80 million in additional international funding from the AFD and DKT were secured as a direct result of the NSP’s efforts to support PROMOVILIDAD’s work and NMT developments over the coming years. However, no reports were made about private investment mobilised by the NSP. In addition, it was reported that city governments different from Lima still lack the resources to plan, execute and manage large transit or infrastructure investments.

Concerning Lima’s sustainable urban transport sector improvements included within the Financial Component’s logframe, the NSP’s 2020 Financial Component Annual Report states that the implementation of new metro lines is behind schedule, with technical and financial problems. Improvements for NMT are also behind schedule, while safety issues with cycle lanes have also been reported. As of the end of 2020, only 6 km out of the 27 km of the Metro Line 2 were constructed, due to multiple technical delays and problems linked to the pandemic. The tendering and design process of Line 3 and 4, respectively, was also behind schedule in the Policy Matrix. Concerning NMT improvements, only 20 km out of the over 30 km of bike lanes that were expected to have been enhanced are included in Lima’s government investment plans.

Based on the delays in the improvement of the transit and NMT infrastructures and services, and, primarily, the circumstances that led to the Financial Component being disbursed without compliance with the NAMA Policy Matrix Output goals, the ELE Team assigned a red rating to the NSP’s effectiveness in achieving Outcome 2. To clarify, the problem is not in the revision of the conditions per se, but in the fact that they were made without consultation or validation from the

NAMA Facility. This would have been crucial given that the Financial Component funding was expected to operate as a reward for achieving the broader NAMA Policy Matrix goals.

3.2.3 How external factors impacted the NSP's effectiveness

The project had a late start due to delays in the intergovernmental agreements, but this had no significant impact on the NSP's effectiveness as Peru's urban transport sector conditions remained constant between the expected and the real start date.

The inability to formally establish the NAMA Steering Committee effectively left the NAMA with a leadership, coordination and monitoring void for its execution. The NSP assumed the task of maintaining the interest of the government in sustainable urban transport and on designing and supporting the reforms and did this despite having been designed to provide technical support. Considering these resource limitations, the NSP did a very good job in supporting important institutional and policy reforms.

The NSP was implemented during a particularly turbulent time in Peruvian politics: the country has had four presidents in about 6 years. The political instability has caused a high turnover of decision-makers, which affected the speed at which the NSP progressed. Many interviewees reported that the constant change of ministers and other high-level officials, especially at the national level, required the NSP to newly engage and seek buy-in from new decision-makers to support the NAMA agenda.

However, the high staff turnover had the unexpected benefit of helping the NSP position itself as a key ally and asset for transport sector improvements. While personnel and agendas were changing, the NSP was able to become a solid point of reference for urban transport support. The NSP's politically neutral status and its recognised strong technical backing facilitated the opening and consolidation of the project's relationships with new officials.

Because COVID-19 hit the transport sector hard, it helped disrupt the status quo and opened to a more prominent role of the public sector in it. The onset of the COVID-19 pandemic affected severely the transport sector, as it reduced travel demand, and forced transit operators of all kinds to operate with reduced capacity. To tackle this, the government provided emergency subsidies to transit operators to continue to operate the routes despite the reduced ridership. Conditions that were introduced to justify the payment of the subsidy involved acquiring and using equipment that confirmed adequate service provision. Even though these requirements made access to the subsidies more difficult for informal and smaller operators, they achieved the formalisation of some transit operators and increased the sector's acceptance of more active management of the public sector.

3.3 Efficiency of the NSP

Efficiency

3. To what extent was the delivery of outputs timely and to expected quality standards?

Based on the evidence obtained and analysed, the ELE Team concluded that the lack of a formal NAMA Steering Committee created a vacuum of coordination, guidance and monitoring roles that the NSP stepped up to fill, but it did so without the capabilities, tools and resources required for such a leadership role. In the NSP Proposal, the NAMA Steering Committee had a very important role:

it would serve as the overall coordinating body of the NAMA; it would develop annual work plans, and coordinate and monitor their compliance; the NSP would report to the Steering Committee, which in turn would report the progress in NAMA implementation to the Vice Ministers to facilitate coordination and prepare decision making at the strategic level. Therefore, the legal constraint to formally establish the NAMA Steering Committee effectively meant that the NSP and the NAMA were lacking this guidance and execution capability. The NSP valiantly assumed the leadership role, but it did so with the capabilities, tools and resources of a supporting institution. The problems that the NAMA and the NSP have had to achieve the desired outcomes (see Section 3.2 above) are consistent with this analysis. A Mid-term ELE may have detected these steering and structure issues and proposed actions to mitigate their impact.

Despite the turbulent political context the NSP achieved significant progress: in its 2020 Annual Report, the NSP's Technical Component reported 8 of their 10 outputs to be on schedule. The Financial Component's Annual Report 2020 lists 3 of its 4 Output Indicators as being behind schedule. Many of the interviewees attributed these delays and problems to different causes, with some common ones being: the high number and diversity of stakeholders involved in urban transport, the over-ambitiousness of the NAMA and NSP's objectives, the initial underestimation by the NSP of political and administrative hurdles to sectoral transformation, the COVID-19 pandemic, and the political crisis in Peru.

The Technical and Financial Components achieved few synergies to advance towards sustainable urban mobility. Beyond sharing some indicators in the reporting structures, both presenting NSP Annual or Semi-annual Reports, or jointly participating in working groups (including those validating disbursement conditions), the ELE found no evidence of coordinated efforts between the two NSP components to achieve desirable synergies. No major NSP output or outcome could be attributed by the ELE to a combined or coordinated action of the two components.

Despite the difficulties, the NSP's Technical Component was able to push through key institutional, policy and regulation changes providing the basis to advance urban transport efforts. Lima and Callao's Single Transport Authority (ATU) and PROMOVILIDAD can be traced back to the multisectoral working groups created under the NSP. The National Urban Transport Policy and national guidelines for cycle lane implementation, the estimation of urban transport's GHG performance and the inclusion of urban transport actions within the MTC's multi-year investment plans were steps forward taken by Peru with the support of the NSP, particularly as they define a vision and specific responsible institutions or channels.

The key institutional structures created through the NSP's support are now pivotal in coordinating funding and actions for sustainable urban transport from development partners and international financial institutions. Sustainable urban transport interventions in the next few years have secured grants and loans that will be channelled through ATU and PROMOVILIDAD: PROMOVILIDAD is set to manage the DKT's investment of EUR 60 million in Peru's peripheral regions, and ATU is expected to help mobilise international finance into NMT and execute some funding from, the World Bank, the IDB and some remaining technical assistance funds from the NSP in Lima (see Section 3.5).

Even though staff trained by the NSP's Technical Component have changed jobs, a significant part of the knowledge has been retained in urban transport organisations. Also, trained staff relocations helped further disseminate their enhanced knowledge. One of the key concerns about the reported

political instability and high staff turnover was that the staff trained by the NSP would move to new positions, leading to the loss of newly acquired capacities by the organisations. However, ELE interviews confirmed that a good part of the knowledge acquired with the NSP's support had been passed on to colleagues and that trainees had often stayed in touch with former colleagues to support them. NSP's training was even more important as no higher education programmes in urban transport exist in Peru.

In conclusion, the deliveries of the NAMA and the NSP were significantly affected by the absence of the NAMA Steering Committee, which ultimately also hampered the NSP's achievement of its outcomes (see section 3.2). Despite the politically unstable context and being under-resourced for the task, the NSP assumed a temporary leadership role that brought about some important achievements. Therefore, the ELE Team assigned an amber rating to the NSP's efficiency.

3.4 Impact of the NSP

Impact

4. What evidence is there that the NSP has been contributing to the intended impact in the ToC (incl. transformational change)?

The ELE evidence shows that the NSP laid down foundations to support further transformations towards higher quality and more efficient urban transport sector in Peru. The changes made were important as they contributed to the reduction of the public sector complexity and competence overlaps. Although these changes and reforms still require further adjustments, they were important steps towards the improvement of the urban transport sector and its sustainability.

The decision made during the preparation of the NSP's proposal of not engaging private transit operators or the population at large may prevent the project from achieving its sector transformation and GHG reductions goals. During the interviews, it became apparent that the urban transport operations under the direct control and supervision of public authorities were a limited portion of the sector¹⁷. Achieving the transformation of the whole urban transport sector will require engaging and negotiating with private transit operators who satisfy most of the demand across Peru, and are likely to resist changes that would affect their business and livelihood. Communicating with and convincing urban residents is also essential as they are the ones who, through their individual mobility decisions, would define the success or failure of the transport reforms advocated.

Institutional transformation alone will not decarbonise the urban transport sector. Strengthening the public sector is important for the transformation effort as it promotes a better allocation of public resources into urban transport and proposes a path to be followed towards the sustainability goal, aligning national and local governments and international cooperation stakeholders. However, transit operators should be engaged throughout the transformation effort since they are the ones who will assume most of the capital investments and operational risks, and be the group most affected by the transformation in social (i.e. household subsistence) and economic (i.e. income and jobs displacement) terms. Users should also be involved, as they will ultimately determine to what extent

¹⁷ Transit operations under control of the government are Lima's Metro, the "Metropolitano" BRT and the Corredores Complementarios. Interviewees mentioned that these operations only served 10% of Lima's transit demand. No government-supervised or controlled operations were identified in any of the other Peruvian Cities.

urban transport will stay on the unsustainable path of mobility based on cars and motorbikes, congestion, and emissions, or whether it will change course towards more sustainable alternatives.

Below we use the Transformational Change Framework in Figure 3 to unpack the different dimensions of the NSP's pathway to transformation change.

Dimension 1: Producing a demonstrational effect and promoting learning

The ELE confirmed that the NSP maintained and increased the interest from the government in urban transport, achieving important institutional and policy changes that will reduce the need for the NAMA Steering Committee in the future. Some of the most important and lasting changes directly linked to the NSP's activities are: the creation of two institutions (ATU and PROMOVILIDAD) tasked with leading the transformation of urban transport in Lima-Callao and the rest of the country (respectively), the development and adoption of a National Urban Transport Policy, and the incorporation of urban transport in the MTC's multi-year investment plan.

The institutional and policy changes that the NSP promoted are operational and their functioning has been demonstrated, although, as discussed in section 3.2.1, further effort is required to consolidate and strengthen them to effectively lead the urban transport sector transformation towards sustainability. **However, the expected transit service and infrastructural improvements were not achieved** and their practical demonstration cannot thus be seen.

In addition, no new technologies, processes or business models were piloted by the NSP. Many technologies and systems will be required to improve and decarbonise urban transport like digital payments, intelligent transport systems, traffic light systems, adequate management of vehicular traffic in cities, integration of micro and macro mobility, among others, which have seen little advances due to the NSP's focus on public sector strengthening or regulatory reform. This appeared to many interviewees as a missed opportunity.

The ELE found little evidence of formal knowledge sharing work with other programmes. Interviewees did not mention any particular knowledge sharing initiatives that had been undertaken under the framework of the NAMA. The NSP's M&E reporting only mentions two articles on transport and gender issues (under Output Indicator 5.2), which in both cases were submitted for publication to the International Transport Forum Compendium.

Based on the above, the ELE team considers that only interim signals of learning and demonstrational effect can be attributed to the NSP.

Dimension 2: Caused a catalytic effect

As discussed earlier, the NSP focused its efforts on supporting the evolution of Peruvian public sector institutions within the urban transport sector to an institutional framework with clear responsibilities and some funding. Despite the pandemic, the political instability, the absence of the NAMA Steering Committee, and other policy and administrative constraints, the NSP has made advances in consolidating their roles. Furthermore, the NSP successfully supported the development of the National Urban Transport Policy, which is an important policy to lead the systemic change of transport in Peru.

The NSP has also clearly worked to support further NDC implementation by (i) providing transport sector GHG estimations (albeit with some data limitations), and (ii) helping to mobilise at least EUR 80 million in additional public finance for the NAMA implementation.

However, **these advanced signs of transformation of the urban transport public sector have not been mirrored by transit operators or users.** Given the significant stake that these two groups have on the transformation of the sector, there is a high risk of the NSP (and the NAMA) failing to deliver a full catalytic effect for the expected GHG emissions reductions.

The focus on Lima and Callao's urban Transport may have led the NSP and the broader NAMA to miss out on opportunities to support and advance the transformation of urban transport in small and mid-size cities. Several interviewees mentioned that, in recent years, many mid-sized cities in Peru like Trujillo and Arequipa have been trying to upgrade or improve their NMT and local transit offers, but have struggled to achieve their goals due to technical and financial limitations. The NSP provided some support in terms of consultancy work, but still maintained most of its efforts to the Lima and Callao Metropolitan area, as per the NSP proposal. Had it shifted resources towards support in these cities, the NSP may have been able to advance further along the transformation path, also providing relevant lessons for other small- and medium-size cities which are growing fast and may benefit more from a clear commitment to sustainable urban transport.

Therefore, considering the strong achievements in promoting systemic change in the public sector, while also considering the limited focus on transit operators, end-users and small- and mid-size cities, the ELE team could only see early signals of catalytic effect caused by the NSP.

Dimension 3: Contributing to additional, large scale and sustained GHG reductions

At the moment of the ELE, no GHG reduction linked to the NSP has been reported. In fact, although GHG reductions from the transport sector were experienced in Lima in 2020, as the NSP annual report itself confirms, these should be attributed to the mobility and transit service restrictions adopted to control the COVID-19 pandemic.

At the same time, following the evidence and considerations presented within dimensions 1 and 2, the NSP is unlikely to achieve large-scale and sustained GHG reductions, which would have required the buy-in of informal transit operators and citizens to the NAMA agenda. The transport sector commitments in the NDC¹⁸ confirm this conclusion, particularly as the NDC goals were reportedly based on NSP models and analyses. Three of the five NDC actions under the “sustainable transport component” are associated with government-controlled or run transit systems: Lima’s metro, BRT, and the bus lines “*Corredores Complementarios*” expect to achieve reductions of 0.124, 0.077 and 0.172 MtCO_{2eq}, respectively by 2030. A fourth action, related to scrapping and fleet renewal with a reduction of 0.105 MtCO_{2eq} by 2030 is also linked to public-run programmes, and make no considerations for private sector voluntary scrapping of vehicles. The expected emissions savings from the fifth NDC action area are linked to PROMOVILIDAD, which does involve savings from outside the public sector-controlled sphere, but these are estimated to be very small (0.064 MtCO_{2eq}, i.e. fewer than those estimated for the BRT of Lima). Other urban transport system interventions that could lead

¹⁸ An overview of the transport sector commitments listed in the NDC can be accessed at the following link: <https://www.minam.gob.pe/cambioclimatico/wp-content/uploads/sites/127/2019/01/4.-MTC.pdf>

to additional GHG emissions savings, such as acquiring and using electric buses or automobiles (which would require the commitment of the private sector) were not included within the NDC commitments, and this seems to reflect the public sector’s hesitancy to engage with the private sector.

As a result, there are currently no signals of the required additional, large-scale and sustained GHG emissions reductions that the ambition of the NAMA and NSP would require.

In conclusion, based on the fact that the advances in transformational change induced by the NSP have been lower than the expected levels on each of the three dimensions, the ELE assigned an amber RAG rate to the overall impact of the NSP.

3.5 Sustainability of the NSP

Sustainability

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

According to the evidence gathered, ATU and PROMOVILIDAD are unlikely to be closed down in the close future or their supporting regulations reversed. There was consensus among interviewees that ATU and PROMOVILIDAD represent a positive step towards sustainable urban transport. Both of them withstood multiple leadership changes within their still short lifespans, and, in spite of different criticisms expressed about their size, technical capacity or political profile (instead of technical as initially considered), the interviewees did not express a concern that either of these organisations would be eliminated, or their legal powers withdrawn.

The National Urban Transport Policy and the associated programmes were adopted and funding to support their execution has been secured for the next few years. The NSP supported the formulation and adoption of the policy and the associated investment plans under the MTC’s multi-year investment plan, consolidating these new tools to guide urban transport improvements across Peru. The ELE also established that the NSP itself helped secure multiple funding sources to continue the effort: Germany’s DKTI is providing EUR 60 million through KfW to support future urban transport work in Peru; KfW is also managing a EUR 20 million grant directed at NMT in Lima; the World Bank is supporting ATU in designing the new integrated transport system for Lima; the IDB is providing funding to advance the formulation of an Urban Mobility Plan for Lima to 2040, and new PBLs from the German government via KfW are being signed using the NAMA’s Policy Matrix as a basis for the disbursements. Together, these highlight the existence of a pipeline of investments and actions that will continue the implementation of the TRANSPerú NAMA’s agenda in time.

The formulation and implementation of a (previously inexistent) urban transport agenda has underpinned the creation and consolidation of technical capabilities within the Peruvian government and in local transport consulting companies, and will likely be further strengthened as the implementation of the urban transport pipeline progresses. Nonetheless, increasing the capacity of local governments will require additional work. ELE interviews confirmed an increased ability of the national government and Lima authorities to set and manage the urban transport agenda attributable to the NSP activities. The same applies to national transport consultants and other NGO organisations, such as bicycle collectives, that have improved their technical and policy-making capacity and, as the sustainable urban transport agenda has progressed, they have become more

engaged in it. At the same time, there is still work to be done in building the capacity of small- and medium-size municipal authorities, which have not been sufficiently targeted by the NSP.

The NSP was also successful in consolidating new skills and knowledge in the institutions trained, despite the high staff turnover experienced. However, adequate educational programmes in sustainable urban transport development are still missing in Peru and this can represent a risk for the NAMA's sustainability. ELE evidence showed that the knowledge and capacities built by the NSP's training and technical assistance have been rooted in MTC and the other public beneficiaries. Yet, the lack of relevant higher education programmes risks to slow down the pace of the sustainable urban transport transformation in the long-term, as the increasing demand for skilled professionals in this area could not be met.

In conclusion, there seems to be a generally good outlook for the sustainability of the urban transport reforms and framework improvements achieved by the NSP, despite some hurdles that could affect the long term sustainability of the actions of this NSP persist.

4 Conclusions

Now that the evidence collected and analysed by the ELE has been explored, this section goes back to the NSP Theory of Change to test to what extent the original causal pathways and assumptions behind them have held.

Figure 5. Overview of NSP Causal Pathways Assessment at End-line

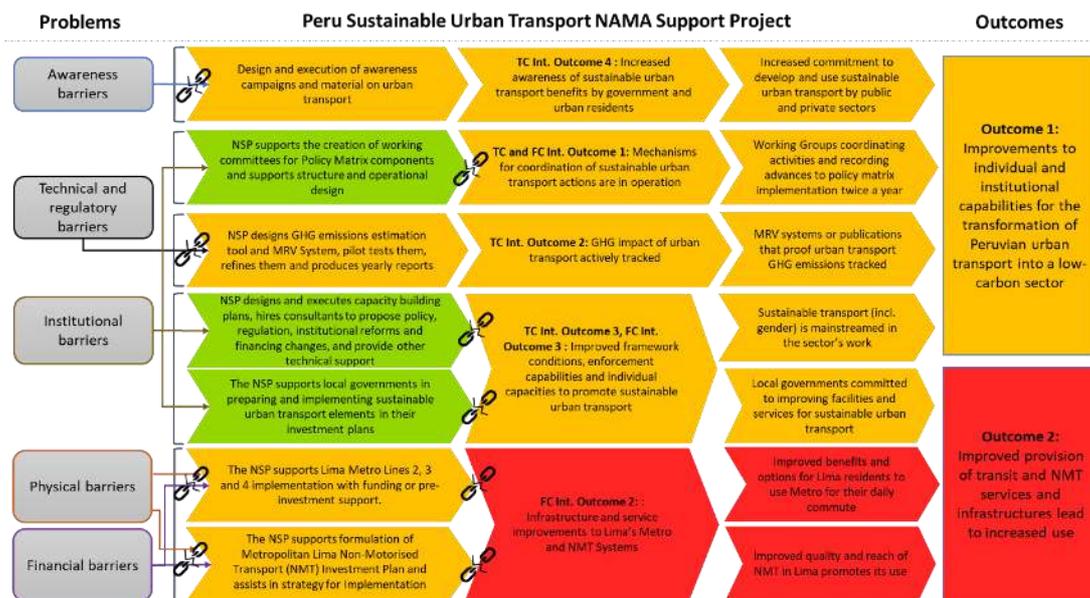


Figure 5 presents an overview of the progress of the NSP along its ToC causal pathways towards its intended outcomes. The RAG rating uses the same scale as the previous section (i.e., Good / Very Good = Green; Problems = Amber; Serious deficiencies = Red; Not enough info to rate = Grey) and the colours of the Outcomes' shapes are the same colours used in Section 3.2 to rate the NSP's achievements for each Outcome.

As no mid-term ELE was carried out for the TRANSPerú NSP, this end-line ELE had no prior causal pathway maps, progress assessments or recommendations to use as a basis for the analysis. The ELE considers important highlighting the challenge of producing an appropriate causal pathway that reflected the NSP's condition of, on one hand, not being directly responsible for the execution of the sector's transformation actions as proposed in the NAMA Policy Matrix, but on the other, being an integral part of their achievement through capacity-building, monitoring support and providing financial incentives. This work led to 5 causal pathways sustaining the NSP's ToC (please refer to section 1.1) being identified. **What transpires from Figure 5 is that multiple causal assumptions underpinning the ToC have not held.** This created some issues to the NSP in achieving the enhancements in institutional and individual capabilities sought (Outcome 1), which became critical issues in achieving the aimed improvements in transit and NMT services and infrastructures (Outcome 2).

Process tracing was applied as an additional test to check the validity of the NSP ToC and assess the strength of the evidence collected by the ELE. The results of the process tracing tests confirmed the findings presented in the body of the report (see Annex E).

Causal pathway 1 is related to addressing awareness barriers about sustainable urban transport and its benefits. The ELE found no evidence of awareness campaigns directed at transit users or NMT users. Therefore, the causal pathway has been broken from its inception. In light of the delays and difficulties to formally establish the NAMA Steering Committee and Peru's recent political turbulence, the NSP assumed the leadership of the public sector reform and strengthening effort, but did not have the resources, capabilities or mandate to engage the key urban transport private sector stakeholders. Consequently, while the commitment of the public sector to urban transport sustainability has been established, the same cannot be said about the private sector.

Causal pathway 2 focuses on the creation and operation of coordination mechanisms. The ELE Team found strong evidence that **the NSP had provided support to the creation and consolidation of coordination mechanisms, particularly in the absence of the NAMA Steering Committee.** However, the legal limitations that exist to create and maintain long-term multisectoral working groups in Peru have had a detrimental effect on the government's (and NSP's) ability to monitor the advances against the Policy Matrix.

Causal pathway 3 covers the creation and consolidation of the GHG emissions estimations and the linked MRV system. The NSP did deliver GHG emissions estimations for urban transport in Lima – Callao and an MRV system, both of which have become crucial inputs to Peru's NDC commitments. However, as previously reported, they may face limitations due to: (i) the lack of regular, recent or reliable urban transport operations and mobility patterns data on which to base and verify the NSP's GHG estimations, and (ii) the fact that the verification mechanisms of GHG estimations have not been adopted by the Peruvian government. The NSP's estimation was a desk-based exercise with limited or no real-world validation, that may compromise its utility for policy-making or monitoring purposes.

Causal pathway 4 focuses on the capacity building effort provided to the national and local governments to formulate and execute urban transport policies (Outcome 1) and service and infrastructure improvements (Outcome 2). The NSP did deliver training and technical assistance to the national and local governments in Peru. However, the NSP failed to deliver the complete set of reforms and institutional framework changes that had been expected. This was mostly due to the absence of the NAMA Steering Committee to guide the effort and support tackling the political and administrative barriers, which have caused delays in the sector's transformation. The NSP was able to raise awareness of gender equality issues within urban transport, but it will take time to see them incorporated across urban transport policies, plans and actions.

Causal pathway 5 relates to achieving improvements in existing transit and NMT infrastructures and services within the Lima – Callao Metropolitan Area, which were expected to incentivise the use of sustainable urban transport alternatives and meet the consequent increase in demand. Although the Financial Component disbursed all its funds and provided some support to securing additional funds for the Lima Metro and other interventions in Lima and other cities, the ELE found no evidence of the NSP supporting the preparation of those local investment plans – except for the inclusion of urban transport within MTC's Multiyear Investment Programme. For this causal pathway, the crucial problem was the disbursement of the Financial Component under conditions different to those in the NAMA Policy Matrix, which suggests that those funds failed to serve as an incentive, as envisioned.

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:

- 1. It is important to review the future role, if any, of the TRANSPerú NAMA Steering Committee, given the roles and responsibilities about the NAMA that were assigned to ATU and PROMOVILIDAD.** The absence of the NAMA Steering Committee created a coordination, execution and monitoring void that has been substantially filled by ATU and PROMOVILIDAD. The NAMA's governance setting should be analysed and revised to maximise synergies and prevent clashes.
- 2. Transforming complex systems is unlikely to happen without the engagement and commitment of all (or most) key stakeholder groups.** In the case of the TRANSPerú NSP, public sector reform or capacity building is unlikely to deliver on its own the sector transformation and the GHG emissions reductions. Transit operators and urban transport users are crucial to achieve that transformation.
- 3. Multi-stakeholder coordination bodies with strong political capital are crucial to driving sector-wide transformational change.** In the case of the TRANSPerú NAMA and NSP, the legal constraints that prevented the Government of Peru to formally establish the NAMA Steering Committee, created a leadership, coordination and monitoring void that the NSP filled in heroic fashion, despite the inherent limitations it had from being conceived as a support organisation
- 4. Robust, reliable and easily updatable GHG emissions models are crucial to properly assess and monitor the effectiveness of NAMA projects.** Urban transport data in Peru are quite scarce and often out-of-date, forcing GHG estimations and MRV systems to work with old, average and/or foreign data, which can lead to interventions or policies based on flawed evidence or unreliable models. More attention should be paid to the availability of input data and to work carried out to validate the accuracy and reliability of those models.
- 5. Smaller, less politically visible cities could make better pilot cases as they are cheaper to intervene in and may deliver results and lessons faster, which could be more relevant to other similar cities as well.** The NSP focused most of the NSP work in Lima, the largest city and political arena in Peru, whilst other urban transport projects in intermediate cities that could have provided valuable lessons to smaller cities through their interest and commitment to improving their transit systems (e.g. Arequipa, Trujillo) received only minor attention and support.
- 6. Pilots or demonstrations can be instrumental in helping stakeholders to learn about the risks, costs, and challenges of new urban transport policies or actions.** The transformation towards sustainable urban transport systems will likely face significant resistance from a population that has traditionally wanted more and better roads for their cars, and the “unpopular” actions towards the transformation can require significant capital investments and take a long time to implement. These three elements combined make for projects that most mayors would be unlikely to support. Pilot projects can help develop public and political support for sustainable urban transport transformation efforts, and should be encouraged when possible.

-
- 7. Changes to project goals or indicators should be agreed with the NAMA Facility and proper justification should be provided and filed with both the request and the decision.** The ELE Team found that one common outcome indicator for the NSP components – Outcome Indicator 1: *“at least 75% of the 77 outputs according to the Policy Matrix are achieved”* – was not reported upon since 2019. This indicator formally established a direct link between the Technical Component, the Financial Component and the Policy Matrix. To the knowledge of the ELE team, no formal document between the NSP and the NAMA Facility agreeing not to report on the indicator exists, nor was there any formal request or approval between KfW and the NAMA Facility to revise down the NAMA Policy Matrix outputs in order to approve the disbursement of NSP funds. According to the NSP Proposal, the presence of specific Policy Matrix outputs were supposed to have served as incentives for the Government of Peru to push through its ambitious reform agenda. The ELE team expresses that it is not uncommon or wrong to revise down targets or indicators during the implementation of a project, as amendments can be justified by changing circumstances. Yet, records of the rationale and the decisions underpinning such changes must be always kept for allowing accountability and learning.
 - 8. The transformation of the public transport sector into a low-carbon one depends upon finding the right balance across institutional, environmental, social, financial, and economic dimensions, particularly so if transit is expected to have adequate coverage, be environmentally-friendly and remain affordable at the same time.** Projects need to strike the right balance across the dimensions and the compromise between the multiple stakeholders to deliver sustainability benefits. Multiple interviewees mentioned that improved transit services with low environmental impacts (included GHG emissions) tend to be incompatible with the traditional owner-operator transit provision arrangements prevalent in Peru, with the current schemes making it difficult to ensure adequate service frequency and quality and also to bear the higher capital cost and specialised maintenance needs of the newer, cleaner vehicle. Public sector subsidies may be required to make quality and sustainable transit operations financially viable. Successfully transforming Peru’s urban transport sector, particularly transit services, into a low-carbon path will require much negotiation, many compromises and a lot of effort.
 - 9. If Technical and Financial Components are to work together to incentivise compliance and realise synergies, the NSP should either define a formal coordination structure in the proposal or adopt some means of incentivising the interaction between the two.** The NSP components were supposed to work complementarily in this project, but they did not. The ELE team found no clear coordination structure between the components, nor identified any type of incentive to coordination. That synergy could probably work with more formal structures and incentives.

5.2 Recommendations

5.2.1 Recommendations to the political implementing partners and the NSP Team for the continuation of the TRANSPerú NAMA

As the NSP comes to an end, there are some specific recommendations for the political implementing partners of the TRANSPerú NAMA that arise from this evaluation:

- 1. Review and consider the need to create and maintain a NAMA Steering Committee (and multiple working groups) now that ATU and PROMOVILIDAD were created and are**

operating. ATU and PROMOVILIDAD are now operating, and they are legally charged with managing, coordinating and monitoring many of the actions to achieve the NAMA Policy Matrix's outputs and outcomes. Therefore, the need for a NAMA Steering Committee should be assessed, and a new institutional framework that involves ATU and PROMOVILIDAD should be considered.

5.2.2 Recommendations to the NAMA Facility for the review, approval, and management of future interventions

The evaluators read the NAMA Facility's General Information Document for the 7th Call for NSPs and understand that projects already undergo thorough assessments at both the project outline phase and detailed preparation phase (DPP). However, based on the lessons identified by this ELE, the ELE team identified some recommendations to improve the general NAMA Facility processes to review, approve, and manage NSPs:

- 1. Develop a repository of ELE recommendations applicable to future NSPs and share them with the prospective applicants.** As the number of completed NSP ELEs grows, so does the number of lessons and recommendations identified by the evaluations. Some of these recommendations are applicable to future NSPs. It is essential that prospective NSP applicants are aware of what was learnt by and recommended to previous NSPs, particularly those in their own sector. Therefore, the NAMA Facility could collate the relevant lessons and recommendations from the ELEs, repackage them into a communication product and share them with future NSP applicants, so that new proposals incorporate the learning from the past. Section 5.2.3 includes the recommendations from this ELE that apply to future NSP applicants.
- 2. Integrate the regular validation of the NSP's institutional framework into the NSP M&E system.** NSPs' institutional setup is assessed during the project outline phase and DPP. However, the institutional set-up must be monitored and controlled regularly throughout the project. An institutional framework validation method, for example similar to the one used during the DPP, could be integrated into the NSPs' Annual Reports, so that the set-up can be promptly adapted if the need arises.
- 3. Consider expanding the DPP feasibility criteria to include the availability and reliability of the data to be used by the NSP.** The NAMA Facility's most recent call for projects has increased the requirements for the NSPs' institutional set-up, plausibility of technologies and business models, and comprehensiveness of financial mechanisms. However, no particular requirement is made about the availability or reliability of existing statistics, time series or models to support their work. In this sense, the ELE recommends that an assessment of the availability and reliability of the data to be used by the NSP (particularly those for the MRV) is included within the DPP feasibility criteria. In this way, timely provisions for improving the data or alternative strategies (e.g. the use of alternative data, the explicitation of the data limitations) can be incorporated in the NSP proposals.
- 4. Ensure that the protocols to change an NSP's scope, targets or indicators are appropriately applied.** The NAMA Facility has standard procedures in place to discuss, approve and document changes to NSPs' scope, targets or logframe indicators. However, for the TRANSPerú NSP, it appears that some of the changes related to the use of the original Policy

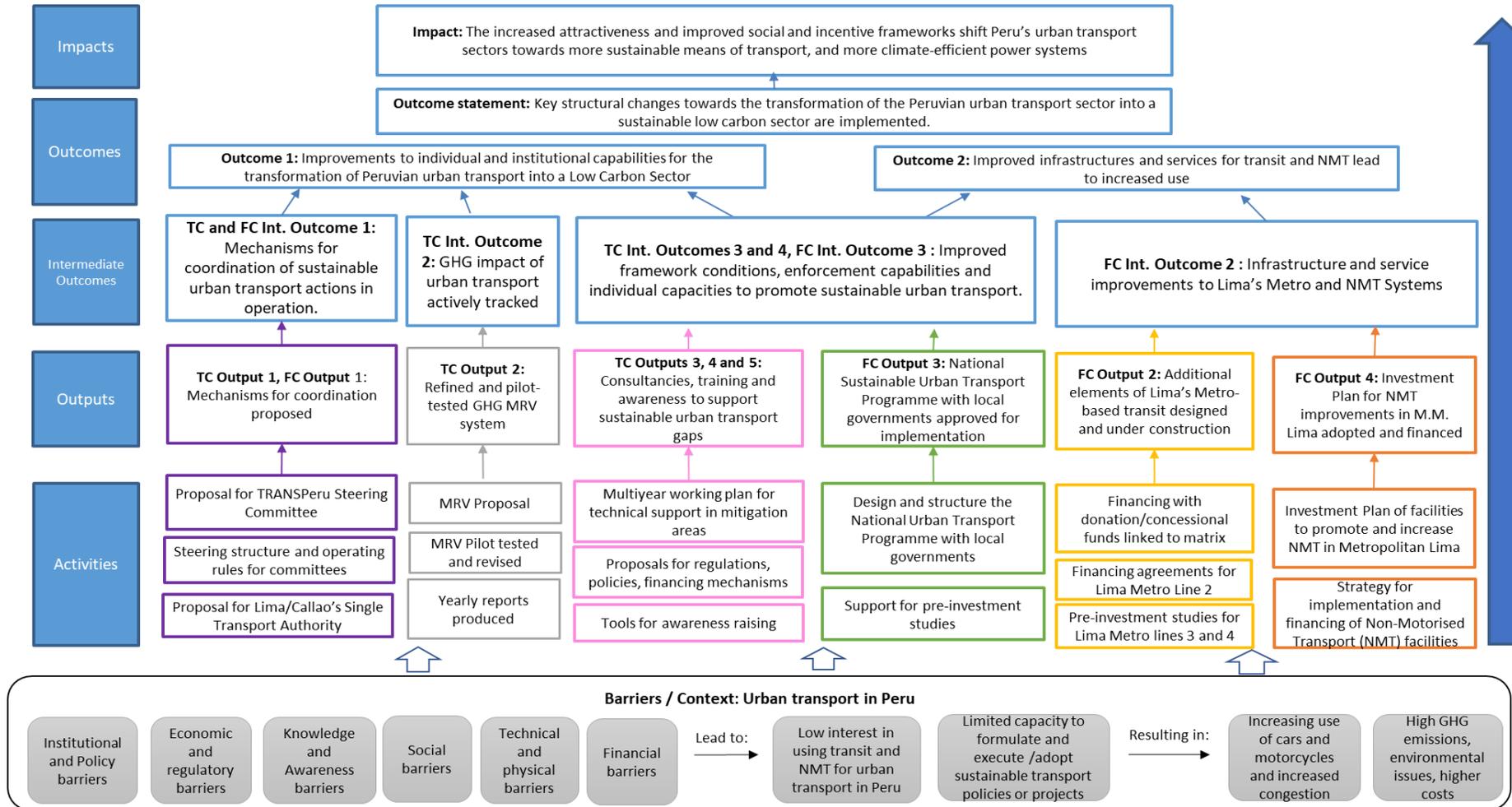
Matrix' outputs for the disbursement of the Financial Component's funds have not been recorded.

5.2.3 Recommendations to future NSP applicants

These recommendations are for future NSP applicants with a particular focus on NSPs in the transport sector:

1. **Any transport and other reform initiatives should engage early on with private sector actors and citizens whose behaviour, decisions and investments it seeks to influence.** A significant part of the transformation effort of a transport system lies with the service providers and the users. Involving them early on in the initiative can help minimise policy resistance and reduce the need for public sector investment and control as users and service providers self-regulate.
2. **Sustain technical recommendations with advocacy activities.** If NSP activities consider reforming regulation using technical inputs developed by the NSP, follow-up activities to influence the inclusion of the NSP's technical recommendations in the final version of the regulations should be part of the NSP's strategy.
3. **Consider executing pilots in cities of different sizes.** The NSP seems to have been designed to focus on Lima because it was the most complex and high-profile case. They thought that if Lima's transport was improved, changes could be made anywhere. Notwithstanding the value of that line of thinking, the sheer size of Lima makes any solution developed and applied for Lima practically irrelevant for everywhere else in Peru. Considering a broader scope of cities may provide quicker results, impacts, and lessons more readily applicable to other cities.
4. **Include pilots financed with international cooperation funds to reduce political resistance and increase interest and ownership in sustainable urban transport solutions.** Piloting the transformations advocated is vital to show decision-makers, investors, and relevant stakeholder groups, like daily drivers or motorcycle riders, the real challenges and costs of the initiatives, and plan better for them. Securing the funding for such pilots from international sources can overcome critical barriers, particularly relevant to smaller and financially-constrained cities: it can relieve the city's budget and absorb some of the political risks for mayors in investing in initiatives that (i) might fail, and (ii) may ultimately be inaugurated by their successors.
5. **Adopt formal structures or incentives in NSP proposals to ensure the appropriate coordination between Technical and Financial Components.** When appropriately coordinated, the Technical and Financial Components can deliver synergies. However, the NSP should contain a formal coordination structure, incentives to collaboration or both. Without these, synergies are unlikely to be achieved.

Annex A Theory of Change of the Peru Sustainable Urban Transport NSP



Key assumptions underpinning the NSP Theory of Change

ToC element	Underpinning assumptions
Impact	<ul style="list-style-type: none"> When provided with quality sustainable urban transport actions, the heightened awareness users will prefer them over traditional polluting, GHG-emitting and congesting transport options. More climate aware, well incentivised, and better trained and skilled public sector officials and transport service providers will favour investments in infrastructures, vehicles or services of sustainable urban transport
Outcome	<ul style="list-style-type: none"> For Outcome 1, the main assumption is that the provision of training, tools and technical assistance for public sector work, along with regulatory reforms will create a public sector able to lead the transformation of the urban transport sector towards low carbon use. For outcome 2, the main assumption is that if the users are provided with good transit and non-motorized transport infrastructures and services, they will switch to them.
Intermediate outcomes	<ul style="list-style-type: none"> For the joint Technical and Financial Component Intermediate Outcome 1, the main assumption is that the outputs and support provided through the NSP will get those intersectoral coordinating and monitoring the implementation of the Policy Matrix. For the Technical Component Intermediate Outcome 2, the assumption is that by assisting the government with the creation of GHG emissions estimation and MRV tools, the government will adopt them, use them in the right way and replicate them. For Intermediate Outcomes 3, 4 and 5 of the Technical Component, together with the Financial Component Intermediate Outcome 3, the main assumption is that the NSP's outputs like technical assistance (studies, support staff), training programmes and proposed regulatory reforms can improve the capabilities of the public sector, and, specifically from the Financial Component intermediate outcome's perspective, that a PBL financial incentive will encourage the required reforms being passed or the decisions being taken. The assumption supporting the Financial Component Intermediate Outcome 2 is that the PBL financial incentive would promote action and commitment from the public sector to improve the transit and NMT infrastructures and service.
Outputs	<ul style="list-style-type: none"> There are adequate technical knowledge and capabilities available to produce the NSP outputs within the available budget and schedules.

Annex B Capturing NSP-induced Transformational Change

Introduction

This is a brief guidance developed by AMBERO/OPM outlining a framework to consistently evaluate the NAMA Support Projects' (NSPs) progress towards bringing about Transformational Change (TC).

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

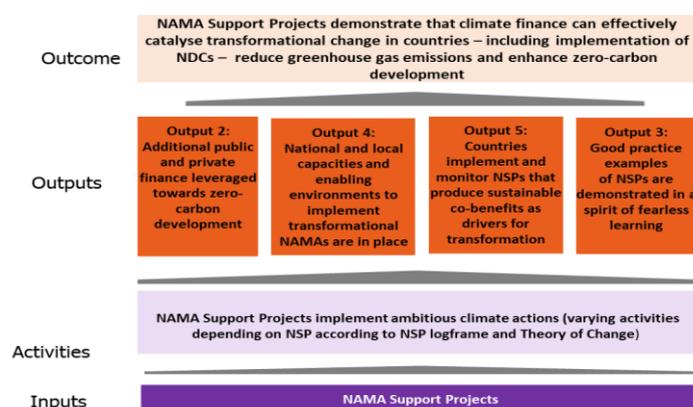
In a way, the key elements of transformational change are already monitored through the NSP Mandatory Core Indicators M1-M5, part of the NAMA Facility M&E Framework¹⁹. At the same time, ELEs already assess transformational change by NSPs through ELE Questions. However, currently, clearer guidance to identifying the signals or evidence of NSP-induced transformational change is needed.

The purpose of this brief document is to clarify whether and how transformational change is expected in NSPs, and provide guidance to both NSP and ELE teams on how to characterise the elements and evidence of NSP-induced transformational change.

Breaking down NSP-induced transformational change

The NAMA Facility defines TC as *"Catalytic change in systems and behaviours resulting from disruptive climate actions that enable actors to shift to carbon-neutral pathways"*²⁰. TC lays at the centre of the NAMA Facility's ToC as shown in the extract in Figure 1.

Figure 1. Relevant elements of the original TOC for the ELEs

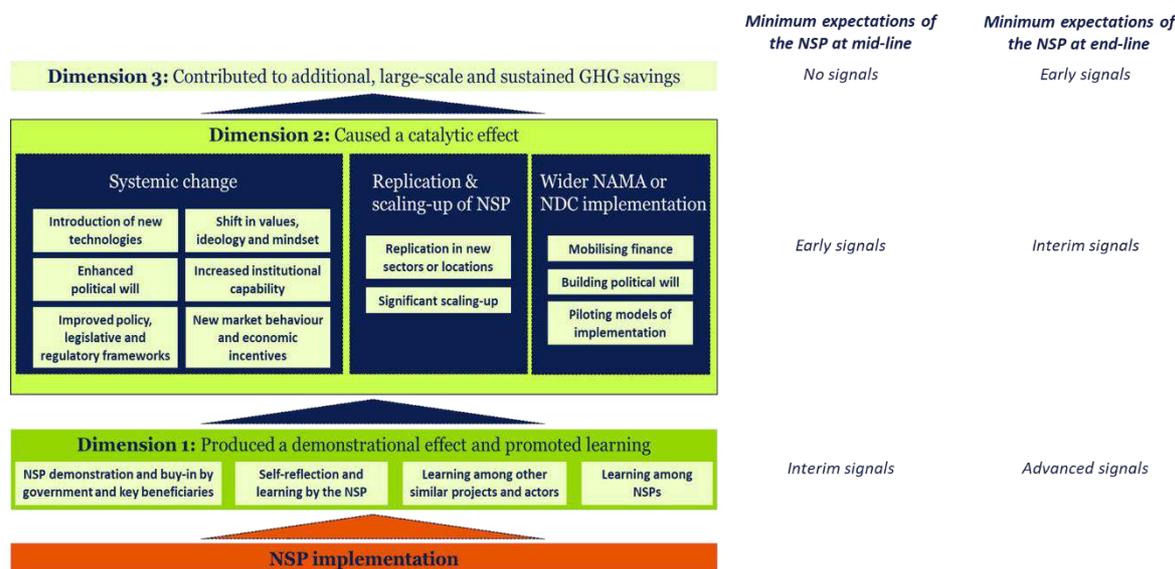


¹⁹ <https://www.nama-facility.org/publications/monitoring-and-evaluation-framework/>

²⁰ <https://www.nama-facility.org/concept-and-approach/transformational-change>

The NAMA Facility ToC explains how TC is expected to be achieved through its outputs and outcome. The ToC is broad, and there are different ways in which TC can be achieved through the NSPs. These dimensions simplify the different possible pathways for TC outlined in the ToC.

Figure 2. Dimensions of NSP-induced transformational change



There are three dimensions that interact and reinforce each other to produce NSP-induced TC (Figure 2):

Dimension 1: Produced a demonstrational effect and promoted learning. The most direct way in which an NSP can contribute to transformational change is to produce a demonstrational effect and learning process which could imply that: a) the NSP’s innovative approach has been proven valid and bought into by government and other key beneficiaries; b) self-reflection and learning by the NSP in a spirit of ‘fearless learning’ have been observed; c) effective sharing of lessons and experience with and by other similar projects and actors (including other NSPs) has occurred. By mid-line, NSPs are expected to show interim signals²¹ of achieving this demonstrational effect and learning process, which should have become clear evidence (advanced signals) by the end-line. This dimension relates to output 3 in the NAMA Facility ToC and the [NAMA Facility Learning Strategy](#). The demonstrational effect and learning generated by the NSP are enablers of achieving a catalytic effect (Dimension 2).

Dimension 2: Causing catalytic effect. In order to achieve the additional, large-scale and sustained GHG emission reductions (Dimension 3), the NSP 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:

- **Kick-starting wider NAMA or NDC implementation**, by mobilising finance, building political will, and/or piloting models of implementation;
- **Replication of the NSP’s demonstrated approach** in other sectors or locations, and/or significant scaling-up of the NSP; and/or

²¹ See Table 2 below for the definition of the levels of signals or evidence.

- **‘Systemic’ change enabled by the NSP**, which could be supported by the one or more of the following: a) introduction of new technologies; b) increased institutional capability; c) improved policy, legislative and regulatory frameworks; d) enhanced political will; e) shift in values, ideology and mindset; f) new market behaviour and economic incentives.

By mid-line, NSPs are expected to have produced some early signals of one or more of these changes, which by the end of the project should have been strengthened into interim signals or evidence that the catalytic effects are likely to be completed in the near future. The catalytic effect relates to outputs 2, 4 and 5 in the NAMA Facility ToC, and Mandatory Core Indicator M3 (catalytic impact self-assessment) and M4-M5 (public/private finance mobilised).

Dimension 3: Contribution to additional greenhouse gas (GHG) savings. This is linked to the outcome in the NAMA Facility ToC and Mandatory Core Indicator M1 – Reduced GHG emissions. It implies that the NSP has resulted in *additional, large-scale and sustained* GHG savings²². Within the lifetime of the project, NSPs are not expected to have achieved this. Yet, by the end of the project, there should be signs that this is likely in the future (*early signals*).

Measuring NSP-induced transformational change

The NAMA Facility has a specific M&E framework that allows to track the progress of the NSPs towards the achievement of the NAMA Facility’s goals, including transformational change. The NAMA Facility Mandatory Core Indicators and the ELEs are both central parts of this M&E framework and they can be used to assess the NSPs’ advancement towards transformational change.

As shown, the TC dimensions come directly from the NAMA Facility ToC. Since the NSPs are expected to be aligned to the overall NAMA Facility ToC, then it should be possible to map the dimensions of transformational change in the NSP ToCs. All NSPs are required to monitor their progress using a series of Mandatory Core Indicators and NSP-specific indicators. The NAMA Facility Mandatory Core Indicators partially capture the elements of the TC framework in Figure 2 (see Table 1).

Table 1. How the NAMA Facility Mandatory Core Indicators capture transformational change

TC dimension	Core Indicators
1. Produced a demonstrational effect and promoted learning	Not captured but left to the NSP-specific indicators.
2. Caused a catalytic effect	<p>M2: Number of people directly benefiting from NSP – To a certain extent captures NSP scaling up</p> <p>M3: Degree to which the supported activities are likely to catalyse impacts beyond the NAMA Support Projects (potential for scaling-up, replication)</p>

²² Additional = the GHG savings achieved are in addition to those achieved by the direct implementation of the NSP. 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.

	<p>and transformation) – The TC framework presented can be used to break down / clarify the TC elements and guide the self-assessment.</p> <p>M4-M5: [additional] public/private finance mobilised – These indicators capture the NSP’s scale-up potential and the catalysation of wider NAMA and NDC implementation.</p>
<p>3. Contributed to additional, large-scale and sustained GHG savings</p>	<p>M1: Reduced GHG emissions - NSP M&E Plan distinguish between direct and indirect GHG savings and has long temporal scale</p>

Concerning the ELEs, Table 2 provides some suggestions of potential questions that could be integrated into ELE methodologies to capture the specific elements of the TC framework in Figure 2.

Table 2. How the ELEQs can capture transformational change

Transformational change dimension	Examples of relevant ELE sub-questions
<p>1. Produced a demonstrational effect and promoted learning</p>	<ul style="list-style-type: none"> • How successfully did the NSP produce a demonstrational effect of best practices for systemic low-carbon transformation? To what extent have the government and other key NSP beneficiaries bought into these practices? • What is the evidence that the NSP has learnt from its successes and failures throughout its implementation? • How was learning from this NSP shared with other NSPs, and did they make any changes to their approach as a result?
<p>2. Caused a catalytic effect</p>	<ul style="list-style-type: none"> • Systemic change: How did the NSP result in systemic change [i.e. were national and local capacities and enabling environments (e.g. new technologies, policies, regulations, incentives, behaviours) to implement transformational NAMAs strengthened]? • Replication/Scaling-up: a) How much additional public and/or private finance has been leveraged by the NSP towards zero-carbon development? b) What is the evidence that the NSP approach will be replicated in new sectors and/or locations? • Wider NAMA or NDC contribution: How has the NSP contributed to the implementation of the NDC or wider mitigation actions in the same sector?
<p>3. Contributed to additional GHG savings</p>	<ul style="list-style-type: none"> • Are there signals that the NSP will contribute to additional, large-scale, sustained GHG savings (beyond direct savings of the NSP)? What were the distinct roles of the financial and technical components in contributing to these savings? • What is the likelihood that the additional GHG savings will be sustained in the medium to long term (i.e. 10–15 years and beyond), meaning there is no risk of backsliding or reversing?

In the section dedicated to the OECD DAC criterion “*Impact*” of ELE Reports, sub-headings referring to the three TC dimensions are used to present the evidence observed to that point in time. These sub-sections present the findings related to the relevant questions in Table 2 and describe the NSP’s progress along the TC dimension according to the signal levels defined in Table 3.

Table 3. 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 NSP but 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.

Annex C Evaluation and Learning Exercise Matrix

This evaluation and learning exercises matrix is based on the Theoretical Framework provided (version October 2020). 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 **Perú Sustainable Urban Transport NAMA Support 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 NSP address an identified need (by national and local governments, urban transport users, transport providers)?	<ul style="list-style-type: none"> The NSP design responds to the beneficiaries' needs and strategic priorities at the time of adoption; and continues to respond to priorities given the evolving challenges and priorities in the Peru Urban Transport Context, even after COVID – 19 set-in and disruptions. NSP addressed the main government, transport provider and/or user barriers and needs to migrate towards sustainable transport initiatives. 	<ul style="list-style-type: none"> The Technical Component of the NSP will address existing Government and transit provider capacity or knowledge gaps. The Financial Component will assist in pushing through key regulatory and institutional reforms and in mobilising public and private funding into transit and Non-Motorised Transport (NMT). Proposed actions are relevant to remove the multiple perceived barriers for increased use of transit and NMT in Peru. 	<ul style="list-style-type: none"> Direct beneficiaries (National or local governments, urban transport operators, transit or NMT users or user groups) Former members of NSP beneficiary institutions (people that have worked in NSP Delivery but are no longer with it) NSP Team. Technical Support Unit (TSU) Team. Independent verifiers (transit or NMT users or user groups, non-NSP consultants working on transport sector, academics) 	<ul style="list-style-type: none"> In-depth interviews Semi-structured key informant interviews (KIIs) Context analysis Document review (Project concepts (logical framework matrix) and progress reports) National plans, strategies and other policy instruments such as norms, standards, etc.
1.1	How well does the NSP align with government and agency priorities in regard to GHG emissions reduction from the urban transport sector?	<ul style="list-style-type: none"> The project is in line with Government targets on environmental emissions (incl. NDC, sectorial plans, etc.). The NSP is linked to formal National MRV schemes. 	<ul style="list-style-type: none"> The NSP will support Peru's overall climate strategy and the government will acknowledge it. 	<ul style="list-style-type: none"> Direct beneficiaries. Former members of NSP beneficiary institutions. NSP Team. Independent verifiers. 	<ul style="list-style-type: none"> In-depth interviews Semi-structured key informant interviews (KIIs) National plans and strategies on climate change and energy Data from the NSP monitoring system

ELEQ No.	Evaluation Question	Evaluation criteria	Original hypotheses	Who can answer this question	Source of information Data gaps
1.2 (Proposed by ELE team)	Did changes in the NSP-operating context influence the relevance of the project?	<ul style="list-style-type: none"> ▪ The project’s goals and specific objectives and needs are still valid even after COVID-19’s impact upon transit ridership due to virus transmission concerns. 	<ul style="list-style-type: none"> ▪ The NSP efforts are in line with long-term national priorities that are not affected by short-term context changes (e.g. local and general elections, personnel changes, COVID-19). 	<ul style="list-style-type: none"> ▪ Direct beneficiaries. ▪ Former members of NSP beneficiary institutions. ▪ NSP Team ▪ TSU Team. ▪ Independent verifiers. 	<ul style="list-style-type: none"> ▪ In-depth interviews ▪ Semi-structured key informant interviews (KIIs) ▪ Progress reports ▪ Semi-structured KIIs ▪ Document review
			2 EFFECTIVENESS		
2	To what extent has the implementation of the NSP achieved intended outcomes in the short, medium, and long term?	<ul style="list-style-type: none"> ▪ Evidence found about: <ul style="list-style-type: none"> ○ Working institutional arrangement and monitoring schemes for Sustainable urban transport policies and operations. ○ Increased ridership of transit or increased use of NMT, including COVID-19 Impact considerations. ○ Improved attractiveness of transit and NMT including COVID-19 Impact considerations. ○ Increased incorporation of climate, sustainability, and gender equity and empowerment elements into transport policies, services and infrastructures. ○ Increased mobilisation of public and private funds into transit (metro) and NMT infrastructures or facilities 	<ul style="list-style-type: none"> ▪ Technical Component activities delivered increased capacity of public and private urban transport sector stakeholders to formulate, execute and finance transit and NMT Projects. ▪ Financial Component’s PBL scheme was effective in encouraging the key institutional reforms (ATU and TRANSPerú Steering Committee) and the agreed monitoring of the policy matrix. ▪ Financial Component efforts and have mobilised public and private funding into transit or NMT infrastructure or service improvements ▪ Technical and Financial Components actions have contributed to a more equitable gender perspective into transit and 	<ul style="list-style-type: none"> ▪ Direct beneficiaries ▪ Former members of NSP beneficiary institutions ▪ NSP Team ▪ TSU Team ▪ Independent verifiers 	<ul style="list-style-type: none"> ▪ In-depth interviews ▪ Semi-structured key informant interviews (KIIs) ▪ NSP proposal ▪ Progress reports ▪ Data from NSP monitoring system / logframe

ELEQ No.	Evaluation Question	Evaluation criteria	Original hypotheses	Who can answer this question	Source of information Data gaps
			NMT policy and project design and implementation.		
2.1 (Proposed by ELE team)	Did changes in the NSP-operating context impact (positively and/or negatively) the effectiveness of the project? If so, to what extent (greatly, partially, negligibly)?	<ul style="list-style-type: none"> ▪ The level of NSP contribution to the achievement of the results compared to exogenous factors. ▪ Several assumptions and causal pathways outlined in the TOC remain valid, after adaptations and refinements. ▪ Despite the relatively small size of the NSP and the relatively “crowded” sector in Peru, the NSP gained value from or added value to other donor-funded initiatives on sustainable mobility in Peru. If so, understand: were there some particular types of initiatives that had larger synergy potential? Which types of projects were these? 	<ul style="list-style-type: none"> ▪ The NSP is the main cause of the achievement of the intended and unintended outcomes. ▪ The execution of the project will provide lessons and capabilities to other donor-funded initiatives to strengthen interventions in the transport sector in Peru. ▪ The Peru Sustainable Urban Transport NAMA NSP has used lessons from other NSPs to improve and strengthen itself. 	<ul style="list-style-type: none"> ▪ Direct beneficiaries ▪ Former members of NSP beneficiary institutions ▪ NSP Team ▪ TSU Team. ▪ Independent verifiers 	<ul style="list-style-type: none"> ▪ Progress reports ▪ In-depth interviews ▪ Semi-structured KIIs ▪ Literature review
			3 EFFICIENCY		
3	To what extent was the delivery of outputs timely and to expected quality standards?	<ul style="list-style-type: none"> ▪ Timeliness of the delivery of outputs and outcomes (incl. budget spending) ▪ If there are delays in the implementation, what have caused them (endogenous or exogenous factors) and how seriously have they impacted the NSP implementation? ▪ The effectiveness of the measures adopted to reduce the delays ▪ The level of satisfaction of the NSP direct beneficiaries 	<ul style="list-style-type: none"> ▪ Technical Component activities are implemented on time and budget. ▪ The institutional, regulatory, or operative outputs can be linked to NSP outputs (transit ridership and NMT increases, improved transport and sustainability actions, increased investment in transit and NMT with private support). 	<ul style="list-style-type: none"> ▪ Direct beneficiaries ▪ Former members of NSP beneficiary institutions NSP Team ▪ TSU Team. 	<ul style="list-style-type: none"> ▪ NSP proposal ▪ Progress reports ▪ In-depth interviews ▪ Data from the NSP monitoring system ▪ Semi-structured KIIs

ELEQ No.	Evaluation Question	Evaluation criteria	Original hypotheses	Who can answer this question	Source of information Data gaps
3.1 (Proposed by ELE team)	Structure & steering: Has the NSP been managed, coordinated, and implemented effectively?	<ul style="list-style-type: none"> ▪ The chosen implementation mechanism is conducive to achieving the expected outcomes ▪ The technical and financial components are tailor-made for achieving the planned outputs ▪ Communication and visibility are implemented according to an integrated approach ▪ Financial and Technical Components interact synergistically ▪ Stakeholders are participating and collaborating actively in the intervention 	<ul style="list-style-type: none"> ▪ The NSP has provided the support required by the sectoral stakeholders to make the transformations. ▪ The Proposed NSP structure has been implemented with minor modifications. ▪ Coordination with other projects at the national or local tiers of government has been positive. ▪ The NAMA Steering Committee has an adequate structure and functions and has been crucial to achieving the expected goals. ▪ Technical and Financial Components have acted synergistically – In particular, the Financial Component's PBL scheme has been key to driving the cross-sectoral agreements required and reforms emerging from the Technical Component and other prior international cooperation work (UKTI). 	<ul style="list-style-type: none"> ▪ Direct beneficiaries ▪ Former members of NSP beneficiary institutions ▪ NSP Team ▪ TSU Team. ▪ Independent verifiers 	<ul style="list-style-type: none"> ▪ Progress reports ▪ In-depth interviews ▪ Semi-structured KIIs
4 IMPACT					
4	What evidence is there that the NSP has been contributing to the intended impact in the ToC (incl. transformational change)?	<ul style="list-style-type: none"> ▪ 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 (namely increase in attractiveness and use of transit and NMT alternatives for urban transport 	<ul style="list-style-type: none"> ▪ Direct: Technical and Financial Components' activities are making key contributions towards transit ridership, NMT use, and reductions in climate and environmental impact from urban transport. 	<ul style="list-style-type: none"> ▪ Direct beneficiaries ▪ Former members of NSP beneficiary institutions ▪ NSP Team. ▪ TSU Team. ▪ Independent verifiers 	<ul style="list-style-type: none"> ▪ NSP proposal ▪ Progress reports ▪ In-depth interviews ▪ Data from the NSP monitoring system ▪ Semi-structured KIIs

ELEQ No.	Evaluation Question	Evaluation criteria	Original hypotheses	Who can answer this question	Source of information Data gaps
		<p>in Peru, GHG emissions reduction and co-benefits)</p> <ul style="list-style-type: none"> ▪ The extent of how transformative the NSP is likely to be, based on current evidence. ▪ How successful was the NSP at promoting scale-up or replication from demonstrations or best practices for systemic low-carbon transformation of the urban transport sector in Peru from cars towards mass transit and NMT. 	<ul style="list-style-type: none"> ▪ Indirect: Technical and Financial Components' activities have been catalytic, i.e. provided lessons and inputs (either technical, regulatory, financial or incentive frameworks) that have led to other public and private stakeholders adopting sustainable, climate-smart and gender considering changes transit or NMT decisions or efforts. ▪ Unintended negative effects have been kept to a minimum. 		
5 SUSTAINABILITY					
5	What is the likelihood that the outcomes will be sustained after the end of the NSP funding period?	<ul style="list-style-type: none"> ▪ The extent of the evidence supporting the NSP sustainability (e.g. evidence of self-sustaining institutional structures, and political and financial commitment of key stakeholders). ▪ There is little or no risk of backsliding or reversing 	<ul style="list-style-type: none"> ▪ Technical Component's activities have helped establish strong and capable institutional, regulatory and operational transit and NMT alternatives. ▪ Private sector stakeholders are committed to operating in a more climate-friendly way. ▪ The NSP did promote clear, resilient systemic change through its actions. 	<ul style="list-style-type: none"> ▪ Direct beneficiaries ▪ Former members of NSP beneficiary institutions ▪ NSP Team ▪ TSU Team ▪ Independent verifiers 	<ul style="list-style-type: none"> ▪ NSP proposal ▪ Progress reports ▪ In-depth interviews ▪ Data from the NSP monitoring system ▪ Semi-structured KIIs
6 LEARNING					
6	What key lessons can be learnt to the benefit of the legacy of this NSP, other NSPs and the	<ul style="list-style-type: none"> ▪ The NSP's generation of important lessons for 1) itself; and 2) other projects and/or NSPs. 	<ul style="list-style-type: none"> ▪ Lessons from this NSP were used to improve its execution. ▪ The NSP generated important lessons for other NSPs. 	<ul style="list-style-type: none"> ▪ Direct beneficiaries ▪ Former members of NSP beneficiary institutions ▪ NSP Team ▪ TSU Team 	<ul style="list-style-type: none"> ▪ Progress reports ▪ In-depth interviews ▪ Semi-structured KIIs ▪ Literature review

ELEQ No.	Evaluation Question	Evaluation criteria	Original hypotheses	Who can answer this question	Source of information Data gaps
	NAMA Facility as a whole?				
6.1	Based on the lessons learned so far what are the key elements and assumptions that should be taken into account to formulate large-scale transformational projects in the transport sector? How should the NAMA Facility and others use these lessons and information to design and implement new projects?	<ul style="list-style-type: none"> ▪ The NSP's generation of important lessons for the NAMA Facility as a whole. 	<ul style="list-style-type: none"> ▪ Lessons from the NSP are useful to steer the overall strategy of the NAMA Facility in sustainable transport. 	<ul style="list-style-type: none"> ▪ Direct beneficiaries ▪ Former members of NSP beneficiary institutions ▪ NSP Team ▪ TSU Team 	<ul style="list-style-type: none"> ▪ Progress reports ▪ In-depth interviews ▪ Semi-structured KIIs ▪ Literature review

Annex D Evidence and answers to the ELE matrix

The following table has been part of the ELE analysis effort to link the answers to the ELEQs with the evidence from the ELE sources that underpins them. The strength of the evidence is assessed following the methodology explained in Section 2 and the legend in Table 4. The codes found in the answers' text are the references to the specific sources (interviews, workshops, documents). Each code refers to a specific source and follows this legend: NT = NSP Team; NS = NSP Stakeholder; TP = Third Party; AR19 = Annual Report 2019; SAR20 = Semi-Annual Report 2020.

ELEQ No.	Evaluation Question	Evaluation criteria	Original hypotheses	ELE Evidence
			1 RELEVANCE	
1	To what extent does the NSP address an identified need (by national and local governments, urban transport users, transport providers)?	<ul style="list-style-type: none"> The NSP design responds to the beneficiaries' needs and strategic priorities at the time of adoption; and continues to respond to priorities given the evolving challenges and priorities in the Peru Urban Transport Context, even after COVID – 19 set-in and disruptions. NSP addressed the main government, transport provider and/or user barriers and needs to migrate towards sustainable transport initiatives. 	<ul style="list-style-type: none"> The Technical Component of the NSP will address existing Government and transit provider capacity or knowledge gaps. The Financial Component will assist in pushing through key regulatory and institutional reforms and in mobilising public and private funding into transit and Non-Motorised Transport (NMT). Proposed actions are relevant to remove the multiple perceived barriers for increased use of transit and NMT in Peru. 	<ul style="list-style-type: none"> NSP proposed actions to tackle Peru's urban transit systems' problems that made them operate inefficiently and be unattractive to users, leading to increasing climate and environmental impact (Very Strong Evidence - PR14, NT1, NT2, NT3, NT4, NT5, NT6, NS1, NS2, NT7, NS4, NS7, NS8, NS9, NS10, NS3, NT8, TP1, TP2, TP3, TP7). NSP proposed actions to resolve competence or technical capacities of the public sector to intervene in urban transport, as it had been assigned to local governments in the regulatory framework (Very Strong Evidence - PR14, NT1, NT2, NT3, NT4, NT5, NT6, NS1, NS2, NS4, NS7, NS8, NS9, NS10, NS3, NT8, TP1, TP2, TP3, TP7). NSP proposed actions to resolve multiple institutions having overlapping or conflicting competencies over Lima and Callao's Urban Transport (Very Strong Evidence - PR14, NT3, NT4, NT6, NS1, NS2, NS4, NS7, NS8, NS9, TP2, TP3, TP7). NSP proposed actions to address conflicts between the MTC and Min. of Housing around "mobility" given that regulatory framework conferred competence to each one of them on different elements (Very Strong Evidence - PR14, NT6, NS1, NS2, NS4, NS7, NS9, NT8, TP2, TP3). NSP addressed limitations and shortcomings of municipalities with technical assistance for capacity-building or studies (Strong Evidence - NT1, NT2, NS4, NS5) NSP

ELEQ No.	Evaluation Question	Evaluation criteria	Original hypotheses	ELE Evidence
				<p>identified well the need for fleet renewal and fighting informality (Very Strong Evidence - NT5, NT6, NS6, TP5).</p> <ul style="list-style-type: none"> ▪ Although interventions were proposed in improving services and benefits for transport users, there were some limited actions in awareness for cyclists (Weak Evidence - PBL1, PBL 2), Old vehicle scrapping first steps (Medium Evidence - NS1, PBL1, PBL2) that should lead to improved services. ▪ Within the NSP reform agenda reforms, little attention was given to the limitations and barriers of local municipalities to tackle urban transport challenges (Very Strong Evidence - NT3, TP2, NT8, NS5, NS6). ▪ Local governments that benefited from NSP support were not always actively engaged in technical assistance execution, even though they are the ones in charge of implementation (Weak Evidence - NS5, NS6). ▪ NSP did not engage the private sector represented by the transit operators in the sectoral transformation discussions and reforms, even though the sector's informality is one of the major barriers identified (Very Strong Evidence - NT1, NT3, NT5, NT6, NS1, NS9, NT8, TP7). ▪ NSP did not engage the users in the sectoral transformation discussions and reforms (Very Strong Evidence - NT1, NT3, NT5, NT6, NS1, NS9, NT8, TP7). ▪ NSP failed to provide a clear vision of what it would be to be successful in the implementation of the Technical and Financial Components: the focus was on outputs (Medium Evidence - NT1, NT2, NT3, NT5). ▪ Grant funds associated with the Financial Component were not directed at supporting the compliance or delivery of policy matrix elements (Medium Evidence - NT2, NT3, NT5). ▪ Neither the NAMA nor the NSP did acknowledge the lack of objective, reliable and continuous data to support decision-making (Medium Evidence - NT3, NT8). ▪ Staff turnover and political situation has slowed down and made more difficult the implementation (Very Strong Evidence - NT4, NT5, NS8, TP7, NT8)

ELEQ No.	Evaluation Question	Evaluation criteria	Original hypotheses	ELE Evidence
1.1	How well does the NSP align with government and agency priorities in regard to GHG emissions reduction from the urban transport sector?	<ul style="list-style-type: none"> ▪ The project is in line with Government targets on environmental emissions (incl. NDC, sectorial plans, etc.). ▪ The NSP is linked to formal National MRV schemes. 	<ul style="list-style-type: none"> ▪ The NSP will support Peru's overall climate strategy and the government will acknowledge it. 	<ul style="list-style-type: none"> ▪ NSP's support to the development of the GHG inventories and MRV systems for urban transport has become the basis for National GHG Reports and NDC commitments (Very Strong Evidence - NT4, NS1, AR20). ▪ • The NSP GHG analyses focused mostly on the Lima - Callao area and exclude freight transport data (Very Strong Evidence - NT5, NS5, AR20). ▪ GHG estimation efforts have been mostly desktop-based using old transport operations data, international figures and very broad interventions. It will be important to start making these estimations more tangible through detailed transport operations data or discreet interventions. Without these validation efforts, the reliability of the figures may be compromised (Strong Evidence - NT5, NT7, NS4). ▪ Transport operation companies and owner/operators as the main producers of GHG through their operations were not engaged in these estimations or discussions. NDC commitments are mostly focused on government-managed actions or activities (Strong Evidence - NT6, NT7, NS4). ▪ Based on the accounts and information, most of the effort for reduction has focused on documents and regulations, with little evidence of active transformation management (Single Source - NT7).

1.2 (Proposed by ELE team)	Did changes in the NSP-operating context influence the relevance of the project?	<ul style="list-style-type: none"> ▪ The project’s goals and specific objectives and needs are still valid even after COVID-19’s impact upon transit ridership due to virus transmission concerns. 	<ul style="list-style-type: none"> ▪ The NSP efforts are in line with long-term national priorities that are not affected by short-term context changes (e.g. local and general elections, personnel changes, COVID-19). 	<ul style="list-style-type: none"> ▪ Due to COVID-19 restrictions, the use of NMT increased as cars were restricted from circulating in some areas (Very Strong Evidence - NT1, NT3, TP1, NS10). ▪ Evolving institutional and technical capacity of NSP counterparts led to evolving relationships with them, and also of their needs (Strong Evidence - NS4, NS6, NS10, AR20). ▪ The passing of transit subsidy laws to support transit operators during the pandemic has led to the voluntary installation of fleet control and management equipment in privately owned buses (Medium evidence - NS1, TP3).
2 EFFECTIVENESS				
2	To what extent has the implementation of the NSP achieved intended outcomes in the short, medium, and long term?	<ul style="list-style-type: none"> ▪ Evidence found about: <ul style="list-style-type: none"> ○ Working institutional arrangement and monitoring schemes for Sustainable urban transport policies and operations. ○ Increased ridership of transit or increased use of NMT, including COVID-19 Impact considerations. ○ Improved attractiveness of transit and NMT including COVID-19 Impact considerations. ○ Increased incorporation of climate, sustainability, and gender equity and empowerment elements into transport policies, services and infrastructures. ○ Increased mobilisation of public and private funds into transit (metro) and NMT infrastructures or facilities 	<ul style="list-style-type: none"> ▪ Technical Component’s activities delivered increased capacity of public and private urban transport sector stakeholders to formulate, execute and finance transit and NMT Projects. ▪ Financial Component’s PBL scheme was effective in encouraging the key institutional reforms (ATU and TRANSPerú Steering Committee) and the agreed monitoring of the policy matrix. ▪ Financial Component’s efforts and have mobilised public and private funding into transit or NMT infrastructure or service improvements ▪ Technical and Financial Components’ actions have contributed to a more equitable gender perspective into transit and NMT policy and project design and implementation. 	<ul style="list-style-type: none"> ▪ The Technical Component has required some adjustments as execution has progressed, but in general, outputs have been delivered, along with some of the associated outcomes. (Very Strong Evidence - NT2, NT3, NT5, NS1, TP3) ▪ ATU and PROMOVILIDAD were established setting the stage for more capable management. (Very Strong Evidence - NT1, NT2, NT3, NT4, NT5, NT6, NS1, NS2, NT7, NS4, NS5, NS6, NS7, NS8, NS10, TP2, TP3, AR20) ▪ National Urban Transport Policy was adopted, with an associated investment plan. (Very Strong Evidence - NT1, NT2, NT3, NT4, NT5, NT6, NS1, NS2, NT7, NS4, NS5, NS6, NS7, NS8, NS10, TP2, TP3, AR20). There is a growing pipeline of urban transport projects that should help transform the sector. (Single source - NS2) ▪ A NAMA Steering Working Group was created, with the MTC taking on a leadership role in the NAMA, but the scope is limited to reviewing and updating the policy matrix for the period 2021 – 2025 and adopting some documents and methodologies about the GHG emissions estimation and MRV. (Very Strong Evidence - NT1, NT2, NT3, NT4, NT5, NT6, NS1, NS2, NT7, NS4, NS5, NS6, NS7, NS8, NS10, TP2, TP3, AR20, SAR21) ▪ Additional loans or grants were secured by the national government to support the National Urban Transport Policy. (Very Strong Evidence - NT1, NT2, NT3, NT4, NT5, NT6, NS1, NS2, NT7, NS4, NS5, NS6, NS7, NS8, NS10, TP2, TP3, AR20)

				<ul style="list-style-type: none"> ▪ The GHG inventory and MRV efforts have become the basis for Transport Sector Reports and NDC Commitments (Strong evidence - NT4, NT6, NT7, NT5, AR20) ▪ Transport was attributed public service status, enabling intervention and regulation/management by public sector institutions (Medium Evidence - NT5, TP3) ▪ Technical assistance has supported technical analyses and decision-making by MTC, ATU, PROMOVIDAD and Local Governments (Very Strong Evidence - NT5, TP4, NT5, NS4, NS5, NS6, TP3) ▪ Gender perspectives are being incorporated into the Urban Transport Sector (Weak evidence - NS12, NS1) ▪ Although some key institutional issues have been addressed at the National and Lima levels, other city governments still struggle due to under-resourced linked to the legal framework: Wages are not competitive to attract or retain talent, they have limited budgets for major investment projects and it is difficult to find skilled personnel to face transport's challenges. (Very Strong Evidence - NT6, NS5, TP2) ▪ There are no clear plans on producing better urban transport data to support decision making or management or to validate GHG emissions reductions from the most analytical models that were produced with the NSP. (Medium Evidence - NT6, AR20) ▪ Lack of engagement of transit operators means that there is still a lot of work to be done with them for their transformation in terms of formalization, fleet renewal, scrapping. (Strong Evidence - NT3, NT5, NS6) ▪ There is a concern that the new institutions, particularly ATU, will focus only on policy-making, but will not manage or become involved in implementing solutions. (Weak evidence - N6, NS10) ▪ The NSP Proposal should have been clearer about what would be the "success conditions or criteria" not only indicators. That would have been helpful to guide the efforts. (Medium Evidence - NT1, NT2, NT3, NT5) ▪ Under the Financial Component, changes to the Policy Matrix's programmatic outcomes were made, reducing the
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				<p>targets, without clear justification, and still funding was disbursed (Very Strong Evidence - NT2, AR20, PBL1, PBL 2)</p> <ul style="list-style-type: none"> ▪ Benefits to the final users have not been realized and, as a matter of fact, many stakeholders report that transit conditions have worsened and that NMT is seen too many accidents with injuries to the riders (Very Strong Evidence - NT3, NS4, NS9, NS10, TP1, TP7) ▪ There was little mobilization of private funding, with particularly little being achieved in the pursuit of cleaner energy vehicles (Very Strong Evidence - NS10, NS3, TP3, NT8, AR20) ▪ Political or administrative conditions or risks were underestimated by the project and have delayed or limited institutional or regulatory reforms: One key example is ATU who had to bring together large staff numbers of the personnel in the institutions that merged to create it and has also found detractors or opposer during its creation and during this consolidation phase (Weak evidence NS4, NS8)
<p>2.1 (Proposed by ELE team)</p>	<p>Did changes in the NSP-operating context impact (positively and/or negatively) the effectiveness of the project? If so, to what extent (greatly, partially, negligibly)?</p>	<ul style="list-style-type: none"> ▪ The level of NSP contribution to the achievement of the results compared to exogenous factors. ▪ Several assumptions and causal pathways outlined in the TOC remain valid, after adaptations and refinements. ▪ Despite the relatively small size of the NSP and the relatively “crowded” sector in Peru, the NSP gained value from or added value to other donor-funded initiatives on sustainable mobility in Peru. If so, understand: were there some particular types of initiatives that had larger synergy potential? Which types of projects were these? 	<ul style="list-style-type: none"> ▪ The NSP is the main cause of the achievement of the intended and unintended outcomes. ▪ The execution of the project will provide lessons and capabilities to other donor-funded initiatives to strengthen interventions in the transport sector in Peru. ▪ The Peru Sustainable Urban Transport NAMA NSP has used lessons from other NSPs to improve and strengthen itself. 	<ul style="list-style-type: none"> ▪ The creation of ATU consolidates in just one institution decisions and coordination for integrated urban transport solutions - Partial impact. (Very Strong Evidence - NT1, NT2, NT3, NT4, NT5, NT6, NS1, NS2, NT7, NS4, NS5, NS6, NS7, NS8, NS10, TP2, TP3, AR20) ▪ The creation of PROMOVIDAD along with its funding sources and investment plan will help improve urban transport in small and mid-size cities (great impact). (Weak Evidence - NT1, NT3) ▪ Political instability helped increase or highlight the relevance of international cooperation agencies as drivers of continuity in the work. (Medium evidence - NT1, NT2, NT3, NT4, NT5) ▪ Having had the UNFCCC COP 20 in Lima in 2014, and the NDC pledges of Paris' COP21 helped increase the interest in and support of the Emissions estimations and MRV work and the overall climate performance of the urban transport sector. (Medium Evidence - NT1, NT2, NT3, NT4) ▪ The COVID-19 pandemic created the conditions to push forward legal reforms to declare transit as a public service and also to open up the door for providing subsidies. (Medium Evidence - NT1, NT2, NT3, NT4).

				<ul style="list-style-type: none"> Combined problem of political instability and high staff turnover did make it more difficult to advance the sector transformation agenda. (Very Strong Evidence - NT1, NT2, NT3, NT5, NS6, NS8, NS9, TP2)
			3 EFFICIENCY	
3	To what extent was the delivery of outputs timely and to expected quality standards?	<ul style="list-style-type: none"> Timeliness of the delivery of outputs and outcomes (incl. budget spending) If there are delays in the implementation, what have caused them (endogenous or exogenous factors) and how seriously have they impacted the NSP implementation? The effectiveness of the measures adopted to reduce the delays The level of satisfaction of the NSP direct beneficiaries 	<ul style="list-style-type: none"> Technical Component's activities are implemented on time and budget. The institutional, regulatory, or operative outputs can be linked to NSP outputs (transit ridership and NMT increases, improved transport and sustainability actions, increased investment in transit and NMT with private support). 	<ul style="list-style-type: none"> Although it needed to adapt to changing and politically unstable conditions, the Technical Component was able to provide technical assistance that support the decision-making process, without any delays. (Very Strong Evidence - NT1, NT2, NT3, NT5, NS6, NS8, NS9, TP2, AR20) Financial Component's disbursements could have been made earlier, but were delayed due to delays to insufficient debt envelope for Peru in some years, and also to delays resulting from the processes set to agree and disburse the funds (Very Strong Evidence - NT1, NT2, NT3, NT5, NS8, AR20) 3 out of 4 output indicators of the Financial Component are reported to be behind schedule, as well as 3 out of the 7 of the Technical component. (Very Strong Evidence - NT1, NT2, AR20, PBL1, PBL2) ToRs for technical assistance provided by NSP were not always developed with the beneficiary institution. (Strong Evidence - NT4, NS5, NS6).
3.1 (Proposed by ELE team)	Structure & steering: Has the NSP been managed, coordinated, and implemented effectively?	<ul style="list-style-type: none"> The chosen implementation mechanism is conducive to achieving the expected outcomes The technical and financial components are tailored for achieving the planned outputs Communication and visibility are implemented according to an integrated approach Technical and Financial Components interact synergistically Stakeholders are participating and collaborating actively in the intervention 	<ul style="list-style-type: none"> The NSP has provided the support required by the sectoral stakeholders to make the transformations. The Proposed NSP structure has been implemented with minor modifications. Coordination with other projects at the national or local tiers of government has been positive. The NAMA Steering Committee has an adequate structure and functions and has been crucial to achieving the expected goals. Technical Component and Financial Component have acted synergistically – In particular, the 	<ul style="list-style-type: none"> Multiple Multisectoral Working Groups were created to Coordinate the NAMA and address the specific components of the Policy Matrix, and within their legal 6-month terms they operated with diligence. (Strong Evidence - NT1, NT2, NT3, NT4, NS2, NS4, NT8) The creation of ATU and PROMOVILIDAD resulted from those MWG and are leading the work in their respective policy matrix component. (Strong Evidence - NT1, NT2, NS5, NS10).. The NSP has had a positive coordination impact both through institutional consolidation (ATU and PROMOVILIDAD), but also by helping create guiding elements like the National Urban Transport Policy and some city's Sustainable urban transport plans or NMT plans, which provide a common vision for urban transport improvements. (Very Strong Evidence - NT1, NT5, NS5, AR20)

			Financial Component's PBL scheme has been key to driving the cross-sectoral agreements required and reforms emerging from the Technical Component and other prior international cooperation work (UKTI).	<ul style="list-style-type: none"> The international cooperation agencies and the multilateral financial institutions have been increasing their coordination in recent years. (Very Strong Evidence - NT1, NT2, NT3, NS1, NS2, NS10, TP1, TP7). There was no real coordination between the Technical and Financial Components. Each one followed their plan and agenda. (Very Strong Evidence - NT1, NT2, NT3, NT4, NT6, NS2, NT8, AR20, PBL1, PBL2). The structure and steering of the sector's transformation only included public sector stakeholders. The diversity of stakeholders within the transport sector, in general, will make it difficult to coordinate and manage the activities leading to the sector transformation and to achieving the NDC commitments (Weak Evidence - NS3, NS4)
			4 IMPACT	
4	What evidence is there that the NSP has been contributing to the intended impact in the ToC (incl. transformational change)?	<ul style="list-style-type: none"> 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 (namely increase in attractiveness and use of transit and NMT alternatives for urban transport in Peru, GHG emissions reduction and co-benefits) The extent of how transformative the NSP is likely to be, based on current evidence. How successful was the NSP at promoting scale-up or replication from demonstrations or best practices for systemic low-carbon transformation of the urban transport sector in Peru from cars towards mass transit and NMT. 	<ul style="list-style-type: none"> Direct: Technical and Financial Components' activities are making key contributions towards transit ridership, NMT use, and reductions in climate and environmental impact from urban transport. Indirect: Technical and Financial Components' activities have been catalytic, i.e. provided lessons and inputs (either technical, regulatory, financial or incentive frameworks) that have led to other public and private stakeholders adopting sustainable, climate-smart and gender considering changes transit or NMT decisions or efforts. Unintended negative effects have been kept to a minimum. 	<ul style="list-style-type: none"> The policy (National Urban Transport Plan) and institutional (ATU and PROMOVILIDAD) foundations for transport transformation have been laid out, at least at the Lima Metropolitan Area and the National Levels. However, that needs to be complemented by implementation actions. (Very Strong Evidence - NT1, NT3, NT4, NT6, NS1, NS2, NT7, NS4, NS5, NS8, NS9, NS10, TP2, TP3, NT8, AR20) NSP has raised awareness of pursuing integrated urban transport solutions. (Very Strong Evidence - NT1, NT2, NT5, NS1, NS5, NS6, TP2, TP3, TP7) Other financial institutions report being better able to support urban transport interventions in Peru, including funding. (Weak Evidence - NT2, NT5) Users have not yet perceived any benefits from the transformation effort: (i) there is no real reduction in travel times, (ii) transit operations have not improved, (iii) cycle lanes/paths were implemented poorly, and they are perceived to be dangerous, discouraging ridership, (iv) no GHG reductions have materialized, (v) fleet renewal/scrapping programs have not yet taken off. (Very Strong Evidence - NT3, NT4, NS4, NS6, NS9, NS10, TP1, TP3) No user-focused awareness campaigns have been conducted and there is still social resistance to any car-use discouraging measures. (Strong Evidence - NT4, NS5, NS6)

			5 SUSTAINABILITY	
5	What is the likelihood that the outcomes will be sustained after the end of the NSP funding period?	<ul style="list-style-type: none"> The extent of the evidence supporting the NSP sustainability (e.g. evidence of self-sustaining institutional structures, and political and financial commitment of key stakeholders). There is little or no risk of backsliding or reversing 	<ul style="list-style-type: none"> Technical Component's activities have helped establish strong and capable institutional, regulatory and operational transit and NMT alternatives. Private sector stakeholders are committed to operating in a more climate-friendly way. The NSP did promote clear, resilient systemic change through its actions. 	<ul style="list-style-type: none"> ATU and PROMOVILIDAD, supported in the National Urban Transport Plan, the MTC's investment plan and the already committed loan/grant agreements, ensure that there will be continuity at least for a few more years. (Very Strong Evidence - NT1, NT2, NS1, NS2, NS6, NS8, NS10, NS3, TP1, TP2, TP3, TP7, AR20) Trained staff under the NSP will move positions, but for the most part remain in the sector and the capacity will remain and spread across to the other areas where they move to. (Very Strong Evidence - NT1, NT2, NT4, NT5, NT7, NS4, NS6, TP2) Strong links between the NSP proposals and work and the NDC commitments do provide additional elements to expect continuity in the GHG emissions reduction effort. (Medium Evidence - NT1, NT2, NT6, NT7). A few pieces of the sector transformation puzzle have been laid out, but there is a lot of implementation and management work to ensure that the efforts deliver the expected benefits to users. (Very Strong Evidence - NT2, NT4, NS2, NS4, NS5, NS8, NS9, NS10, TP1, TP2, TP7) Transit operators will need to be incorporated into the transformation effort sooner rather than later to ensure the change. (Very Strong Evidence - NT2, NS10, TP2, TP7)
			6 LEARNING	
6	What key lessons can be learnt to the benefit of the legacy of this NSP, other NSPs and the NAMA Facility as a whole?	<ul style="list-style-type: none"> The NSP's generation of important lessons for 1) itself; and 2) other projects and/or NSPs. 	<ul style="list-style-type: none"> Lessons from this NSP were used to improve its execution. The NSP generated important lessons for other NSPs. 	<ul style="list-style-type: none"> Reforms at the scale proposed for this NAMA and NSP need to consider both technical and political agendas to ensure that the reforms adopted are adequate. (Very Strong Evidence - NT1, NT2, NT3, NS1, NS2, NT7, TP1, TP2, Given the informal conditions of the transit operators, and their key role in the transformation, they should have been made a more active stakeholder of the NAMA and NSP. (Medium Evidence - NS6, NS8, NS9, NS10, Earlier involvement of the urban transport users in identifying and implementing activities and measures for the urban transport transformation into a low-carbon sector. (Weak Evidence - NS1, NS9)

				<ul style="list-style-type: none"> ▪ Achieving effective urban transport transformation will require a real integrated strategy to tackle the many fronts that need work done. (Medium Evidence - NT1, NT2, NT3) ▪ Gauging the effort made based on output indicators is not always the best way to determine whether the desired transformation is being achieved, particularly when the target systems for transformation are complex. It could be good to provide some other measurements to determine success. (Weak Evidence - NT1, NT3) ▪ NSPs or other NAMAs should be more aware of the political or administrative side effects that may emerge from reforms at the scale proposed (i.e. Delays or resistance to push reforms, administrative challenges of merging organizations). (Weak Evidence - NT1, NT4) ▪ The different foci of GIZ and KfW makes coordination between them difficult. If coordination is desired, some incentives or structures for coordination need to be included in the NSP's Technical and Financial Components. (Single Source - NS4) ▪ The complexity of the desired transformation based on the NAMA objectives was not proportional to the number of resources available to the NSP. (Strong Evidence - NT1, NT5, NS4)
6.1	<p>Based on the lessons learned so far what are the key elements and assumptions that should be taken into account to formulate large-scale transformational projects in the transport sector? How should the NAMA Facility and others use these lessons and information to design and implement new projects?</p>	<ul style="list-style-type: none"> ▪ The NSP's generation of important lessons for the NAMA Facility as a whole. 	<ul style="list-style-type: none"> ▪ Lessons from the NSP are useful to steer the overall strategy of the NAMA Facility in sustainable transport. 	<ul style="list-style-type: none"> ▪ Clear incentives or structures of collaboration and coordination between the Technical and Financial Components implementers is also desirable when synergies can be obtained from their joint work. (Single Source - NT2) ▪ (Other Evidence from ELEQ 6 also contribute to ELEQ 6.1)

Annex E Validity of the causal pathways using process tracing tests

The table below shows the result of the application of formal process tracing tests on the causal pathways of the NSP ToC to assess the strength of the evidence collected by the ELE to either confirm or reject the hypotheses behind each causal chain.

Overview on the validity of the causal pathways using process tracing tests

Formal test	Test description	Causal pathways of the NSP	Process tracing test
Smoking gun (confirmatory)	If evidence is observed, the hypothesis is confirmed. If evidence is not observed, the hypothesis is not confirmed, but this is not enough to reject the hypothesis.	<p>Causal Pathway 1: If public and urban residents (within their capacity to decide on trips made and mode used) learn about sustainable urban transport options and benefits (Output 5 – Technical Component), they will then be more aware of their benefits and opportunities from having it and using it (Technical Component Int. Outcome 4), demanding more and better urban transport and promoting the improved individual and institutional commitment to sustainable urban transport (Outcome 1).</p> <p>Causal pathway 3: If adequate, usable, and updateable GHG estimation and MRV systems for the urban transport sector are developed and tested (Output 2 – Technical Component), then public officials and other policy and decision-makers will be able to understand the relationship between urban transport, GHG emissions</p>	<p>Causal Pathway 1: There are 2 perspectives to consider for Causal Pathway 1. The first of these is the public sector – national government and Lima Perspective, for which very substantial evidence was identified for the outputs, the intermediate outcomes and their impact on Outcome 1, which means that from this perspective the hypothesis is confirmed. The second perspective to consider for this same causal pathway corresponds to the urban residents awareness, which would entail that citizens learned about more sustainable technologies or alternatives would switch to them. However, no evidence was found of awareness campaigns being directed at the urban residents and no shift was detected in the NSP M&E towards these cleaner technologies or urban transport modes, it is not possible to confirm nor reject the hypothesis for this second perspective group.</p> <p>Causal pathway 3: There was substantial evidence for Output 3 that a GHG estimation and MRV system was developed and it was instrumental in supporting Peru’s NDC proposals for the transport sector, which is evidence of the Intermediate Outcome 2. However, the ELE found no clear evidence that the GHG estimations and MRV systems have become key decision-making tools, as they are not yet a key requirement of project appraisal or design. Therefore,</p>

Formal test	Test description	Causal pathways of the NSP	Process tracing test
		<p>and sustainability (Int. Outcome 2 – Technical Component), and will be able to use that information to support sustainable urban transport policy making and programme and project design (Outcome 1).</p> <p>Causal pathway 4: If technical assistance work helps develop regulatory and institutional framework improvement proposals, provides training and upskilling efforts, and assists relevant public sector institutions in designing, financing and executing sustainable urban transport programmes and projects (Outputs 3 and 4 – Technical Component and Output 3 – Financial Component), then national and local governments will experience improved framework conditions, enforcement capabilities and individual capacities to promote sustainable urban transport (Technical Component Int. Outcome 3, Financial Component Int. Outcome 3), producing more robust, implementable and financeable sustainable urban transport policies, programmes and projects (Outcome 1), and also advancing in the implementation of improvements to transit and NMT infrastructures and services to promote their use (Outcome 2).</p>	<p>although there is evidence pointing towards the confirmation of the hypothesis, it does not seem sufficient to either fully confirm it or reject it.</p> <p>Causal Pathway 4: There was extensive evidence of the effort conducted by the NSP – Technical Component in providing technical support to improve the individual capacities of the national and Lima – Callao’s governments to have increased their ability to face and respond to sustainable urban transport challenges, achieving also the co-benefit of strengthening the capacity of consulting firms, collectives, and associations working with those public actors. The ELE also found that the framework for sustainable urban transport improved through the development of ATU, the MTC’s PROMOVIDAD and the National Transport Urban Plan and the investment programme. From this perspective the hypothesis was proven correct. However, as no evidence was found of clear efforts to support local governments to adopt sustainable urban transport elements in their urban plans, they seem to have only advanced in more “administrative/operational” aspects, than on large scale improvements. This would also seem to show that without the evidence (i.e. technical assistance), the hypothesis would not be confirmed, but there is not enough evidence to certainly affirm it.</p>

Formal test	Test description	Causal pathways of the NSP	Process tracing test
Hoop test (disconfirmatory)	If the evidence is not observed, the hypothesis is rejected. If the evidence is observed, the hypothesis is not rejected, but this is not sufficient to confirm the hypothesis.	No causal pathway falls into this category.	
Double decisive	If evidence is observed, the hypothesis is confirmed. If the evidence is not observed, the hypothesis is rejected.	Causal pathway 2: If relevant Multisectoral Working Groups are created and supported with the appropriate rules and tools (Output 1 – Technical Component and Output 1 - Financial Component), then appropriate coordination and intervention mechanisms for the transformation will become operational (Technical and Financial Components’ Int. Outcome 1), making progress in designing and passing the institutional and regulatory reforms required to create the institutional conditions to transform the urban transport sector into a low-carbon one (Outcome 1).	Causal pathway 2. There was significant evidence obtained during the ELE that when task groups are created and they are provided the appropriate support and tools, as was the case with the creation of ATU and PROMOVILIDAD and their support via the National Urban Transport Policy and the investment plan, then adequate mechanisms to drive transformation are achieved, proving this hypothesis correct from the positive perspective. The inability to create the Steering Committee, and the concomitant problems in terms of implementation issues and delays, together with the outright inability to perform monitoring without the Committee, are also conducive to stating that without appropriate multisectoral institutional arrangements and supporting mechanisms, it is not possible to drive the transformation of the urban transport sector.

Formal test	Test description	Causal pathways of the NSP	Process tracing test
<p>Straw in the wind</p>	<p>If the evidence is observed, this is not sufficient to confirm the hypothesis. If the evidence is not observed, this is not sufficient to reject the hypothesis.</p>	<p>Causal Pathway 5: If investments and interventions towards transit and NMT infrastructures and services are supported with and encouraged by financial support and incentives (Output 2 – Financial Component and Output 4 – Financial Component), then governmental institutions will be encouraged to make service and infrastructure improvements for transit and NMT (Financial Component Int. Outcome 2), which will be instrumental in retaining traditional users and attracting potential new users to these more sustainable urban transport options (Outcome 2).</p>	<p>Causal pathway 5: The hypothesis underpinning this causal pathway could not be really tested as the Financial Component of the NSP, which was supposed to have been the vehicle for this financial support and incentives through a combined grant funding and Policy Based Loan (PBL) scheme did not operate as an incentive scheme (details provided in Section 3.2.2). Still, reports produced by the Interamerican Development Bank (IDB) and the Asian Development Bank (ADB) have mentioned the effectiveness of PBL’s to promote regulatory or institutional reforms in various sectors and countries. This leads the ELE to classify this project’s causal pathway 5 under the “Straw in the Wind” category as the information gathered is conflicting and does not allow the hypothesis to be confirmed or rejected for the Urban Transport Sector.</p>

Annex F NSP achievements against logframe indicators

Below are the reported TRANSPerú NSP logframe indicators grouped under the relevant Log Frame Categories. Target and achieved figures are reported with a Red-Green (i.e. target not met-met) assessment. Indicators relevant to the Technical and Financial Components are reported in the individual sections.

F.1 Impact indicators

Impact: Overall project indicator: Key structural changes towards the transformation of the Peruvian urban transport sector into a sustainable low carbon sector are implemented

#	Indicator	Baseline	Target	Achieved* 2020
M1	Reduced GHG emissions [MtCO ₂ e]	0	5.6	3.16
M2	Number of people directly benefitting from NSP [#] (Owners of new vehicles benefitting from an energy efficiency label or fuel economy standard [#])	0	1.5 (300,000)	480 800 (second part of indicator not reported)
M3	Degree to which the supported activities are likely to catalyse impacts beyond the NSP [Number of institutional breakthroughs – <i>Likelihood of transformation</i>]	0	4 (Clear evidence of change, transformation judged very likely)	4 breakthroughs, – “Clear Evidence of Change – Transformation judged very likely”
M4	Public finance (domestic and/or international) mobilized for low carbon investment and development [Billion EUR]	0	At least EUR 5 billion of public and private funds have been mobilised for the NAMA	1.4
M5	Private finance mobilized [Billion EUR]	0		0.8

F.2 Overarching Outcome Indicators

Outcome: Overall project indicator: Key structural changes towards the transformation of the Peruvian urban transport sector into a sustainable low carbon sector are implemented

#	Indicator	Baseline	Target 2020	Achieved*
1	At least 75% of the 77 outputs according to the policy matrix are achieved (M3). [%]	0	75	Outcome not reported, No Policy Matrix Reviews reported after 2019
2	The NAMA is on track (minimum 1.1 MtCO ₂) to mitigate at least 5.6 MtCO ₂ compared to BAU between 2015 and 2025 (M1) [MtCO ₂]	0	5.6	3.16
3	A publicly available index or indicator measuring the social, economic, environmental and institutional performance of the public transport system in Lima/Callao has improved by at least 10% [%]	100	110	111
4	1.5 million persons directly benefitting from improved public transport system in Lima /Callao and 300.000 owners of new vehicles benefitting from an energy efficiency label or fuel economy standard in Peru (M2) [million people]	0	1.5 (0.3)	480 800 (not reported)
5	At least 5 billion Euros of public and private funds mobilised for the NAMA [Billion Euros]	0	5	2.173

*Note: Figures from M&E plan for the Year 2020

F.3 Technical Component Indicators - Outcome indicators

Outcome: Individual and institutional capacities as well as framework conditions for the transformation of the Peruvian urban transport sector are improved				
#	Indicator	Baseline	Target 2020	Achieved*
1.1	A steering committee comprising all relevant public and private stakeholders works according to approved operating rules incl. the development and monitoring of a yearly work programme as well as decision making at vice-ministers or corresponding decision-making level. [Qualitative description]	Informal NAMA Steering Committee held a first meeting; no operating rules approved yet	Steering Committee meets two times a year at the strategic decision-making level and 4 times at the management level according to established operating rules which include amongst others the development and monitoring of a yearly work program, regular meetings of technical working groups for different topics	No The Steering Committee was never formally created due to legal restrictions on the scope and duration of Multisectoral Working Groups in Peru
2.1	Peruvian government publishes a yearly report informing on the NAMA's mitigation impact, its co-benefits, mobilised public and private resources and information on the NAMA implementation progress [# of reports]	No NAMA publications	5 (1 report published per year)	0
3.1	Improved framework conditions: At least 7 additional adjustments regarding the framework conditions or enforcement mechanisms in favour of the transformation to a sustainable low carbon sector are approved	0	7	15 ²³

²³ We judged this as partial achievement of the target indicator as it includes draft documents or proposals that were not necessarily adopted or led to “adjustment to the framework conditions or enforcement mechanisms”.

#	Indicator	Baseline	Target 2020	Achieved*
	(e.g. policies, strategies, programs, laws, decrees, secondary regulation, norms, standards, financing mechanisms, enforcement mechanisms, etc.) [Adjustments approved; cumulative]			
4.1	Strengthened individual capacities: At least 75% of at least 40 trained people to apply the knowledge received by tailor-made capacity building programs in favour of the sector transformation (at least 30% female) [number of people who apply knowledge]	0	30	23

*Note: Figure from M&E plan updated with 2021 figures by the NSP's Technical Component

F.4 Technical Component Indicators - Output indicators

Output 1:
The mechanisms for the coordination of the transformation process have been agreed

#	Indicator	Baseline	Target 2020	Achieved*
1.1	The policy matrix is monitored (and where necessary adjusted) at least twice per year in the frame of official missions by KfW/GIZ and potential further partners (joint indicator for Technical Component and Financial Component) [quantity of official missions; cumulative]	No reports produced	At least twice per year, 8 in total	Only completed till 6/2019
1.2	Steering structure and operating rules approved by the members of the Steering Committee [Yes/No]	Informal NAMA Steering Committee held the first meeting; no operating rules	Yes	Yes

		approved yet		
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*Note: Figure from M&E plan updated with 2021 figures by the NSP’s Technical Component

Output 2: An MRV system is designed and pilot-tested
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#	Indicator	Baseline	Target 2020	Achieved*
2.1	Technical report describing the MRV system is approved by the steering committee, considering the overall approach outlined in the Reference Document / Guidelines on MRV in the transport sector generated by BMWK funded GIZ TRANSfer project [Yes/No]	Currently no regular CO2 monitoring for urban transport	Yes	Yes MRV not approved by NAMA Steering Committee, but by NAMA Multisectoral Working Group
2.2	Relevant and reliable urban transport data for the bottom-up calculation of GHG emissions (vehicle fleet, modal share, travel data, fuel) is available for pilot-testing [Yes/No]	Incomplete data available for pilot-testing	Yes (required data available)	Yes
2.3	Results of pilot-testing [#]	0	1	Indicator not reported in last Annual Report

*Note: Figure from M&E plan 2020 updated with figures from the Technical Component’s Semi-Annual Report 2021

Output 3:

The basis for improving framework conditions and/or enforcement mechanisms for the transformation process is established

#	Indicator	Baseline	Target 2020	Achieved*
3.1	At least 4 working groups for selected topics from the policy matrix work properly (regular participation of relevant stakeholders; work plans, and procedures defined and working; several meetings realised) [number of working groups and working properly]	0	4	5
3.2	At least 10 jointly developed proposals to improve framework conditions and/or enforcement mechanisms (e.g. policies, strategies, programs, laws, decrees, secondary regulation, norms, standards, financing mechanisms, enforcement mechanisms, etc.) were discussed with the decision-making level. [number of proposals; cumulative]	0	10	29

*Note: Figure from M&E plan updated with 2021 figures by the NSP's Technical Component

Output 4:

Capacity development measures on planning, financing and implementing sustainable urban transport have been carried out for selected individuals and organisations

#	Indicator	Baseline	Target 2020	Achieved*
4.1	At least 40 key professionals from relevant institutions – 30% of which are women – have successfully participated (passed exams) in tailor-made capacity building programs on overall 5 topics, identified as priorities in the capacity needs assessment/capacity development strategy (management and/or technical level). [number of key professionals trained]	Insufficient know-how and practical experience in the public and private sectors regarding planning, design, financing and implementation of sustainable urban transport systems	40	85
4.2	At least 2 new or existing organisations have been supported with organizational	0	2	2

	development measures (e.g. single planning authority for Metropolitan Lima or Transport Council for Lima and Callao; MTC with regards to the implementation of the fuel economy standard and label; COFIDE and its partners on the management of fleet modernization programs). [number of supported organizations]			
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*Note: Figure from M&E plan updated with 2021 figures by the NSP's Technical Component

Output 5:
Effective Project Management incl. outreach and contributions to the international learning process on Transport NAMAs

#	Indicator	Baseline	Target 2020	Achieved*
5.1	Milestones in the Gantt chart are achieved at the end of each year. [percentage of milestones achieved annually]	0	80	67
5.2	At least 2 documents on lessons learned are disseminated internationally in close cooperation with BMWK funded GIZ TRANSfer Project (e.g. via the International Expert Groups on MRV or Climate Finance). [number of documents available and disseminated]	0	2	2

*Note: Figure from M&E plan 2021

F.5 Financial Component indicators – Outcome Indicators

OVERARCHING INDICATORS:
Key structural changes towards the transformation of the Peruvian urban transport sector into a sustainable low carbon sector are implemented

#	Indicator	Baseline	Target 2020	Achieved*
1	Mobilised funding on concessional terms has facilitated the implementation of selected measures of the policy matrix. (EUR Million)	0	40	40

*Note: Figure from M&E plan 2021

F.6 Financial Component indicators – Output Indicators

Output 1:

The mechanisms for the coordination of the transformation process have been agreed

#	Indicator	Baseline	Target 2020	Achieved*
1	The policy matrix is monitored (and where necessary adjusted) at least twice per year in the frame of official missions by KfW/GIZ and potential further partners (joint indicator for Technical Component and Financial Component) [quantity of official missions; cumulative]	No reports produced	At least twice per year, 8 in total	6 completed, last mission in 9/2019; during 2020 loan and grant agreement was negotiated and signed

Output 2:

Additional parts of the metro-based transit system in Metropolitan Lima are Planned and Under Construction

#	Indicator	Baseline	Target 2020	Achieved*
2	New metro lines built, planned and contractually engaged (#)	35 km to be finished (metro Line 1), and 31 planned (metro Line 2), no further lines with feasibility studies in a regular and systematic way	First 5 km of metro Line 2 built by 2018. Feasibility studies for further metro lines three and four are undertaken and contractually engaged	More than 5.5 km of metro Line 2 built. Feasibility studies for further metro lines three and four finished. International tendering for line three has started.

Output 3:

The National Sustainable Urban Transport Programme with local governments is prepared for implementation and approved.

#	Indicator	Baseline	Target 2020	Achieved*
3	The investment programme is validated by the National Public Investment System (Invierte.pe)	No investment programme exists	Local Governments get structured support by national line ministries concerning Sustainable Urban Transport	Slow advances, but in progress

Output 4:
 Framework conditions for non-motorised transport are improved at the MML (bicycle lanes and walking areas, etc.).

#	Indicator	Baseline	Target 2020	Achieved*
4	Investment plan for NMT is elaborated and partly in implementation	About 100 km of bicycle lanes that are not connected exist in Lima, no bike lines in secondary cities	> 30 km bike lanes enhanced, existing bike lines maintained	Metropolitan Municipality of Lima has elaborated investment plans for >20 km bicycle lanes

Annex G List of ELE sources

G.1 Internal documents

1. NAMA Facility. 2020. Annual Report 2020 Technical Component. Sustainable Urban Transport – TRANSPerú.
2. NAMA Facility. 2020. Annual Report 2020 Financial Component. Sustainable Urban Transport – TRANSPerú.
3. NAMA Facility. 2019. Annual Report 2019 Technical Component. Sustainable Urban Transport – TRANSPerú.
4. NAMA Facility. 2019. Annual Report 2019 Financial Component. Sustainable Urban Transport – TRANSPerú.
5. NAMA Facility. 2018. Annual Report 2018 Technical Component. Sustainable Urban Transport – TRANSPerú.
6. NAMA Facility. 2018. Annual Report 2018 Financial Component. Sustainable Urban Transport – TRANSPerú.
7. NAMA Facility. 2017. Annual Report 2017 Technical Component. Sustainable Urban Transport – TRANSPerú.
8. NAMA Facility. 2017. Annual Report 2017 Financial Component. Sustainable Urban Transport – TRANSPerú.
9. NAMA Facility. 2016. Annual Report 2016 Technical Component. Sustainable Urban Transport – TRANSPerú.
10. NAMA Facility. 2016. Annual Report 2016 Financial Component. Sustainable Urban Transport – TRANSPerú.
11. NAMA Facility. 2021. NAMA Support Project Proposal Technical Component. NAMA Facility Board, Technical Support Unit (TSU). Deutsche Gesellschaft für Zusammenarbeit (GIZ). Sustainable Urban Transport (TRANSPerú).
12. NAMA Facility. 2021. NAMA Support Project Proposal Financial Component. NAMA Facility Board, Technical Support Unit (TSU). Deutsche Gesellschaft für Zusammenarbeit (GIZ). Sustainable Urban Transport (TRANSPerú).
13. NAMA Facility. 2021. Semi-Annual Report 2021, 01.01.2021 – 30.06.2021 Technical Component. Sustainable Urban Transport – TRANSPerú.
14. NAMA Facility. 2020. Semi-Annual Report 2020, 01.01.2020 – 30.06.2020 Financial Component. Sustainable Urban Transport – TRANSPerú.

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15. NAMA Facility. 2020. *Semi-Annual Report 2020, 01.01.2020 – 30.06.2020 Technical Component*. Sustainable Urban Transport – TRANSPerú.
 16. NAMA Facility. 2019. *Semi-Annual Report 2019, 01.01.2019 – 30.06.2019 Financial Component*. Sustainable Urban Transport – TRANSPerú.
 17. NAMA Facility. 2019. *Semi-Annual Report 2019, 01.01.2019 – 30.06.2019 Technical Component*. Sustainable Urban Transport – TRANSPerú.
 18. NAMA Facility. 2018. *Semi-Annual Report 2018, 01.01.2018 – 30.06.2018 Financial Component*. Sustainable Urban Transport – TRANSPerú.
 19. NAMA Facility. 2018. *Semi-Annual Report 2018, 01.01.2018 – 30.06.2018 Technical Component*. Sustainable Urban Transport – TRANSPerú.
 20. NAMA Facility. 2017. *Semi-Annual Report 2017, 01.01.2017 – 30.06.2017 Financial Component*. Sustainable Urban Transport – TRANSPerú.
 21. NAMA Facility. 2017. *Semi-Annual Report 2017, 01.01.2017 – 30.06.2017 Technical Component*. Sustainable Urban Transport – TRANSPerú.
 22. NAMA Facility. 2016. *Semi-Annual Report 2016, 01.01.2016 – 30.06.2016 Financial Component*. Sustainable Urban Transport – TRANSPerú.
 23. NAMA Facility. 2016. *Semi-Annual Report 2016, 01.01.2016 – 30.06.2016 Financial Component*. Sustainable Urban Transport – TRANSPerú.
 24. NAMA Facility. 2016. *Semi-Annual Report 2016, 01.01.2016 – 30.06.2016 Technical Component*. Sustainable Urban Transport – TRANSPerú.

G.2 Public documents

1. NSP. 2020. *“Recolección de datos de transporte urbano y factores claves para el desarrollo del esquema de un Sistema de Monitoreo, Reporte y Verificación (MRV) de los medios de transporte urbano para Lima Metropolitana y Callao” – Análisis de movilidad y estimación de emisiones*. NAMA Support Project, Peru.
2. NSP. 2020. *“Recolección de datos de transporte urbano y factores claves para el desarrollo del esquema de un Sistema de Monitoreo, Reporte y Verificación (MRV) de los medios de transporte urbano para Lima Metropolitana y Callao” – Entregable final*. NAMA Support Project, Peru.
3. NSP. 2020. *“Recolección de datos de transporte urbano y factores claves para el desarrollo del esquema de un Sistema de Monitoreo, Reporte y Verificación (MRV) de los medios de transporte urbano para Lima Metropolitana y Callao”. Estimación del parque vehicular de Lima Metropolitana*. NAMA Support Project, Peru.

4. Schulz Antipa, Paulina. 2021. *Reporte MRV (Monitoreo Reporte y Verificación) para la NAMA de transporte urbano de transporte sostenible de Lima y Callao*. NAMA Support Project (NSP), Peru.
5. Interamerican Development Bank (IDB) – Office of Evaluation and Oversight (2015). *“Design and Use of Policy- Based Loans at the IDB”*. Technical Note. Interamerican Development Bank, Washington D.C.
6. Asian Development Bank (ADB) (2007). *“Policy-Based Lending: Emerging Practices in Supporting Reforms in Developing Member Countries”*. Asian Development Bank, Manila.

G.3 List of organisations interviewed

Institution	Position
NSP Team	
GIZ	Project Director
GIZ	Ex-Project Director
GIZ	Director of Operations
GIZ	Project Coordinator
GIZ	Process expert
GIZ	Monitoring expert
GIZ	Other roles
GIZ	Other roles
GIZ	Other roles
KfW	Project coordinator
NSP Stakeholder	
Piura Municipality	Advisor to the Mayor
Ministry of the Environment (MINAM)	Ex Dirección General de Cambio Climático
Ministry of the Environment (MINAM)	Mitigation specialist
Ministry of the Environment (MINAM)	Mitigation director
Metropolitan Transport of Trujillo	Director
Ministry of Transport (MTC)	Planning and technical cooperation Department
Housing Ministry	Multiple Roles
Ministry of Economics and Finance (MEF)	Multiple Roles
British Embassy in Peru (FCDO)	
Urban Transport Authority (ATU)	
Third-Party	
Despacio	Executive director
Corporación Andina de Fomento (CAF)	Transport Specialist
Centro de Investigación Desarrollo y Asesoría del Transporte Terrestre (CIDATT)	Consultant
CICLOACCIÓN	Director
ÜBER	Regional Director

TRANSITEMOS	Director
APROBIKE Perú	
The World Bank (WB)	Transport Specialist
Lima Cómo Vamos	Executive Director
AAEDIVE	Multiple Roles

Annex H ELE Terms of Reference



ELE #7

NSP Peru Transport

Final evaluation of the NSP

Background

This document describes the final Evaluation and Learning Exercise (ELE) of the NAMA Support Project (NSP) 'Peru Transport' (referred in this document Peru Transport NSP). This is a work package commissioned under the Project title and contract number below.

Project title:	Project evaluation and learning exercises for the NAMA Facility
Project and reference number:	12.9097.2-108.00 / 81238912
ELE scope (mid-term/final):	Final ELE
ELE focus (TC/FC/both):	Both components

1 Terms of reference

1.1 General TORs as defined in TORs for all ELEs and theoretical framework

This ELE is implemented within the general Terms of References (TORs) and following the theoretical framework, and these two documents are binding.

However, as a short reminder, the focus is on the following three questions:

- Has the NSP achieved its planned results?
- Has the NSP started to trigger transformational change?
- What can be learnt from the NSP?

1.2 Specific additional elements to be considered in this ELE

Please note below the additional elements/questions to be considered in this ELE:

1. How decisive for the successful transformation was the NSP's holistic approach of financial and technical cooperation and the outlook of KfW's credit support and additional direct assistance for the configuration and implementation by Deutsche Klima- und Technologieinitiative (DKTI) This will be measured via the following elements:
 - a. Was the NSP able to mobilise public or private investment towards sustainable urban transport at the desired scale in Peru? If not, has there been some analysis as to why the mobilisation did not take place? (ELEQ 2)
 - b. What evidence is there of a shift in attitudes towards Transit and Non-Motorised Transport (NMT) for urban mobility in Peru? To what extent can that shift be attributed to the NSP's work? (ELEQ 2 and ELEQ 4)
 - c. Was the proposed Policy Based Loan (PBL) scheme adequate as an incentive framework to promote reforms that require multi-sectoral collaborations? (ELEQ 2)
2. To what extent did the NSP gain value or add value to other donor-supported sustainable (urban) transport initiatives at the national or subnational scales? Which types of initiative prove to have the largest potential for synergies? (ELEQ 2.1)
3. How relevant and effective was the Steering Committee for the TRANSPerú NAMA for NSP progress? Are its members showing commitment and support to the desired transformative change effort? (ELEQ 3.1)

4. How did the COVID-19 pandemic influence the urban transport sector in Peru and did the NSP contribute to a resilient response from the sector to this unexpected context? (ELEQ 1.2 and ELEQ 2)
5. To what extent did the NSP manage to mainstream a gender perspective into the project's implementation? How did the NSP contribute to a more equitable gender perspective in the urban transport sector in Peru? (ELEQ 2)

1.3 Specific elements/questions that will not be considered in this ELE

The general TORs and the theoretical framework allow for a prioritisation of some evaluation questions at the expense of other evaluation questions. Please note below those elements/questions which will not be considered in this ELE:

- The ELE will focus on understanding the contribution of the NSP to its intended outcomes and impact and the lessons generated, and will not undertake a thorough verification of the delivery of the NSP's outputs, e.g. reviewing minutes of meetings, counting male and female participants to events etc. However, as per ELE Theoretical Framework, "a rapid review of the quality of the data produced by the NSP M&E system will be carried out, including how regular and comprehensive it is, and how reliable the data sources are".

2 Suggested staff

The contractor suggests the following staff (see CVs attached):

- Senior International Expert A (ELE Team Leader): Andres Baquero
- Senior International Expert B: Julio Guzmán
- Senior National Expert: Enver Figueroa

3 Timing

The contractor suggests the following timing:

Item	Date / period	Comment
Kick-off call TSU / ELE team / NSP	12/07/2021	
Exchange of preliminary information	22/07/2021	
Availability of detailed agenda	06/09/2021	
Field phase	13-24/09/2021	Virtually
Draft report delivery	22/10/21	
Final report delivery	22/11/21	Assuming one feedback cycle. (Note that the TORs allow for more feedback cycles if necessary)

4 TSU agreement

The TSU agrees to the TORs, team and timing described above.

First Name Last Name (electronic signature)

Ernesta Maciulyte

Digital unterschrieben von Ernesta Maciulyte
 Datum: 2021.09.15 10:27:56 +02'00'

Annex I TRANSPerú NAMA Policy Matrix

Sustainable Urban Transport NAMA Peru
Version: 09 June 2015

ANNEX 9 POLICY MATRIX- VERSION 09.6.2015

Component – problem	Institution responsible (institutions involved)	Outputs		Outcomes (through June 2019)	
		Programme 1 (through December 2016)	Programme 2 (January 2017 – June 2018)		
1. Integrated public mass transport system in Lima/Callao					
(1.1) Limited capacity and coverage of the current public mass transportation system to meet demand for 12 million public transport trips per day ¹ with fast, safe services, greater energy efficiency and less pollution.	<u>Coverage:</u> Metropolitan Area of Lima and Callao <u>Approach:</u> ² S-I; <u>Modes:</u> Metro <u>Starting point:</u> feasibility study for Line 2 (2013) and concession contract signed (2014)	MTC – (MML, AATE)	Metro Line 1 consolidating as a transport system on the city's south-northeast axis. Line 2, Segment 5 (Section 1A: Bypass – Santa Anita market) constructed. Construction work started on Line 2 (Section 1B: Santa Anita market – Central Station). Line 3 studies approved Line 4 studies in development.	Metro Line 1 consolidated as a transport system on the city's south-northeast axis. Line 2, Segment 5 (Section 1A: Bypass – Santa Anita market) equipped and operational. Line 2 – Section 1B, Segments 3 and 4 (Bypass – Central Station) and Segment 6 (Santa Anita market – Municipality of Ate) under construction. Line 3 project contracted out. Line 4 studies approved. Feeder routes for Line 2, Section 1A restructured.	Lines 1 and 2 (Segment 5- Section 1A) of Lima Metro carry 5% of public transit trips in the metropolis. Annual time savings for users total 5 million hours. SIT ³ CO ₂ emissions decrease by 4% while the accident rate decreases by 5%.
	<u>Coverage:</u> Metropolitan Area of Lima and Callao <u>Approach:</u> S/I. <u>Modes:</u> Metropolitano ⁴ <u>Starting point:</u> Feasibility study and contracts to	MML GTU⁵ – (Protransporte ⁶ , MTC)	Operations begun in 2 complementary corridors. Regular passenger transport system restructured and streamlined. Expansion of Metropolitano 1	Metropolitano 1 expansion operational: Naranjal Station – Carabayllo Expansion of Metropolitano 1 underway: • Tomás Valle- Airport	

¹ Japan International Cooperation Agency (JICA) Master Plan

² Indication regarding Avoid-Shift-Improve approach (A = Avoid trips, S = Shift to less carbon intense modes, I = Improve vehicles and fleets)

³ Integrated Transit System

⁴ Metropolitano is the Lima Metropolitan Area's Bus Rapid Transit (BRT) system.

⁵ Urban Transport Management

⁶ Agency that operates Metropolitano

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Component – problem		Institution responsible (institutions involved)	Outputs		Outcomes (through June 2019)
			Programme 1 (through December 2016)	Programme 2 (January 2017 – June 2018)	
	operate complementary and connecting corridors		<p>underway: Naranjal Station – Carabaylo</p> <p>Pre-investment studies for expansion of Metropolitano 1 completed:</p> <ul style="list-style-type: none"> • Tomás Valle- Airport • Grau Station – Metro Line 1 	<ul style="list-style-type: none"> • Grau Station – Metro Line 1 <p>Improved and operational infrastructure for complementary corridors.</p>	
(1.2) Lack of an integrated urban transport system, including the Lima Metro, Metropolitano, complementary corridors, and feeder routes make it difficult for the population to access the system's benefits.	<p><u>Coverage:</u> Metropolitan Area of Lima and Callao</p> <p><u>Approach:</u> S</p> <p><u>Modes:</u> Metro, Metropolitano, complementary and connecting corridors, and feeder routes.</p>	MTC (AATE, MML-GTU, Protransporte, MPC ⁷)	<p>Studies begun to physically integrate the Lima Metropolitan Area's urban transport system.</p>	<p>Construction underway to physically integrate the Lima Metropolitan Area's urban transport system.</p>	<p>The inauguration of 12 intermodal transport interchange facilities has improved passenger accessibility and increased the number of trips on the Metropolitano and Metro by 0.5%.</p> <p>Annual time savings for users total 1 million hours. SIT CO₂ emissions decrease by 4% while the accident rate decreases by 1%.</p>
(1.3) Lack of integration in terms of itineraries, technology, fares and ticketing in urban public transport systems in the city make it difficult for passengers to access the system's benefits.	<p><u>Coverage:</u> Metropolitan Area of Lima</p> <p><u>Approach:</u> S</p> <p><u>Modes:</u> Metro, Metropolitano, complementary and connecting corridors.</p>	MTC (AATE, MML-GTU, Protransporte, MPC, MVCS-DGPRVU ⁸)	<p>Studies completed on fare integration involving a single fare collection and distribution system.</p> <p>Pilot of integration of itinerary and fare collection system carried out at two intersection points of the Lima Metro and the Metropolitano.</p>	<p>Unified fare collection system for the Lima Metro and the Metropolitano in process of implementation.</p>	<p>The inauguration of a unified fare collection system has reduced barriers to access to the system and has increased the number of public transit trips on the Metropolitano and Metro by 1% annually.</p> <p>Annual time savings for users total 2 million hours. SIT CO₂ emissions decrease by 4% while the accident rate decreases by 1%.</p>

⁷ Callao Provincial Municipality

⁸ Ministry of Housing, Construction and Sanitation – Directorate-General for Housing and Urban Planning Policy and Regulation

Component – problem		Institution responsible (institutions involved)	Outputs		Outcomes (through June 2019)
			Programme 1 (through December 2016)	Programme 2 (January 2017 – June 2018)	
(1.4) Limitations of the transport system linking the Lima Metropolitan Area with nearby provinces.	<u>Coverage:</u> Lima - Provinces <u>Approach:</u> S <u>Modes:</u> Metro, Metropolitano, commuter train	MTC (AATE, GORE Lima Provinces, ⁹ MML)	Pre-investment profile studies for prioritized commuter train underway.	Pre-investment feasibility studies completed for prioritized commuter train underway.	Feasibility study for the first suburban commuter train Lima - Provinces commuter rail service has been completed. The service provides interurban mass transit and connects with the urban passenger transportation system.
2. Non-motorized transport in Lima					
(2.1.) Limited use of non-motorised transport and poor conditions for safe and efficient mobility for pedestrians and cyclists in the Lima Metropolitan Area.	<u>Coverage:</u> Metropolitan Area of Lima and Callao <u>Approach:</u> A <u>Modes:</u> Non-motorised transport <u>Starting point:</u> MML TNM ¹⁰ pre-investment studies on non-motorised transport	MML, MPC (District Municipalities, MVCS)	Plan on non-motorised transport for Lima and Callao, including an investment plan (project portfolio) and design for an implementation and financing strategy. Elaboration of pilot plan for pedestrianisation of urban centres (containing the city's main attractions) underway. Implementation of pedestrianisation pilot plans and analysis of results have begun.	System for supervising and monitoring local governments' implementation of the plan on non-motorized transport in effect. Implementation of the first stage of the non-motorised travel plan's project portfolio for Lima and Callao. Implementation of the pedestrianisation pilot plans and analysis of results in process.	Increase in non-motorised transport. Daily bicycle trips have increased 40% while intermodal trips have increased 20%.
(2.2.) Limited citizen awareness and involvement in furthering sustainable urban mobility.	<u>Coverage:</u> Metropolitan Area of Lima and Callao <u>Approach:</u> A <u>Modes:</u> Non-motorised transport	MML, MPC (District Municipalities, MVCS)	Mass public awareness and information campaigns to promote respect for pedestrians and cyclists developed. Mass awareness campaigns developed to promote non-motorised transport (divided by primary, secondary, institute and university students,	X inspectors and advisors from provincial and district municipalities trained on the respect for cyclist campaigns. Mass communication campaigns about cycling lanes underway. Application for cyclists showing the existent cycling lane network, including a map of	

⁹ Regional Government of Lima Provinces¹⁰ Non-motorized transport unit within MML

Component – problem		Institution responsible (institutions involved)	Outputs		Outcomes (through June 2019)
			Programme 1 (through December 2016)	Programme 2 (January 2017 – June 2018)	
			workers at public and private institutions) developed. Mega-events organised (Car-Free Day in 10 districts and in the Lima Metropolitan Area). Closure of 10 historic centres and 5 universities with the support of 3 bicycle activist communities. International Non-Motorised Mobility Forum took place.	bicycle-friendly places and bicycle workshops developed.	
3. Institutional development to improve urban transport management in Lima/ Callao					
(3.1) Lack of integrated urban transport management in the Lima Metropolitan Area results in poor service, and decreased system safety and productivity.	<u>Coverage:</u> Lima Metropolitan Area <u>Approach:</u> A <u>Modes:</u> all <u>Starting point:</u> MTC proposal to create an Urban Transport Authority	MTC (all member institutions of the NAMA Committee)	Updated proposal to create a Metropolitan Transport Authority for Lima and Callao. Coordination agreement regarding urban transport signed by MML and MPC.	Proposal to create a Metropolitan Transport Authority for Lima and Callao in process of dissemination and discussion. Regulations applicable to urban sustainable transport revised and updated.	Structural deficiencies have been reduced; urban transport management is more integrated among different levels of government.
(3.2) Need to upgrade the capacities of the institution responsible for electric mass transportation systems in the Lima Metropolitan Area and Callao.	<u>Coverage:</u> Metropolitan Area of Lima and Callao <u>Approach:</u> A <u>Modes:</u> Metro <u>Starting point:</u> Assessment of the current state of AATE	MTC (AATE)	Study completed to strengthen the management capacities of the institution responsible for the electric mass transportation systems in the Lima Metropolitan Area and Callao.	A new management model implemented for the agency responsible for the electric mass transit systems in the Lima Metropolitan Area and Callao.	New Rules of Organisation and Operations and Manual of Organisation and Operation approved. The institution responsible for the electric mass transit systems in the Lima Metropolitan Area and Callao is applying a management model using standardized processes.
4. Vehicle homologation and fuel efficiency for light vehicles					

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Component – problem	Institution responsible (institutions involved)	Outputs		Outcomes (through June 2019)	
		Programme 1 (through December 2016)	Programme 2 (January 2017 – June 2018)		
(4.1) High levels of greenhouse gas (GHG) emissions from the transport sector create adverse environmental conditions.	<u>Coverage:</u> national <u>Approach:</u> I <u>Modes:</u> all <u>Starting point:</u> MINAM and DIGESA evaluations	MTC - DGASA ¹¹ (MINAM ¹² , MINEM-DGH ¹³ , MINSA-DIGESA ¹⁴)	Review of mitigation actions prioritised by Plan CC and update of the national greenhouse gas inventory for the transport sector.	Second report on the review of GHG mitigation actions submitted. National plan for mitigation actions in urban transport - 2021 approved.	The National Action Plan is being implemented in Lima and ten prioritized medium-sized cities.
(4.2) High primary pollutant emission levels from the motorised transport sector create adverse public health conditions.	<u>Coverage:</u> national <u>Approach:</u> I <u>Modes:</u> all <u>Starting point:</u> outcomes of PISA I ¹⁵ , monitoring of PISA II and climate change mitigation measures established in the Plan CC for climate change.	MTC, MINAM (Clean Air Committee, MML, MINSA, MINEM-DGEE ¹⁶ , COFIDE ¹⁷)	Proposal for an update of the current regulation on maximum allowable limits for pollutant gas emissions applicable to the motor vehicle fleet at the national level revised. Compendium of applicable regulations and institutional responsibilities regarding the regulation and control of primary air pollutants completed.	Updated legislation and regulations concerning maximum allowable limits for pollutant gas emissions by the vehicle fleet at the national level published. Legal instrument at the level of the President's Cabinet Office published to realign institutional responsibilities.	First report on the results of the application of the new maximum allowable limits in Lima and 10 prioritized medium-sized cities has been published.
(4.3.) Weaknesses in the regulation and management of the vehicle certification system affect road safety, increase emissions of CO ₂ and other pollutant gases and result in a lack	<u>Coverage:</u> national <u>Approach:</u> I <u>Modes:</u> all <u>Starting point:</u> existing	MTC (MINAM, MINEM - DGEE)	Committee for vehicle homologation created and functioning. The edict modifying Supreme Decree 058.2003-MTC on vehicle homologation approved.	National vehicle homologation system in operation and functioning. Paper-based homologation system operational. Physical homologation system initiated.	100% of new vehicles entering the Peruvian market meet technical homologation requirements and comply with the established maximum allowable pollution limits. All vehicles are certified, labelled, and comply with the energy efficiency directive.

¹¹ Directorate General for Socio-Environmental Affairs,

¹² Ministry of the Environment

¹³ Ministry of Energy and Mining – Directorate-General for Energy Efficiency

¹⁴ Ministry of Health - Directorate General for Environmental Health

¹⁵ comprehensive clean air plan for Lima and Callao

¹⁶ Ministry of Energy and Mining- Directorate-General of Energy Efficiency

¹⁷ COFIDE is a Peruvian development bank.

Component – problem		Institution responsible (institutions involved)	Outputs		Outcomes (through June 2019)
			Programme 1 (through December 2016)	Programme 2 (January 2017 – June 2018)	
of control over the quality of the vehicle fleet.	regulations		<p>Technical data sheets used for vehicle homologation updated.</p> <p>National Vehicle Certification Registry functioning.</p> <p>Paper-based homologation system operational.</p> <p>Project developed to regulate and label the energy efficiency and CO₂ emissions of light vehicles.</p>	<p>Regulations approved to label the energy efficiency and CO₂ emissions of light vehicles.</p> <p>Labelling the energy efficiency and CO₂ emissions of light vehicles has begun.</p>	
(4.4.) The decline of natural gas vehicles (NGV) and the substitution of liquid petroleum gas (LPG) in the public transport fleet.	<p><u>Coverage:</u> national (areas supplied with NGV and LPG)</p> <p><u>Approach:</u> I</p> <p><u>Modes:</u> Buses and light vehicles</p> <p><u>Starting point:</u> Assessment of NGV and LPG consumption in Lima and Callao (AGESP)¹⁸</p>	MTC (COFIDE, MINEM-DGEE, MINAM)	<p>Reactivation and strengthening of the NGV Supervisory Board and the creation of a Technical Secretariat.</p> <p>Comprehensive plan to reactivate NGV conversion system has started.</p> <p>Review of legal framework for NGV and LPG conversion system in process.</p> <p>Reactivation and strengthening of LPG Supervisory Board completed.</p>	<p>NGV Supervisory Board and Technical Secretariat functioning.</p> <p>Strategy approved for sequential migration from fuel used by urban transport (fossil fuels - NGV – conventional electric energy – renewable energy) as a basis for changing the urban transport energy matrix.</p> <p>30 NGV stations in 5 secondary cities made operational.</p>	<p>5% increase in NGV conversion and consumption in urban transport and a 10% annual NGV conversion rate.</p> <p>Conversion to LPG through a controlled system.</p>

¹⁸ Association of Service Stations of Peru

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Component – problem	Institution responsible (institutions involved)	Outputs		Outcomes (through June 2019)	
		Programme 1 (through December 2016)	Programme 2 (January 2017 – June 2018)		
(4.5) Lack of detailed and updated information (inventory) of Greenhouse Gas Emissions (GHG) and primary polluting gas emissions resulting from land transport hinders the assurance of results and the achievement of environmental commitments.	<u>Coverage:</u> national <u>Approach:</u> I <u>Modes:</u> all <u>Starting point:</u> outcomes of PISA I ¹⁹ ; follow-up of PISA II.	MTC (MINEM DGEE, DIGESA-MINSA)	Baseline for primary air pollutants, greenhouse gas emissions and emission factors approved by main cities in the country. Inventories presented of GHGs and local air pollutants emitted by urban transport at the national level.	Inventory of GHG emissions and for primary pollutants updated for main cities in the country.	Complete and reliable information for GHG and primary contaminant performance during the period 2016-2019 (inventory and updates) that enables decision-making.
5. Modernization of the public transport vehicle fleet					
(5.1) The age of vehicles used in public transport services creates adverse conditions in terms of pollution and safety for the population.	<u>Coverage:</u> Metropolitan Area of Lima and 2 medium-sized cities <u>Approach:</u> I <u>Modes:</u> public buses, taxis <u>Starting point:</u> vehicle scrapping programme	MTC (MML, Protransporte, MPC, MEF ²⁰ , MINAM, COFIDE, Municipalities)	Approval of general guidelines for fleet renewal (for secondary cities) and national legislative and regulatory framework applicable to the renewal and reduction of vehicle fleet. Strategy to modernise the vehicle fleet updated. Sector strategy to finance vehicle-scrapping programme approved (as a budget line item or a national fund for vehicle scrapping).	Scrapping program underway for Lima Metropolitan Area, in areas of influence of Metro, Metropolitan, complementary and connecting corridors, and feeder routes. Designs completed for light vehicle scrapping programmes in two intermediate cities.	Up to 6,000 obsolete urban transport units in the Lima Metropolitan Area have been retired and replaced by 1,800 new, higher-capacity standard buses
(5.2) The fuel consumption tax scheme is not consistent with the objective of reducing environmental pollution; it promotes the use of	<u>Approach:</u> I <u>Modes:</u> all vehicles <u>Starting point:</u> existing scheme	MTC (MINEM-DGH, MEF, MINAM)	Proposed amendment to the applicable fuel consumption tax updated to align with stated policies.	Proposal approved for national policy on use of cleaner fuels for public transport.	Negative externalities resulting from the taxation system have been reduced by X.

¹⁹ comprehensive clean air plan for Lima and Callao

²⁰ Ministry of Economic and Financial Affairs

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Component – problem	Institution responsible (institutions involved)	Outputs		Outcomes (through June 2019)	
		Programme 1 (through December 2016)	Programme 2 (January 2017 – June 2018)		
polluting fuels in public transport.					
(5.3.) Weaknesses in the vehicle inspection system create adverse conditions in terms of safety and pollution.	<u>Coverage:</u> national <u>Approach:</u> I <u>Modes:</u> all <u>Starting point:</u> existing scheme	MTC (regional governments)	New legislative and regulatory framework to strengthen vehicle inspection system approved. Capacities and necessary equipment for inspection (supervision, monitoring, sanctions) strengthened.	New vehicle inspection system implemented and fully functioning in Lima and 10 medium-sized cities.	Implementation of the new vehicle inspection system contributes to a reduction in the number of accidents and the mitigation of polluting emissions.
6. Support to local governments to strengthen sustainable urban transport.					
(6.1) Lack of explicit national policies for sustainable urban transport in Peru's interior cities leads to inefficiency and a lack of safety in urban transport.	<u>Coverage:</u> medium-sized cities (population 100,000 plus) <u>Approach:</u> S-A-I <u>Modes:</u> all <u>Starting point:</u> CAF-MTC study (Argentinian consulting group)	MTC (MVCS)	National Sustainable Urban Transport Policy formulated. Proposal on the institutional structure for the execution of the National Urban Transport Policy and the national urban transport programme presented.	National Sustainable Urban Transport Policy approved. Institutional structure to execute national policy and program approved by Supreme Decree and operational.	Implementation of the National Sustainable Urban Transport Policy has created adequate conditions for the planning, financing, construction and operation of sustainable urban transport measures. • 12 sustainable urban transport plans approved. • 18 public investment projects approved. Review numbers based on the number of intermediate cities identified.
(6.2) The institutional and financial weakness of local governments in the area of urban transport management hinders efforts to finance, construct, and operate efficient, sustainable public transport systems.	<u>Coverage:</u> medium-sized cities (population 100,000 plus) <u>Approach:</u> S-A-I <u>Modes:</u> all <u>Starting point:</u> drafts of master	MTC (MEF, MVCS, Municipalities)	SNIP ²¹ profile study formulated for the National Sustainable Urban Transport Programme to develop sustainable urban transport plans (PTUS) for medium-sized cities.	SNIP feasibility study approved for the National Sustainable Urban Transport Program in order to develop PTUS in medium-sized cities. Technical and financial assistance mechanisms for the National Programme approved. Proposal to strengthen urban	

²¹ National Public Investment System

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Component – problem		Institution responsible (institutions involved)	Outputs		Outcomes (through June 2019)
			Programme 1 (through December 2016)	Programme 2 (January 2017 – June 2018)	
	plans and urban transport plans from some local governments.			transport management in medium-sized cities developed and presented to provincial municipalities.	