"Appropriate National Mitigation Actions (NAMA) in the sectors of power generation and its end use in Peru"

Final Version

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Acknowledgments

The evaluator would like to thank all the people who gave me their time and effort so that this work could be done. I would first like to mention the NAMA project implementation team, the Directorate-General for Energy Efficiency and the staff of the UNDP office in Lima, who facilitated at all times the development of the activities of this evaluation and provided all the information requested by me.

I would also like to thank the officials of the Ministry of Energy & Mines (MINEM), the Ministry of the Environment (MINAM) and other public and private institutions for their collaboration in the interviews.

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Project Information Table

Project Details		***Project Milestones***	
Project Title	Nationally Appropriate Mitigation Actions in the Energy Generation and End-Use Sectors of Peru	PIF Approval Date:	April 16, 2012
UNDP Project ID (PIMS #):	4679	CEO Endorsement Date (FSP) / Approval date (MSP):	April 9, 2014
GEF Project ID:	88316	ProDoc Signature Date:	Oct 19, 2015
UNDP Atlas Business Unit, Award ID, Project ID:	77699	Date Project Manager hired:	April 1st, 2016
Country/Countries:	Peru	Inception Workshop Date:	June 15, 2016
Region	LAC	Mid-Term Review Completion Date:	July 1, 2019
Focal Area:	Cambio Climático	Terminal Evaluation Completion date:	April 29, 2021
GEF Operational Programme or Strategic Priorities/Objectives:	FA objectives: # 3 (CCM-3): "Promoting Investment in Renewable Energy Technologies"; and # 6 (CCM-6): "Supporting support and capacity-building activities under the Convention"	Planned Operational Closure Date:	April 19, 2021
Trust Fund:	GEF		
Implementing Partner (GEF Executing Entity):	Ministry of Energy and Mines (MINEM)		
NGOs/CBOs involvement:	No		
Private sector involvement:	Consultations		
Geospatial coordinates of project sites:	N/A		
Financial Information			
PDF/PPG	***at approval (US$)***	***at PDF/PPG completion (US$)***	
GEF PDF/PPG grants for project preparation	45,000	45,000	
Co-financing for project preparation	N/A	N/A	
Project	***at CEO Endorsement (US$)***	***at TE (US$)***	
[1] UNDP contribution:	1,060,000	859,618	
[2] Government:	30,950,000	90,710,782	
[3] Other multi-/bi-laterals:	N/A	N/A	
[4] Private Sector:	N/A	N/A	
[5] NGOs:	N/A	N/A	
[6] Total co-financing [1 + 2 + 3 + 4 + 5]:	32,010,000	91,570,400	
[7] Total GEF funding:	4,500,000	4,470,412	
[8] Total Project Funding [6 + 7]	36,510,000	96,040,812	

List of Acronyms

BAU Business as usual
CDM Clean Development Mechanism
CEPLAN National Center for Strategic Planning
CNCC National Climate Change Commission
CO2 Carbon dioxide
EE Energy Efficiency
ERNC Non-Conventional Renewable Energy
FDI Foreign direct investment
FISE Social Inclusion Energy Fund
FiT Feed-in tariff
FONER National Fund for Rural Electrification
GEF Global Environment Facility
GHG Greenhouse Gas
GoP Government of Peru
IDB Inter-American Development Bank
InformaGEI Data Generation Network for the National Greenhouse gases Inventory KWh Kilowatt-hour
LECB Low Emission Capacity Building Project
LEDS Low Emission Development Strategies
MINAM Ministry of Environment
MEF Ministry of Economy and Finance
MINEM Ministry of Energy and Mines
MRV Monitoring, Reporting and Verification
NAMA Nationally Appropriate Mitigation Action
MTC: Ministry of Transport
NGO Non-Governmental Organization
NUMES New Sustainable Energy Matrix Project
OSINERGMIN Energy and Mining Investment Supervisory Board
PIR Project Implementation Review
PNER National Rural Electrification Plan
PPA Purchasing Power Agreement
PROSEMER National Program for Efficient and Sustainable Energy
PSC Project Steering Committee
PV Photovoltaic
RE Renewable Energy
RBB Result Based Budgeting
SCNCC Second National Communication on Climate Change
MWh Megawatt hour
WB World Bank
UNDP United Nations Development Programme
UNFCCC United Nations Framework Convention on Climate Change

Executive Summary.

This consultancy corresponds to the Final Evaluation of the full-size GEF project called “National Appropriate Mitigation Actions (NAMA) in the sectors of power generation and its final use in Peru” (hereinafter referred as the project), which was requested by the Country Office of the United Nations Development Program (UNDP), which acts as the implementing agency of the Global Environment Facility (GEF), while the Ministry of Energy and Mines (MINEM), through its General Directorate Energy Efficiency (DGEE) is the national executing entity and responsible for the project. The objectives of the evaluation were to verify the achievement of the project's goals and products, while having an understanding of the determining factors that affected their achievements and extracting the lessons learned from the experience to improve the design practices of future projects. The stated objective of the NAMA project is "To support the Government of Peru in the development and implementation of appropriate national mitigation actions in the energy sector", so that the country could meet its voluntary greenhouse gas (GHG) reduction commitments. To achieve this objective, it was decided to focus efforts on 3 subsectors (electricity generation connected and not connected to the grid, and end uses), where 4 NAMAs should be identified, developed and executed and a monitoring, verification and reporting system for their results (MRV) should be created. In addition, the project should provide technical assistance to the public sector in the preparation of GHG inventories, sectoral policies and regulations to support the introduction of Non-Conventional Renewable Energies (NCRE) in Peru's energy matrix.

According to the project document signed by the Government of Peru, the duration of the project would be five years (Oct 2015-Oct 2020) and would have a national scope, with direct and indirect reduction targets of 962,000 and 1.6 million tons of CO_2 respectively. However, delays in the start of the execution of the project and then by the problems caused by the situation of political and institutional instability existing in the country and the pandemic, forced to carry out 2 extensions of the project (2019, 2020) establishing April 2021 as the end date, so the execution went from 4 to 5.5 years. One of the reasons for the first extension (for one year), was the difference in the execution time between the project authorized by the GEF’s CEO in his letter of endorsement (4 years) and the version signed by the Government (5 years), a situation that was discovered almost 4 years after the implementation of the project began.

The total budget of the project was USD 36.5 million, of which USD 4.5 million was placed by the GEF and the committed co-financing amounted to USD 32 million (cash and in kind) by the Government of Peru and UNDP.

The final evaluation was conducted between February and April 2021 by an international consultant. The methodology used is the one defined by UNDP/GEF in 2020 for its final evaluations and also incorporated the issues of gender and indigenous peoples.

As a result, 30 relevant actors were interviewed, including the project's executing team, officials from MINAM, MINEM, FONCODES, UNDP and other public services at the national level, technical advisors and the private sector involved.

Assessment rating table

the project ratings are shown in the following table.

Project dimension	*Rating*
Monitoring and evaluation (M&E)	
M&E Plan design at entry	Moderately Unsatisfactory
M&E Plan implementation	Moderately Satisfactory
Overall Quality if M&E	**Moderately Satisfactory**
Implementing agency (IA) Implementation & Executing Agency execution	
Quality of UNDP implementation / oversight	Moderately Satisfactory
Quality of implementing partner execution	Satisfactory
Overall quality of implementation/execution	**Moderately Satisfactory**
Assessment of outcomes	
Relevance	Highly Satisfactory
Effectiveness	Satisfactory
Efficiency	Satisfactory
Overall project outcome rating	**Satisfactory**
Sustainability	
Financial Sustainability	Moderately Likely
Socio-political Sustainability	Moderately Likely
Institutional framework and governance sustainability	Moderately Likely
Environmental sustainability	Likely
Overall Likelihood of sustainability	**Moderately likely**

Main Findings

Design (Prodoc)

The project document (Prodoc) lacked a clear definition of its scope, desired results and appropriate indicators to measure its progress and achievements. This lack of definition had its pros and cons, as it allowed great flexibility when facing the different NAMA options during the implementation of the project. Besides, there was a discrepancy between the Prodoc signed by the Government of Peru and the Letter of Endorsement of the CEO of the GEF, where in the first the duration and budget for the project are stipulated for 5 years, while in the second these were defined for 4 years, which aggravated the defects of the design, and led to confusion about the actual deadlines to implement the project.

The participation and structure proposed in the Prodoc was focused on actors from public entities at the centralized level, leaving little room for actors from the energy business sector and civil society. The governance bodies established in Prodoc do not include this type of broader actors, nor do they include the formation of technical committees to support the project's Board of Directors, which limits the project's influence on a broader level. The issue of gender was relegated to general statements, without establishing adequate goals or indicators to monitor this dimension, while the approach for indigenous peoples is non-existent in Prodoc.

Implementation

The start-up of the project had significant delays due to the difficulty of finding the right professional for the position of project coordinator. Once the project started, the executing unit found itself with a very different context to that projected during the project preparation phase, that is, there was an excess of energy production, the tenders for power generation have been frozen since 2016 and at the same time began a process of political and institutional instability that continues to this day, to which were added the restrictions imposed by the pandemic from March 2020.

On the other hand, the technical complexities and specificities associated with the execution of the different products of the project showed the lack of specialist consultants in the country, which resulted in several bidding processes had to be declared deserted and in other cases, the products delivered by the consultants did not meet the quality standards of the project.

Although there is evidence that UNDP clarified from the outset to the Government of Peru that the duration of the project was only 4 years, the national executing unit planned its activities for 5 years, thus complicating the implementation stage of the project, mainly during its second half, since at the theoretical end of 4 years of the project there was a remnant close to 38% of the GEF funds , so it was necessary to request the extension for one more year to fully implement the project.

The governance and participation mechanism implemented had a limited participation of government actors, civil society and business organizations in the Project Board of Directors (CDP) and no independent advisory committee was installed for this instance. Instead, various working groups and workshops were instituted to discuss issues specific to each NAMA and mitigation measure, and limited participation of the business sector, civil society organizations and regional and local authorities was maintained, so the main implementation strategy was centralized in Lima and in the DGEE-MINEM, as a way to speed up the implementation of the already delayed project.

On the other hand, there was successful coordination and cooperation with other IDB and GIZ initiatives to complement the actions promoted by the project.

It is worth mentioning that at the time of the final evaluation, almost 100% of the project budget has been executed, leaving only some contracts in operation, which had been affected by the pandemic. In addition, an exit strategy for the project was being discussed to support the achievements of the project, such as the implementation of the MRV in MINEM and its replication potential, the creation of the women's technical school (e-woman) and the elaboration of the technical regulation for charging stations for electric mobility.

Financial Management

At the time of the final evaluation, a remanent of approximately USD 30 thousand was found as of April 2021. The management arrangements between UNDP and MINEM to implement the procurement and product review processes had a positive impact on the efficiency and effectiveness of these processes (preparation of TDR and review of proposals made by MINEM's ad-hoc committees, and signing of contracts, supervision and disbursements made by UNDP). With regard to the co-financing by the GoP, this was USD 91.5 million which exceeded by almost 3 times the amount committed in the Prodoc.

M&E System

During the implementation, the executing unit of the project showed a good adaptive management, making precisions in the desired results and adjusting the scope, activities and NAMAs of the project in the initial stage of execution, but without changing the indicators or adjusting the goals. It also complied with all UNDP standard requirements for these cases, carrying out annual planning, with CDP meetings and reporting periodically to MINEM and UNDP on the progress of activities and products. It should also be mentioned that the Tracking Tools were elaborated for the start, midterm and completion of the project.

However, the risks of the project could have been better managed by both the executing unit and UNDP, which despite the fact that in 2017 the political-institutional risks had been identified and classified as "substantial", the MTR was done late between the 38th and 41st months of execution instead of the 24 months (or 30 months depending on the version of the signed project). UNDP could also have made use of other alternative tools such as follow-up visits (these are quick pre-

evaluations sometimes carried out by local UNDP M&E staff) to the project to identify improvements in project management or to advance the MTR to analyze the causes of implementation problems and have proposed measures to address them.

Other additional causes for the delay in the MTR were the problems in hiring the project coordinator and the executing team (April 2016), the poor implementation of project activities to 2017, the lack of adequate bidders to carry out the mid-term evaluation and the discrepancy found in the duration of the project, between the Prodoc signed by the GdP and the endorsement letter from the GEF CEO.

It is worth mentioning that the high political-institutional instability that the country suffered adversely, affected the progress of the project due to the recurrent changes of authorities at the presidential level and of ministries, together with the closure of the congress, limited or delayed the approval of the regulations promoted by the project, so that a high-level coordination strategy had little chance of success under these circumstances. Finally, the COVID-19's pandemic imposed restrictions on mobility and fieldwork, so the project had to adapt to the online contact modality with its partners and beneficiaries.

Achievement of Results

Undoubtedly, the project achieved its goal of supporting the government of Peru in the development and implementation of four NAMAs in the energy sector. The main results can be summarized as the strengthening of capacities of key ministries such as MINAM, MINEM, MTC and MEF in the preparation of GHG inventories, sectoral emission factors, mitigation scenarios, support in the development of several standards related to NAMAs, development of energy audits and in the design, identification, implementation and monitoring of NAMAs.

Related to the above, the project leaves installed a series of methodologies and tools so that the responsible agencies can fulfill their functions of collecting emissions data, reporting and implementing mitigation measures for the energy sector. In this regard, a relevant result is the MRV platform for NAMA installed in the MINEM.

It was also possible to implement - either partially or in full execution - the 4 NAMAs with 12 associated mitigation measures, in addition to a strong set of tools, methodologies, studies, regulatory proposals and technical regulations necessary for the full functioning of these NAMAs. It is worth mentioning that these NAMAs have greater scope and depth than those initially contemplated in Prodoc, so in this regard it exceeded initial expectations.

The formal approval of the MRV mechanism by MINAM and the CDP would be pending, as well as the regulations for charging stations for electric mobility, the approval of the law on distributed electricity generation and the incorporation of indicators related to climate change in the results-based budget program of the Ministry of Economy and Finance (MEF), in particular for the strategic programs "Access to Energy in rural areas" (EP0008), "environmental management priorities" (EP0009) and "Natural Resources for Integrated Management" (EP0022).

With regard to the project's CO2 emission reduction targets, estimates made by the MRV system, the TT and the PIR 2020 indicate that these have been exceeded. Direct CO2 reductions according to Prodoc should reach 960K ton in 10 years, but the project calculates reductions of 22K tons/year for NAMA#1 (photovoltaic systems), 7.9M of avoided lifetime emissions for NAMA #2 (EE), 959K tons avoided for life for NAMA #3 (electric mobility), while the avoided lifetime emissions for NAMA#4 would be 31.7M tons, with a cumulative 8M ton since 2010.

Indirect emissions have not been measured so far, but it is estimated that they would be much higher than direct emissions, so it is concluded that the project's emission reduction targets would have been exceeded.

Gender and indigenous peoples

NAMA's proposals include a gender analysis, but the activity that has aroused the most interest among the actors is the proposal of an energy school for women from rural sectors (e-woman), to train them in the installation, maintenance and repair of photovoltaic panels and improved kitchens, so that they can have an additional source of income for their homes, provide a service to their communities and support the sustainability of national programs regarding these technologies and their related mitigation measures.

Conclusions

Design

The project document presented significant shortcomings related mainly to the lack of definition of its scope, results and indicators for measuring achievements. However, this was also a strength since it granted sufficient flexibility so that the executing unit could specify the parameters of the project according to the reality found at the time of beginning its implementation. Another difficulty of the design was the too short estimate of the execution period (4 years instead of 5), which generated a problem of perception of delay in the execution of the project that was not so real, considering the complexity of the issues addressed.

Achievements

The information collected and the interviews indicate that the objective of supporting and strengthening the institutions to design and implement NAMA was achieved. The NAMA emission reduction target was also far exceeded, although - in the opinion of the evaluator - the real achievement in this regard is that it was possible to make visible the results of a series of mitigation actions that, without the application of the robust and verifiable methodology developed by the project, it would not have been possible to determine or disseminate.

On the other hand, the Project leaves a series of tools, procedures, studies and regulatory and technical proposals that will allow the responsible institutions to comply with their commitments of inventory reports and their updating. Thanks to this project, the identification, design and MRV process for present and future NAMAs was also systematized.

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Implementation

The project had delays in its implementation mainly due to the difficulty of installing a suitable executing unit, the belief of the project implementation unit that the execution deadlines began with the hiring of the project coordinator, the complexity of the topics addressed and its high learning curve, the low availability of specialized consultants in the country**,** the political and institutional instability and the restrictions imposed by the pandemic. The latter justified the 2 extensions of the project, so that its implementation period went from 4 to 5.5 years. To the above, it should be added the serious error for the execution period stipulated in the signed project document (5 instead of 4 established in the endorsement letter) that negatively impacted the implementation of the project due to erroneous planning from its inception.

The institutional arrangements implemented, and the centralized implementation modality involved limited participation of public, private and civil society actors that could more actively support the project's proposals and achievements.

Financial management

The financial resources of the project were effectively and efficiently executed in accordance with UNDP standards. There is a remnant of the project's funds which reached approximately USD 30 thousand as of April 19, 2021. With regard to co-financing, the amounts committed in the project document have been exceeded.

Relevance and ownership

The project is part of a series of voluntary commitments by the country to reduce GHG emissions and efforts to diversify its energy matrix. It is also in line with FISE's Universal Energy Access program and with the obligations to report inventories and their updates to the UNFCCC secretariat, making the project relevant to the country, UNDP and the GEF. With regard to stakeholder participation, this was the first time that the Ministry of Finance had participated in the Steering Committee of a GEF/UNDP project, but it would have been desirable for participation in this instance to have also been extended to other actors such as the MTC and citizen and business organizations.

The appropriation of the results of the project by the relevant actors has been mixed, with some institutions such as MINEM and MINAM that have assumed the methodologies for inventories and NAMA, as well as the continuity of the MRV. On the other hand, the regulatory reforms are pre-published for a couple of years and have not been yet approved, where proposals such as the law on distributed electricity generation and the promotion of electric transport have little chances to be enacted. These key reforms would allow, respectively, a greater participation of solar energy in the electricity market and the introduction of electric mobility.

Sustainability

This aspect presents challenges, the most important being those related to the country's unstable institutions and the continuous rotation of directors and professionals from government agencies. At the same time, the sectoral culture of these institutions complicates the actions of cooperation and coordination between them.

On the other hand, the availability of resources to maintain some NAMAs, such as those for transport and energy efficiency, is also a challenge: while the former obtains its majority funding from interested companies and international cooperation agencies, the latter depends on state resources, where the corresponding legislation on the obligation to carry out Energy Efficiency audits in the public sector has not been fully complied .

Recommendations

Rec #	***Recommendation of the final evaluation***	***Responsible Entity***	***Implementation period***
A.1	Although the project is operationally closed, there are still steps that need to be made to ensure the continuity of the project's achievements, so it is recommended that UNDP lead discussions with the different actors to reach agreements that constitute an exit strategy for the project.	UNDP, MINEM, MINAM	June-October, 2021
A2	The exit strategy should be drawn up in conjunction with the key actors of the project (MINAM, MINEM, MEF, MTC, ATU, and MIS to name a few) with UNDP as a sponsor and high-level manager of the corresponding institutions. This strategy should essentially contain programmatic agreements that ensure the continuity and realization of the topics set out in A.2.1 onwards.	UNDP, MINEM, MINAM	June-October, 2021
A2.1	Define a budget scheme, assignment of professionals and operating structure of the MINEM MRV platform, indicating responsibilities and roles of each participating management.	UNDP, DGEE-MINEM	June-October 2021

Rec #	*Recommendation of the final evaluation*	*Responsible Entity*	*Implementation period*
A2.2	Finalization of the Technical Regulation on Charging Stations for Electric Mobility	MINEM	June-October 2021
A2.3	Define, together with the responsible directorates and relevant actors of the MINEM, beneficiaries and supplier companies, a working group to implement the changes in the payment scheme of the rural electrification program. This working group must have a clear and specific mandate, a detailed work plan, defined time and responsible for the execution of each aspect of it.	DGEE-MINEM	June-October 2021
A2.4	Create a working group with the same characteristics as the previous one, to clear the disagreements in the law of distributed generation, in order to allow a greater participation of solar energy, based on the project proposal or another available.	DGEE-MINEM, DGE-MINEM, OSINOGERMIN	June-October 2021
A2.5	Define an inter-institutional governance scheme between operators, MTC, MINAM, MEF, ATU to continue the electric bus pilot project together with TransPeru and establish specific working groups (with deadlines, responsible for results and specific proposals) multi-actors to determine: i) standard bus models, ii) business model of electric/hybrid transport; iii) regulatory and regulatory adjustments based on the project's proposal on the promotion of electric transport or other available ones. To facilitate this recommendation, it is suggested that the project executing team first share with the actors all the studies and consultancies carried out under NAMA #3 for the promotion of electric transport, which would easy the installation of the upcomming GEF-7 new mobility project.	MTC, MEF, MINAM, ATU	June-October 2021
A2.6	Define an inter-institutional working group and with regional and local authorities, relevant beneficiary community organizations, to agree on how the women's technical school is implemented.	MIDIS, DGEE-MINEM	June-October 2021
A2.7	Establish a pilot working group with selected regions to test an institutional coordination and strengthening mechanism to develop decentralized GHG inventories in the energy sector.	MINAM-MINEM	June-October 2021
A2.8	Organize a final online closing event of the project, with the participation of national, regional, municipal authorities and relevant social organizations, to report on the results of the project and the working groups that will project these achievements into the future. This event could be divided into a national one (Lima) and others in 2-3 selected regions.	DGEE-MINEM, UNDP	June-October 2021
A.3	For new projects, it is recommended that UNDP ensure consistency between the documents approved by the GEF CEO and those signed by the country, in order to avoid misunderstandings during the implementation of the project, and to provide initial advice to the project coordinators on the GEF criteria for accounting for deadlines and M&E for example.	UNDP	Permanent
A.4	For complex projects which need to specify their scope and indicators, as well as to collect the necessary information to report the indicators, it is recommended to integrate a specialized professional into the project teams, in order to organize the type and amount of information necessary to adequately monitor the implementation of the projects.	UNDP	Permanent
A.5	New projects should include the proper time for the executing units to settle within the institution that hosts them, so as to have a more realistic execution period than what currently exists, which is to think that a project begins with the signature of Prodoc.	UNDP	Permanent

Main lessons learned.

The design of any project should contain room for flexibility, so that implementers can make the necessary adjustments to their results, indicators and goals. This flexibility should not be at the expense of imprecise, difficult-to-understand, prone to interpretations and ultimately difficult to measure statements of results and indicators. In the case of this project, there was an effort to understand and specify the key terms, but that might not be the other project's case, and it could lead to implementation without much direction or meaning.

The implementation of this project revealed the problem of elaborating a project that does not consider timeframe for the installation of the executing unit within the institution that hosts it. Not including these times leads to misperceptions about the performance of the national executing agencies (a "false positive" result for the late-execution test), in addition to adding unnecessary stress to generate products, missing the goal of obtaining results.

The finding of the existence of 2 official versions with different deadlines and disbursements for the same project was an unusual situation, but it had the consequence that the planning and execution of the project activities were carried out based on erroneous timeframe and deadlines that generated confusion and frustration in the executing unit, revealing that misscommunication existed between UNDP and the executing agency that prevented to solve this issue.

The current pandemic situation suggests that in the design of new projects in the future would include an exercise for identifying and evaluating the types of risks that could apparently have a very low probability, but a significant impact on the execution of any project. At the very least, doing this type of exercise could allow the identification of key mitigation measures that could give an indication of how to deal with types of catastrophic situations such as the current ones.

The delegation of most procurement processes to the executing agency proved to be an effective practice for the more expeditious implementation of project activities and would be advisable to do so when possible, following an assessment of the capacities of the executing unit and its experience in UNDP standards.

Reports are a fundamental tool to understand the relationship between them and project document. Changing the order of the results in the progress reports and in the communications material used by the projects, produces a confusion to those who read these materials that makes it difficult to really understand what is being developed, so the executing units should maintain a consistency between the different documents.

1. Introduction

1.1. Purpose and scope of the evaluation

This consultancy corresponds to the Final Evaluation of the full-sized GEF project entitled "Nationally Appropriate Mitigation Actions in the Energy Generation and End-Use Sectors of Peru" (hereinafter NAMA project), requested by the country office of the United Nations Development Programme (UNDP), which acts as the implementing agency of the Global Environment Facility (GEF), while the Ministry of Energy and Mines (MINEM) is the national executing entity and responsible for the project.

The final evaluation covers the regular aspects to be evaluated in a GEF project, i.e., its design (indicators, intervention logic, stakeholder consultations, etc.), execution (financial aspects, M&E, reports, etc.), integration with other development activities (government priorities, UNDP country program), sustainability and achievement of the desired results of the project.

Correspondingly, based on the evaluation it is desired to: (i) draw the conclusions, recommendations and lessons learned from the project implementation and verify its achievements; and (ii) draw conclusions, recommendations and lessons from the tools and practices used to support the country in its GHG reductions.

In addition, the final evaluation aims to promote responsibility, accountability and transparency; Identify good practices and lessons learned that could be useful in improving the sustainability of project benefits and assist in the overall improvement of UNDP programming and contribute to the overall assessment of the achievement of GEF strategic objectives aimed at the benefit of the global environment.

This evaluation analyzes and weights the criteria of relevance, effectiveness, efficiency, sustainability and probability of impact, using the rating table established in the evaluation methodology of UNDP-GEF projects.

The evaluation included the review of activities implemented by the project from October 15, 2015 (as per PRODOC signature by the GoP) to March 30, 2021 (including two project extensions).

Finally, the final evaluation took place between February 15 and April 29, 2021.

1.2. Work Plan

The evaluation had five stages that can be clearly distinguished:

Stage 1 (February 2021): an evaluator's induction meeting with UNDP and the project executing team, where the main scope of the evaluation and the dates of the main milestones and deliverables are discussed. On this occasion, the main stages of project implementation and its challenges were also discussed in general terms.

Stage 2 (February 2021): Receipt and review of documentation by UNDP and the project executing team. At this stage, the final methodology and the sample of actors for the interviews were defined. This stage included the report of the beginning of the final evaluation and the final agenda of interviews to be carried out.

Stage 3 (8-31 March 2021): Round of interviews, starting with an in-depth discussion with UNDP and project officials (approx. two days of design analysis, indicators, mid-term evaluation and progress by product, project closure, etc.). They then began interviewing the different actors, according to the topics included in the evaluation matrix.

Stage 4 (1-9 April 2021): Preparation of the draft report of the final evaluation followed by a round of comments and adjustments of the text to deliver the final version of the report.

Stage 5 (10-23 April 2021): Preparation of the final report of the evaluation considering the comments received and adjustments of the text to deliver the final version of the report.

Stage 6 (23-29 April 2021): Translation of the report into English.

1.3. Methodology used.

According to the ToR of the consultancy, the final evaluation seeks to verify whether the expected results of the project were achieved, as established in its logical framework. It is worth mentioning that, although the project had a Mid-Term Evaluation (EMT) in March 2019, the scope, activities and objectives of the final evaluation are "self-contained", that is, this evaluation is carried out in a comprehensively way and considering the changes introduced by previous evaluations and the response delivered by the NAMA project to the changes proposed in them.

The overall objective of the evaluation is to assess the project design and its implementation, in terms of relevance, effectiveness, efficiency, sustainability and probability of impact, and to contrast the expected results in the Project Document (PRODOC) with those actually achieved. Adaptive management - changes introduced to the project - is part of this analysis and is developed in the corresponding section of the report.

The specific objectives of the evaluation are as follows:

1. Assess the relevance of the original project design;
2. Analyze and evaluate the relevance, effectiveness, efficiency and sustainability of results;
3. Identify the adaptive management strategies implemented by the project to adapt the project intervention to changes in the national context;
4. Evaluate the elements that could lead to the replicability and scalability of the project results;
5. Document and feedback lessons learned;
6. Document the institutionalization of the processes driven by the project;
7. Assess the role and contributions of the partners and their influence on the achievement of the objectives.

The methodology used is that contained in the UNDP Independent Evaluation Office document "Guide to conducting final evaluations of UNDP-supported and GEF-funded projects", published in 2020. [1]

The methodology is based on results and Theory of Change, where it is intended to obtain a direct relationship between inputs, outputs and results obtained, in addition to identifying the contribution of the intervention in the improvement of the systems intervened, whether in environmental, financial, regulatory and control terms, strengthening, etc. The ToR expect the Evaluation process to follow a participatory and consultative approach that ensures close collaboration with the project team, government counterparts (the GEF operational focal point), implementing partners, UNDP country offices, the regional technical adviser, direct beneficiaries and other stakeholders.

As a result of the above, all those involved in the process were able to deliver their views on the design and execution of the project, as well as identify areas for improvement. The criteria used to guide the interviews can be found in the evaluation question matrix (Annex 3) and in the interview schedule (Annex 5).

[1] http://web.undp.org/evaluation/guideline/documents/GEF/TE_GuidanceforUNDP-supportedGEF-financedProjects.pdf

Specific questions were also included to verify how the project incorporated - both in its design and implementation - the issues of inclusion of gender, human rights, marginalized groups and indigenous Peoples in accordance with UNDP guidelines.

Additionally, the different stages of the project were analyzed, as well as financial and adaptive management, use of M&E tools, the planning process using an analysis that can be found in detail in Annex 3, which integrates all dimensions of the project.

For the analysis of the achievement of results, a matrix was prepared with the indicators and final goals of the project, and they were evaluated in accordance with the UNDP's final evaluation guide, in the format shown in Table No. 1.

Table 1: Valuation matrix for the achievement of results.

Goal/Objective/ result	indicator	Baseline	Final Project Target (PRODOC)	Target status during evaluation	Final evaluation comments	Rating for achievements
Objective:						
Result 1						
Result 2						
Result 3						
Result 4						

The criteria of relevance, efficiency, effectiveness and sustainability were determined according to the scale developed by the UNDP methodology, which is shown in Table No. 2. The concepts associated with each scale can be found in Annex 1.

Table 2: Overall assessment of the project and its criteria

Criteria	Comments	
Monitoring and Evaluation: Highly Satisfactory (HS), Satisfactory (S), Moderately Satisfactory (MS), Moderately Unsatisfactory (MU), Unsatisfactory (U), Highly unsatisfactory (HU)		
Overall M&E Quality	(qualify with a 6-point scale)	(Description of achievements)
M&E design at entry	(qualify with a 6-point scale)	(Description of achievements)
Execution of the M&E plan	(qualify with a 6-point scale)	(Description of achievements)
Implementation of the Implementing Agency and the Executing Agency: Highly Satisfactory (HS), Satisfactory (S), Moderately Satisfactory (MS), Moderately Unsatisfactory (MU), Unsatisfactory (U), Highly Unsatisfactory (HU)		
Overall quality of project implementation and execution	(qualify with a 6-point scale)	(Description of achievements)
Implementation Agency Implementation	(qualify with a 6-point scale)	(Description of achievements)
Implementation of the Executing Agency	(qualify with a 6-point scale)	(Description of achievements)
Results: Highly Satisfactory (HS), Satisfactory (S), Moderately Satisfactory (MS), Moderately Unsatisfactory (MU), Unsatisfactory (U), Highly unsatisfactory (HU)		
Overall quality of project results	(qualify with a 6-point scale)	(Description of achievements)
Relevance: Relevant (R) or Not Relevant (NR)	(qualify with a 6-point scale)	(Description of achievements)
Effectiveness	(qualify with a 6-point scale)	(Description of achievements)
Efficiency	(qualify with a 6-point scale)	(Description of achievements)
Sustainability: Likely (L), Moderately Likely (ML), Moderately Unlikely (MU), Unlikely (UL)		
Overall probability of sustainability risks	(qualify with a 4-point scale)	(Description of achievements)
Financial resources	(qualify with a 4-point scale)	(Description of achievements)
Socioeconomic	(qualify with a 4-point scale)	(Description of achievements)
Institutional framework and governance	(qualify with a 4-point scale)	(Description of achievements

Criteria	Comments	
Environmental	(qualify with a 4-point scale)	(Description of achievements)
Impact: Considerable (C), Minimum (M), Negligible (N)		
Overall results of the project	(qualify with a 6-point scale)	(Description of achievements)

Methods and procedures for collecting and analyzing information.

The type of information that is analyzed corresponds to the common practice for this type of evaluations:

1. The one delivered by the project team (reports, studies carried out, interviews, among others);
2. Contextual information (policies and government plans, institutional programs, studies carried out on the topics of interest of the project, among others);
3. Information integrated with other activities and policies (similar complementary projects under implementation, UNDP and government policies, municipal plans, budgets of organizations, municipalities and ministries);
4. Baseline and status information regarding the project.
5. Reports and studies from other independent entities that served as a means of triangulation.

The methods for collecting the information are described below:

Documentary review: analysis of the project document, as well as of the project progress reports and other publications derived from the project activities (consultancies, baseline studies, technical publications, media publications, etc.). Annex 4 provides an overview of the scope of the preliminary documentation requested from the project team and UNDP.

Interviews with key informants: interviews were conducted with the UNDP project team, government officials involved in the project, participating NGOs, municipalities and community organizations, among others. To this end, a series of open and semi-structured questions was prepared and asked of the interviewees.

Interviews in focus groups: because the project includes groups of key actors, it was a case of conducting interviews by group (members of e-Women), however, this type of interview could not be carried out.

Due to the current situation arising from the COVID-19 pandemic, the interviews were conducted online or by telephone, so there was no possibility of field visits to a sample of pilot projects.

For the analysis of the information collected, the triangulation or crossing of information was used in order to verify key situations of the context of project execution, with that information provided in the interviews and progress reports and other publications, so that the conclusions obtained are balanced and as objective as possible to avoid the bias of the informants.

Interviews with key project actors provided alternative information and views to those provided by the project team and UNDP. These interviews were conducted with as many actors as possible with the aim of partially compensating for the subjectivities and bias of the informant. The opinions expressed by the informants were contrasted with other sources of information, such as reports from other institutions, background information and differences found with other informants. It should be mentioned that the interviews conducted (individual and group) were of a confidential nature and were not attended by project staff or UNDP, in order to protect the confidentiality of the source.

To visualize the adaptive management of the project, PRODOC and its assumptions, risks, indicators, results, etc., were contrasted with the actual progress of the project and with the strategies developed to face the changing context of the country, in order to verify that the necessary

adjustments have been made to be able to meet the objectives and expected results of the project. This same exercise was carried out to determine the relevance and participation of actors.

A detail of the evaluation questions used in this process can be found in Annex 3.

Criteria for sampling actors and project sites

The project includes a variety of actors related to transportation, energy efficiency and regulations. Annex 5 shows the actors interviewed during the round of virtual interviews and whose number reached 30 people, covering 19 public and private institutions, among which was the project executing team, officials from MINEM, UNDP, MINAM, FONCODES, GIZ and private companies such as Engie, ENEL and ByD, which are mainly related to electric transport.

The main criterion for selecting the informants was their degree of authority and involvement with respect to each specific topic addressed by the project, whether as division heads, technical officers, partners of private sector companies, experts from academia and consultants who have advised the activities, executing partners at the field level and beneficiary organizations. All these testimonies provided an overview of the level and approach of implementation of the various project activities, whether at the national, regional and local levels.

Finally, the selection of interviewees also covered different locations, such as Lima as the execution and decision-making center of the national actors involved in the project, as well as actors in Puno and Arequipa to interview project beneficiaries and local executors.

Gender Inclusion, Human Rights, Indigenous Peoples and Marginalized Groups

Evaluation questions and interviews included specific issues affecting women, indigenous peoples and other marginalized groups benefiting from the project. The analysis was not limited to the number of these actors involved in the project activities, but also focused on how to respond to specific issues that can be addressed within the framework of the project and on the development of a strategy and planning for this group of actors. In addition, it was analyzed whether the project developed a specific approach for these groups and whether the necessary information was collected to follow up on the activities planned to address these issues.

Financial analysis

The financial analysis was based on the expenditure and co-financing figures provided by the project team, contained in the annual CDRs and on the UNDP's ATLAS information for October 2015-March 2021. This exercise attempted to capture general aspects of budget implementation, such as the weight of project staff expenditure within the total budget, the evolution of expenditure by year and by product, expenditure on consultants, etc. The annual audits were also reviewed, and UNDP procurement standards were verified to have been complied with through interviews with UNDP and project procurement staff, along with the review of some major procurement.

The matrix of evaluation questions (Annex 3) presents an approximation of the type of information to be reviewed and its sources.

Ethics

The evaluator signed a code of conduct upon acceptance of the assignment, and the evaluation was conducted in accordance with the principles outlined in the United Nations Evaluation Group (UNEG) "Ethical Guidelines for Evaluations"[2]. Interviews were carried out in a way that the evaluator did not include questions or comments that would lead to a biased responses and interviewees were

[2] https://www.unodc.org/documents/evaluation/Guidelines/UNEG_Ethical_Guidelines_for_Evaluation_2020.pdf

given a guaranty that all their statements would be keep confidential, and that no specific quotations in the evaluation report would appear in order to uphold this confidentiality.

Strengths and limitations of the methodology

One of the main limitations for this evaluation, due to the COVID-19 pandemic, is the impossibility of conducting field visits to directly observe the achievements of the project and interview face-to-face all relevant actors. In addition, because rural beneficiary communities generally have limited internet access, not all the desired interviews were conducted, such as with e-woman program participants.

On the other hand, because many testimonies are qualitative and subjective, there is a risk of "informant bias" that could distort the reality of the project.

To mitigate these risks, a large number of people with different roles within the project were interviewed, whether they are part of its management, collaborators, complementary partners or final beneficiaries. The testimonies were also confronted with secondary information such as, for example, publications in various media, studies carried out in the electricity sector and project reports, etc. It was possible to triangulate the information from the different sources consulted, which allowed to reduce the bias of the informant and at the same time ensured a representative number of actors.

For gender issues and indigenous groups, specific questions were asked about: (i) how the project addressed these dimensions; (ii) whether these groups' own demands were collected into the project; and (iii) whether there were specific activities for them and whether gender-specific information was collected.

The evaluator decided not to develop online questionnaires, because in his experience it can be seen that, in general, the response ratio is relatively low (about 20%) and probably these questionnaires would be answered only by those with stable internet access.

1.4. Structure of the evaluation report

The present report has five sections. Its ***cover shows the general information*** of the project (amounts, identification codes, implementing and executing agencies, deadlines, etc.), followed by an ***Executive Summary*** where the reader may find a summary of the project, the main findings, recommendations and conclusions, in addition to the general qualification of the project and a list of abbreviations used in this report.

In Section 1: Introduction, the scope and objectives of the evaluation can be found, as well as a detail of the methodology used and the main milestones of this work.

Later, ***Section 2 focuses on the analysis of the country's development context*** regarding the problem to be addressed and how to approach it, detailing the expected deadlines for the implementation of the project, its global and development objectives, the expected results and key indicators, as well as the coordination and partnership arrangements with key actors involved.

Section ***3 shows the findings*** of the evaluation, which cover the ***design, execution*** (financial and performance), the results ***obtained*** and their sustainability***.*** At the end of this section the ***project ratings*** can be found.

Section 4 shows all conclusions, recommendations and lessons learned. Finally, ***Section 5 corresponds to annexes (9),*** which include - among others - the consultancy's TORs (Annex 1), the logical framework matrix of the project (Annex 2), the matrix of evaluation questions (Annex 3), the list of documents reviewed (Annex 4), the persons interviewed and the interview schedule (Annex 5), the evaluation trail (Annex 6) and the analysis of the indicators (Annex 9).

2. Project description and development context

2.1. Start and duration of the project.

The project was GEF CEO endorsed on April 2014 and DOA (delegation of authority) issued in December 2014, and the PRODOC approved by UNDP was finally signed by the GoP on October 15, 2015. According this last document, the NAMA project would last for 59 months; that is, it would end on September 19, 2020. The execution would be the national execution modality (NIM) where the MINEM would be the national executor, while UNDP is the implementing agency of the GEF. Due to situations of a political nature and the complexity of the issue to be addressed, the project coordinator was hired in April 2016 (6 months after the signing of Prodoc).

However, there was a discrepancy between the Prodoc signed by the Government of Peru and the Letter of Endorsement from the CEO of the GEF, where in the former a duration and a budget for the project are stipulated for almost 5 years, while in the latter these were defined for 4 years.

Although there are a number of documents from UNDP and the project executing unit indicating that the duration of the project was 4 years[3], there is no clear explanation as to why the GdP planning system for the project was carried out for 5 years. Possibly the high turnover of ministers and GdP officials attacked the transmission and updating of information, since the official government programming was maintained in 5 years according to the documentation reviewed by the evaluator[4].

This difference was discovered by the executing unit of the project only after almost 4 years of implementation and had an impact on the planning of its activities in the second half of implementation, having to request an extension for 12 months (from October 2019 to October 2020) in order to complete the planned and executed activities[5].

Subsequently, due to the problems arising from the pandemic, a second extension of the project was approved for 6 more months (October 2020 to April 2021) to complete some studies and pilots, which meant that the project would end its activities in April 2021, that is 5.5 years of execution instead of the 4 years stipulated in the Endorsement Letter of the CEO of the GEF[6].

2.2. Issues the project sought to address.

At the time of project development, Peru had already begun to implement a series of GHG mitigation actions in the energy sector, but they lacked a systematic methodology for determining and monitoring GHG emission reductions and were not institutionally coordinated. In addition, there was also a need to develop regulations that included incentives that would allow the growth of NCRE in the energy generation and use matrix.

It is worth mentioning that the country had made voluntary commitments to the United Nations Framework Convention on Climate Change (UNFCCC) to promote and implement low-GHG

[3] Indeed, the "PAC Act" of July 7 2014 between UNDP, the Peruvian Agency for International Cooperation (APCI) and the Director of the General Directorate of Energy Efficiency of minem indicates that the project was 4 years, which is also stipulated in the report of the Workshop of Initiation of the Project elaboado by the executing unit of the project.

[4] Memorandum No. 011-2017-C-UNDP 77699 with the project file of the Peruvian Agency for International Cooperation (APCI).

[5] PROJECT EXTENSION REQUEST FORM 06-01-2020

[6] Office 0199-2020 MINEM/DGEE, July 10, 2020

development, setting as a goal that by 2021 - 40% of the energy consumed would be sourced from NCRE and hydroelectricity[7].

2.3. Project description

Therefore, it was sought that the project would support the country in the identification, prioritization and implementation of ongoing mitigation actions and in planning, in such a way they would be recognized as NAMA that would include a standardized methodology of elaboration and implementation that would allow to measure the expected reductions.

To achieve these objectives, the project established that the subsectors with the greatest possibility of GHG reduction would be those of electricity generation based on NCRE -connected and not connected to the grid-, together with the end uses of energy (specifically energy efficiency actions).

At the time of beginning the implementation of the project, there were a series of rules and regulations for the energy sector in the country, where some stand out, such as the "Law on the promotion of investment in renewable energy generation" (D.L.N°1002, 2008) with its regulations that established bidding processes with priorities and incentives for renewable energies; the "Law on the Promotion of the Efficient Use of Energy" (Law No. 27345 of September 2000), whose regulations promote the culture of energy efficiency and establish sectoral programs for this purpose; the "Law on the Promotion of Biofuels" (Law No. 28054, in 2003), which establishes the legal basis for the production and marketing of biofuels and their incorporation into the composition of gasoline and the "Plan for Universal Access to Energy - 2013-2022" (R.M. 203-2013-MEM-DM, May 2013), which promotes the population's access to electricity, lighting, communication and community services, and access to technology and fuels for heating and cooking. This Plan is implemented through the resources of the Energy Social Inclusion Fund (FISE) and the "National Rural Electrification Plan 2013-2022".

It should also be mentioned that the "General Law on Rural Electrification" (Law No. 28749) and the Law establishing the "Energy Security System for Hydrocarbons and the Energy Social Inclusion Fund" (Law No. 29852) and its regulations constitute a fundamental part of the country's energy regulatory framework.

Therefore, the country's voluntary commitments could be transformed into well-structured and feasible NAMAs, which would be based mainly on actions that were already under implementation, such as the electrification of rural sector housing and the implementation of solar-powered kitchens and the application of new rules for bidding for energy suppliers to the grid with incentives that make these NCRE competitive.

2.4. Immediate and development objectives of the project

The Objective of the Project is "To support the Government of Peru in the development and implementation of appropriate national mitigation actions in the energy sector", so that it contributes to achieving the goal of having at least 40% of the energy consumed in the country come from NCRE and large hydroelectric plants[8].

It also wanted to contribute to the strengthening of institutions in terms of inter- and intra-sectoral coordination and increase in technical and management capacities of the public sector to generate national and regional GHG inventories, identify, prioritize, implement and follow up on NAMAs to

[7] Carta 055-2011-DVMDERN/MINAM, 25 de Julio 2011 a la Secretaría de la Convención Marco sobre Cambio Climático

[8] Carta Nº055-2011 del Gobierno de Perú a la Secretaría de la CMNUCC, donde se espera reducir en 28% las emisiones de GEI del sector energía (approx. 7MT CO_2 eq) respecto del año 2000.

be implemented in the future. The project was also intended to support the creation of an institutional and regulatory framework that promotes the reduction of GHG emissions, along with creating the conditions for an accurate and reliable MRV system[9].

In terms of GHG emission reductions, the project established direct and indirect reductions of 960,000 and 1,600,000 ton of CO_2 during the 4 years of implementation. 2.4

2.5. Expected results.

To achieve the objectives of the project, 4 outcomes were defined and the realization of 34 activities and/or products that are part of its logical framework, which are shown in Table No. 3 below.

Table 3: Components and products to be achieved established in Prodoc.

No.	Desired Result/product/activity
1	***Baseline of GHG emissions at national and regional reference level (BAU) for the established energy sector.***
1.1	National and subnational GHG inventory system for the energy sector, integrated with the InformaGEI platform, established and operational.
1.2	National and subnational GHG inventories for the energy sector established.
1.3	Baseline of national and regional GHG emissions in the established energy generation and end-use sectors and subsectors.
1.4	Network Emission Factors established
1.5	System's periodic update
1.6	Standardized baseline for unconnected grid power generation
2	***Prioritized mitigation actions and MACCs identified (Marginal Reduction Cost Curve) and 4 NAMAs prepared for implementation.***
2.1	NAMA Quick Selection Methodology
2.2	Detailed NAMA Selection Methodology
2.3	List of prioritized NAMAs
2.4	4 NAMAs ready for implementation (rural electrification)
2.5	Developed and published the marginal cost curves of emission reduction of mitigation actions
2.6	Factsheets for potential NAMAs
2.7	Identified and prioritized mitigation options for NAMAs development and implementation
2.8	Comprehensive barrier analysis for identified mitigation options
2.9	Comprehensive analysis of sustainable development and resilience to climate impact (co-benefits) for identified mitigation options
2.10	Fully capable and qualified entities for the design and implementation of emission mitigation programs
2.11	National voluntary emission reduction targets for selected NAMAs established and validated.
2.12	NAMAs' entity defined
2.13	NAMAs designed for the application of mitigation measures
3	***Implementation of NAMAs in selected subsectors***
3.1	National action plan for the implementation of prioritized NAMAs

[9] Prodoc, pág.24.

No.	Desired Result/product/activity
3.2	Operational dialogue on multisectoral policies, as well as potential instruments for the implementation of prioritized NAMAs established
3.3	Measures at the international level deemed necessary to avoid future economic crises (financial model) for each NAMA
3.4	Established an operational institutional arrangement and installation of NAMAs
3.5	Public/private partnerships for the implementation of established prioritized NAMAs.
3.6	Mechanisms established and operational for the implementation of NAMAs prioritized for selected subsectors.
3.7	Pilot project of NAMAs in the sub-sectors executed
3.8	Lessons learned from the design and pilot of prioritized NAMAs are analyzed, published and disseminated
4	***Precise mechanism for measuring and accounting for actual GHG emission reductions from mitigation actions in the power generation and end-use sector.***
4.1	Coordination mechanism established and operational between the MEF, MINAM and MEM, integrated into the InformaGEI for the reduction of emissions in the energy sector
4.2	Key monitoring parameters (quantitative and qualitative) of the selected NAMAs defined, with emphasis on the reduction of GHG emissions and co-benefits for sustainable development.
4.3	MRV Systems for selected NAMAs designed, including institutional agreements, MRV committees, and monitoring plans
4.4	MRV systems of selected NAMAs designed and implemented, including institutional agreements and monitoring plans.
4.5	National guidelines of MRV and methodological statistics developed for the selected NAMAs
4.6	Climate change indicators incorporated in Budget based on Budget Results of the Ministry of Economy and Finance.
4.7	A national registration mechanism for mitigation actions established and operational.

2.6. Project indicators

The project contains a portfolio of key indicators in the results framework, which are shown in Table No. 4, just as they presented in the Prodoc. As it will be discussed in Section 3.1.2 of this report, these indicators do not meet the SMART criterion because they are very general, some are product-related, and some cannot be reliably measured. A detailed analysis of the indicators can be found in Annex 9.

Table No. *4: Main NAMA's project indicators*

Strategy		Indicators	
O	***Objective:*** Support the Government of Peru in the development and implementation of appropriate national mitigation actions in the energy sector	O.1	Evolution of baseline emissions
		O.2	NAMA's portfolio in the power generation and end-use sectors
		O.3	Implementation of at least two connected and non-grid renewable power generation NAMAs.
		O.4	Implementation of at least two energy efficiency NAMAs. (end use of energy).
		O.5	Creation and operation of MRV protocols
		O.6	Generation of non-conventional renewable energy connected and not connected to the National Grid.

Strategy		Indicators	
		O.7	Direct and indirect GHG emissions resulting from the project
Results			
1	*Baseline of GHG emissions at national and regional reference level (BAU) for the established energy sector.*	1.1	A GHG inventory procedure validated by the relevant energy entities and consistent with INFOCARBONO and the National Energy Balance.
		1.2	A final report of a GHG inventory based on the approved procedure divided by subsector developed during the year 2017
		1.3	BAU systematized and publicly available baseline reports for selected subsectors during 2014 and for a period not less than 2013 to 2021.
2	*Prioritized mitigation actions and identified MACCs, documents for NAMAs in the selected subsectors designed, and 4 NAMAs prepared for implementation.*	2.1	1 sectoral MAC curve and 2 sub-sectoral MAC curves
		2.2	NAMA portfolio of activities and fact sheets
		2.3	Policy and funding instruments for NAMA implementation in two defined selected subsectors
		2.4	3 formal training sessions by subsector, in relation to the design of mitigation programs.
		2.5	Detailed design of 4 NAMAs
3	*(i) Entities related to grid-connected renewable energy (all technologies excluding large hydropower); (ii) off-grid renewable energy subsectors and (iii) energy end-use related to energy efficiency that will contribute to achieving compliance with Peru's iNDC.*	3.1	Execution of NAMA activity #1 (off-grid renewable energy with photovoltaic panels)
		3.2	Implementation of the base of the off-grid Payment System with photovoltaic systems.
		3.3	Implementation of NAMA activity #2 (renewable energy and/or energy efficiency)
		3.4	Implementation of NAMA #3 (grid-connected renewable energy and/or energy efficiency)
		3.5	Implementation of NAMA #4 activity (grid-connected renewable energy)
		3.6	Implementation of MRV protocols and monitoring of NAMA-related GHG emission reductions
4	*Precise mechanism for measuring and accounting for actual GHG emission reductions from mitigation actions in the power generation and end-use sector.*	4.1	MMR protocol designed
		4.2	Application of the energy sector of the MRV register
		4.3	Integration of climate change mitigation into the results-based budget program of the Ministry of Economy and Finance.
		4.4	Application of MRV procedures

2.7. Main stakeholders

Although the main recipients of the project are MINAM and MINEM, there are a number of public and private bodies that are important when implementing the different NAMAs or that are involved in developing policies and incentives for NCRE in the country. Table No. 5 shows a detail of the main actors and their roles in the Project.

Table No. 5: Main actors involved.

No.	Entity	Sector	Role in project
1	MINAM	public	GEF Focal Point, responsible for GHG inventories and INFORMAGEI, policy maker and environmental monitoring
2	MINEM-DGEE	public	National implementer through its DGEE, energy policy-making, overseer of energy companies
3	Osinergmin	public	Supervisory Body for Investment in Energy and Mining, a public institution responsible for regulating and supervising that companies in the electricity, hydrocarbons and mining sectors comply with the legal provisions of the activities they carry out.
4	MINEM-DGER	public	Implementer of rural electrification policies and programs.
5	MIDIS-Foncodes	public	Implementer of the massive program of improved kitchens.
6	COES	private	Provides detailed electrical system information. It is made up of all SEIN Agents (Generators, Transmitters, Distributors and Free Users) and its decisions are mandatory by the Agents. Its purpose is to coordinate the short, medium and long-term operation of the SEIN at minimum cost, preserving the security of the system, the best use of energy resources, as well as planning the development of the transmission of the SEIN and managing the Short-Term Market.
7	INDECOPI	public	Specialized public body attached to the Presidency of the Council of Ministers. Promotes rules of fair and free competition between the agents of the Peruvian economy,
8	Min. Transport (MTC)	public	Electrification of public transport. Technical regulatory authority at national level. It exercises environmental authority in the transport sector. Responsible for implementing actions within the framework of the national environmental management system to promote the sustainable development of activities and projects of infrastructure and transport services.
9	Ministry of Economy and Finance (MEF)	public	Member of the CDP. It defines the national budget, allocates public resources for actions to mitigate and adapt to climate change and promotes that the available resources are oriented to achieve the expected results. It is also in charge of the Public Procurement and Customs System.
10	Urban Transport Authority for Lima and Callao (ATU).	public	Specialized technical agency attached to the Ministry of Transport and Communications, with competence to plan, regulate, manage, supervise, control and promote the efficient operation of the Integrated Transport System of Lima and Callao
11	ByD, ENEL, Engie	Private	Private companies with activity in electric mobility.
12	Global Sustainable Electricity Partnership (GSEP); GIZ; IDB; NREL	international cooperation	Entities involved in electric mobility and renewable energies

3. Findings

3.1. Design and formulation of the project

This section will discuss only the aspects of project design, as described in the Prodoc, without considering ***the changes introduced*** during the implementation of the project, which will be discussed in Section ***3.2.***

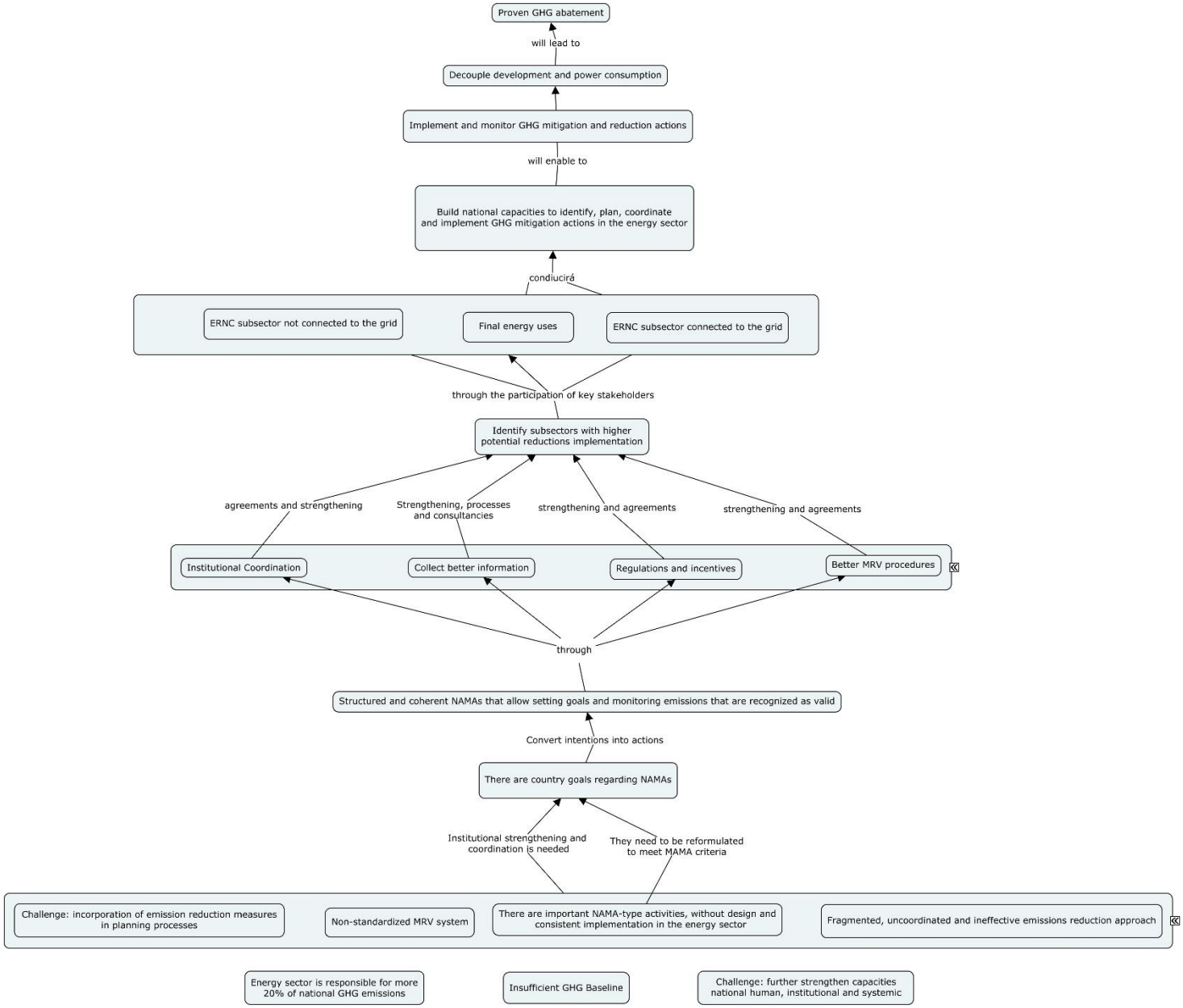
The project was designed between 2012 and 2014 and was therefore a GEF-5 project. The elaboration of the Prodoc was framed in context of the agreement of the United Nations Framework Convention on Climate Change of 2007, when it was decided that developing countries would contribute to the global reduction of greenhouse gas emissions through the development and implementation of NAMAs' mitigation actions and that these would be carried out in a measurable, reportable and verifiable manner. In this way, Peru made voluntary commitments to reduce emissions, carrying out various actions to comply with them that, however, did not meet the conditions to be recognized as NAMAs.

The strategy chosen was then to select the connected/non-grid power generation subsectors, as well as the end uses of energy. According to the information available at that date, these subsectors would have the greatest potential for GHG reductions. In addition, because some of the mitigation actions were already in the implementation stage (for example, rural electrification with photovoltaic panels and a system of incentives for renewable energy production connected to the grid), it would have the advantage of starting work on these actions without further delay, while the rest of the project activities (inventories, design of standards and incentives and the MRV system) could be planned.

Fig.1 shows a simplified outline of the causes of the problem to be solved and the actions to be taken to achieve the desired effect according to the logic established in the Prodoc, it should be mentioned that this project document does not contain an explicit theory of change for the project. To implement its strategy, the Prodoc proposes a structure consisting of a Project Steering Committee (PSC) composed of UNDP, MINEM and MEF, this body being responsible for strategically guiding the actions of the project and facilitating its execution. The implementation of the project is of the "National Execution" (NIM) type, which would be in charge of the General Directorate of Energy Efficiency (DGEE) of the MINEM, where the project executing team would be installed. UNDP's role is to advise and oversee the implementation of the project.

Finally, it should be mentioned that the execution time allocated for the project was 4 years, insufficient time to realize a complex project like this due to the high specialized technical content required and, in addition, because the energy sector is very important in the country's economy. In general, full-size GEF projects have a standardized duration of 5 years.

Fig. 1: Simplified ToC conceptualization of the project model and strategy according to Prodoc.



Source: own elaboration from Prodoc.

3.1.1. Analysis of the logical framework and the Results Framework

The Prodoc has a strategy whose strength was not to pigeonhole itself into specific energy NAMAs, but that these would be identified during the development of the project, which gives it great flexibility in identifying a wide range of mitigation actions. This same amplitude (NCRE connected and not connected to the grid) is also a great weakness, because it is difficult to follow up on an indeterminate number of mitigation actions and targets, whose indicators are also too general to measure a change of situation (see specific discussion on indicators in 3.1.3), considering the wide spectrum of activities included within these 2 subsectors related to electricity generation, to which should be added the final uses of energy (energy efficiency). The long list of mitigation activities contained 22 possible measures to be considered NAMA, in addition to another 6 that were in preliminary design[10].

On the other hand, the definition of the desired results of the project does not consider a fundamental aspect, such as the expression of a change of situation through a specific action of the actors involved, but in some cases they correspond to products that had to be obtained (for example, MACC curves and inventories), while the management of knowledge and lessons learned does not have a specific component or result , so there is no clear visualization of how knowledge sharing or the systematization of lessons learned from the project would be implemented. Nor does Prodoc include the requirement to develop a project exit strategy that could continue the achievements and address the remaining challenges once the project is completed.

As an example of the above, the fundamental objective of Outcome 1 is to understand the current situation of GHGs and their projections in the medium and long term, in order to assess how current and future NAMAs will affect the sectoral decrease in GHG emissions. On the other hand, although GHGs and BAU are important, they could be considered products rather than results.

For Outcome 2, this is considered incomplete, because it does not include institutional strengthening, which is a fundamental requirement for the entire NAMAs identification and prioritization process[11].

With regard to the issue of energy efficiency, this is in the Prodoc report, but the results matrix does not include any indicator or target for this type of mitigation measures, nor is the approach to actions for this subsector clearly specified.

Finally, it is worth mentioning that actions for knowledge management, exchange of experiences and sustainability are in the background in the design of the project, such as training, dissemination and communication of results along with the collection of lessons learned and the actions necessary to ensure the sustainability of the actions. In general, these activities should be included in a specific component of the project.

Table No. 6 shows the analysis performed for the project results statements, according to the understanding of the evaluator.

[10] Pags. 15 y 95 del prodoc.
[11] Prodoc pp. 33-57.

Table No. 6: Analysis for the prodoc results statement

Prodoc Strategy		comment	Recommendations for the Outcome
Objective			
O.1	***Support the Government of Peru in the development and implementation of appropriate national mitigation actions in the energy sector***	The primary objective of the GEF is to promote actions that reduce environmental damage and the consequences of climate change at the global level, through various types of interventions (strengthening, investment, dissemination and awareness raising, among others). Therefore, the primary objective of the project would be to reduce emissions through defined actions.	Contribute to the global reduction of GHG emissions, through support to the government of Peru in the development and implementation of NAMA in the energy sector.
Results			
1	***Baseline of GHG emissions at national and regional reference level (BAU) for the established energy sector.***	The fundamental objective of the result is to understand the current situation of GHGs and their projections in the medium and long term, in order to understand and quantify how current and future NAMAs will affect the sectoral reduction of emissions. On the other hand, although GHGs and BAU are important, they could be considered products rather than results.	It would be better if, for future projects, the results of outputs were related to the effective use of the products by key actors, for example: "The country has a system for preparing GHG inventories and reference scenarios for the energy sector, to identify and prioritize its mitigation actions, and report its emission reductions and results".
2	***Prioritized Mitigation Actions and Identified MACCs, documents for NAMAs in the selected subsectors designed, and 4 NAMAs prepared for implementation.***	This result is considered incomplete, because this result is institutional strengthening, which is a fundamental requirement for the entire process of NAMAs' identification and prioritization. Also, it seems to be a product(s) rather than a change of state.	As in the previous case, the result is a function of the use of the products by the interested parties to represent a change of situation, such as: "The government of Peru, together with the relevant actors, identifies and prioritizes the NAMAs of the energy sector, thanks to the improvement of capacities provided by the project".

Prodoc Strategy		comment	Recommendations for the Outcome
3	***(i) Entities related to grid-connected renewable energy (all technologies excluding large hydropower); (ii) off-grid renewable energy subsectors and (iii) energy end-use related to energy efficiency that will contribute to achieving compliance with Peru's iNDC.***	This result also includes regulatory and incentive instruments for NCRE. MRV systems should not be included, as these are found in result 4.	The result could be better aligned with the project narrative: "NAMA for NCRE in 3 energy subsectors are implemented by related entities, contributing to Peru's iNDC goals."
4	***Precise mechanism for the measurement and accounting of actual GHG emission reductions from mitigation actions in the power generation and end-use sector.***	An important aspect of this outcome is the institutional organization to follow up on NAMAs.	It would be more complete if this result emphasizes the institutional aspects, such as: "A precise MRV mechanism is established for 3 energy subsectors, which is monitored in a coordinated manner by the relevant institutions."
5	***Knowledge management***	The Prodoc includes lessons learned (outcome 3), institutional coordination, capacity building, but they do not have adequate visibility and are scattered throughout the Prodoc. On the other hand, it does not include the requirement to develop a project exit strategy, not how the NAMA procedures and MRVs could be scaled, nor how to exchange the knowledge acquired.	For future projects it is suggested to include a specific result on knowledge management, scaling and sustainability of results, such as: "The public and private institutions strengthened by the project share their knowledge of the NAMA experience with their national and international counterparts, as well as with regional and local actors in Peru with the aim of scaling institutional procedures, methodologies and disseminate lessons learned".

3.1.2. Indicators

The Prodoc contains a number of indicators which, as with the results statements, most refer to product indicators, with the exception of GHG emission reduction targets. For example, the indicator to measure the improved understanding of the emission baseline is general (evolution of emissions), timeless and could not necessarily be directly related to the inventory for the energy sector.

It is also found that the definitions of the indicators mix the desired measurement with the goals, while others are confusing, redundant, un-measurable and not very relevant. Examples of the above can be cited indicators of project objectives (evolution of...), result 1 (inventory procedure = methodology or institutional arrangements, or both?), result 2 (portfolio of activities and sheets of NAMA), result 3 (NAMA 2 and 3 referring to renewable energies connected to the grid and EE).

It would also have been desirable to establish own indicators on knowledge management and sustainability actions, such as the development of an exit strategy for the project. With regard to the issue of gender, there are no specific indicators for this dimension of the project.

A detailed analysis of the indicators can be found in Annex 9**.**

3.1.3. Assumptions and risks

The Prodoc identifies 8 potential risks to the success of the project. Among the most important are the favoring of the market by natural gas over NCRE (moderate risk), technology failures (medium-high) and insufficient human resources (medium-low)[12]. Although these risks have arisen during the implementation of the project, they have been properly managed thanks to the measures taken by the project. However, the Prodoc's analysis does not include risks associated with key players in the energy sector, such as the private sector (power generators and transmitters, transport, the final sector such as trade and industry). The decisions of this type of actors have a high impact on the project, such as in terms of pressure to approve or reject bills or make investments, and it was necessary to have an approach to the problem during the elaboration of Prodoc[13].

3.1.4. Lessons from other relevant projects incorporated into the project design.

The Prodoc contains an extensive discussion on the mitigation actions carried out in the country regarding the clean development mechanism (CDM) and rural electrification based on photovoltaic panels (DGER and FISE), as well as those implemented by other international partners such as the IDB or the World Bank, UNDP, etc. However, there is no discussion regarding the lessons learned from the experiences described, but apparently the findings of them could be inferred from the need for a more coordinated institutionality to implement a NAMAs' portfolio that complies with standardized methodologies and a monitoring, verification and reporting system that make it possible for initiatives to be considered as NAMA by the UNFCC. On the other hand, another lesson learned is the strategy of covering narrowed subsectors that seems to come from previous experiences.[14]

[12] Prodoc page 43 and Annex 7.1

[13] Project extension form, 6-1-2020 invokes as one of the reasons why the regulation is maintained to recognize the firm capacity of the RER, the pressure of the generating companies.

[14] Sections 1.2.1 and 1.2.2 contain a detail of the NAMA-type activities carried out in the project development period.

3.1.5. Planned stakeholder participation.

The project contains a section where stakeholders and their relationship to the project are discussed. However, the level of analysis is high level, that is, it mentions roles in general terms of the institutions involved, but there is no analysis of actors themselves, such as those who are primary and secondary. For example, the specific role of the regional authorities in the different components of the project is not found in the Prodoc, nor what would be the key directions of MINAM that manages this NAMA issue or how the GEF focal point can contribute to the results of the project.

With regard to the private sector, the description of its role is even more modest, remaining in the generality, although actors such as the COES or the Energy and Petroleum Society to name a few examples.

Therefore, participation is mostly linked to government entities and very marginal for other actors in the energy sector. The non-existence of instances of participation for actors who could be affected or benefited by the project activities runs the risk that they will use other types of informal mechanisms to influence final decisions regarding the different outcomes of the project.

3.1.6. Gender and Human Rights Approach

The Prodoc includes a section exclusively for the gender approach [15]. However, this section is declarative on the importance of the role of women but does not mention how the project would affect their living conditions and does not define strategies or indicators of the project to measure progress in this regard, establishing that these could be included in the MRV system.

The Prodoc does not include neither an analysis of the situation of women within the 3 subsectors chosen for the project, so there is no baseline, and no strategy is defined within its logical framework, nor was the gender marker used. According to the interviews conducted and the documents reviewed, a specialist or a gender study would not have been included for the project development stage, which could be the reason for the declaration of the corresponding section.

3.1.7. Replicability approach

The approach of replicability and scalability of the results of the project is one of the parts that presents greater weaknesses, since it assumes sustainability and replicability would be automatic once the project is finished, since the Peruvian State has invested and will continue to invest in the NAMAs[16]. However, it would have been necessary to integrate an additional component on knowledge management and sustainability in the Prodoc, in order to establish some milestones such as the elaboration of an exit strategy for the project, so as to establish the main measures and their responsible to adopt the mechanisms, methodologies, studies and regulatory proposals elaborated by the project. Finally, the involvement of other actors such as regional and local authorities, as well as the private energy sector is not included.

[15] Mainstreaming of the gender approach, pag. 52 prodoc
[16] Sustainability and replicability are found in pages 49 and 52 of the prodoc.

3.1.8. Comparative advantage of UNDP

The Prodoc contains an overview of projects implemented by UNDP in the country and the use of some tools developed by this organization. However, it would have been desirable to include an overview of the comparative advantage over other organizations, whether in terms of knowledge of the country, its operational advantage, cooperation network and technical support.

3.1.9. Links between the project and other interventions within the sector

As mentioned in section 3.1.4 of the present report, during the preparation of the Prodoc, a search was made for all interventions that were under way in the country, so as to avoid duplication and work in coordination with them.

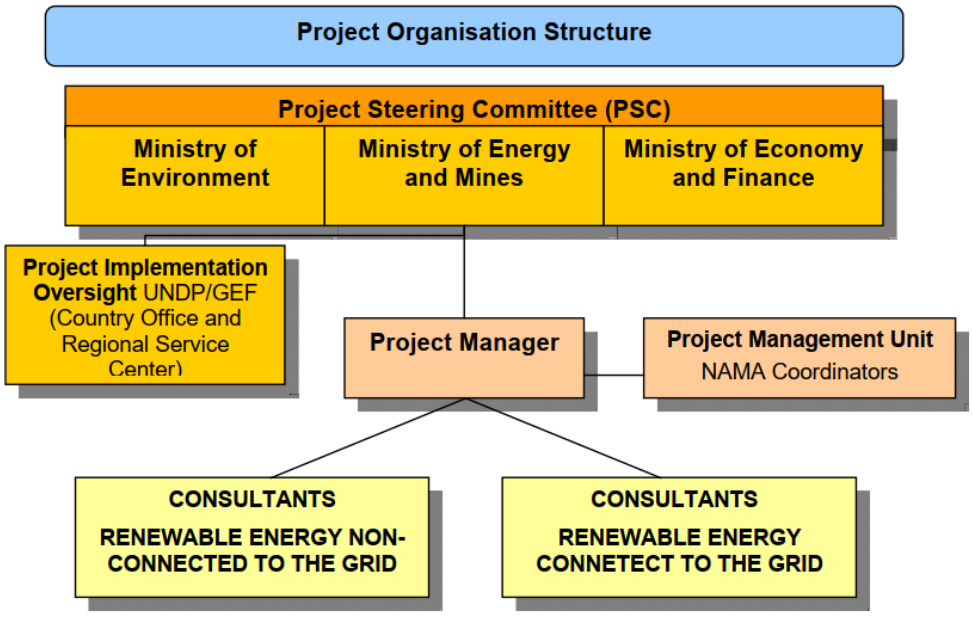
3.1.10. Administrative Provisions

The implementation of the project contains institutional arrangements that include a Project Steering Committee (CDP) consisting of UNDP, MINEM, MINAM, MEF and the National Project Director (non-voting). This body would be chaired by MINAM. The implementation of the project would be carried out by a Management Unit (PMU) located in the EGE of MINEM, the entity responsible for the national execution of the project (NIM modality). The PMU would be made up of 5 people: 1 coordinator, 2 experts in mitigation and energy, 1 economist in charge of incorporating the mitigation and MRV system indicators into the budgets, and 1 administrative assistant.

UNDP, for its part, would manage financial resources in accordance with its rules for the procurement of goods and services and monitor progress.[17]

Fig. No. 2 shows the outline of institutional arrangements for the implementation of the project.

Fig. 2: project governance scheme according to Prodoc.



[17] Section IV of the prodoc.

It is worth mentioning that, unlike other projects of this type, the constitution of a Technical Committee to advise the PSC in its decisions is not contemplated, nor are working groups contemplated that could integrate a greater number of relevant actors in the process. These committees play an important role in offering a technical perspective external to that of the implementation of the project, but this function was completely assumed by the MPU, a situation that is not highly recommended because it is immersed in the daily management of the project and, therefore, presents a significant degree of ownership of the strategies executed by the project.

As will be seen in the next section, in practice numerous discussion groups were established organized by theme and workshops were organized to discuss the different proposals and studies carried out by the project.

3.1.11. GEF project additionality

The project presents additionalities in the field of institutional governance by requiring the creation of a mechanism to develop energy GHG inventories at the national and regional levels, a situation that was not the case in experiences prior to the project. It is worth mentioning that this institutional mechanism was created in 2014, before the project went into execution, but it had to implement part of this institutional mechanism.

On the other hand, implementation of NAMA's grid connected NCRE power generation and the implementation of electrification of rural homes and improved kitchens could bring social benefits in terms of improved living conditions and creation of new jobs for the beneficiary communities. At the same time, the introduction of new technologies would also bring new jobs for the installation, maintenance and repair of these systems.

3.1.12. Environmental and Social Safeguards

The "Social and Environmental Risk Screening Procedure (SESP)" is a tool that UNDP uses during the design of GEF projects. It consists of a checklist form with a series of questions that identify the environmental and social risks of the projects during the formulation stage and the corresponding measures to mitigate them during execution. If new information is available during project implementation or substantive changes are made during the project cycle, this tool shall be updated, and the risk should be reassessed (Low, Moderate, High).[18]

In the specific case of this project and with the information provided to the evaluator, it is not observed that it was applied during the preparation of the project because the EES policy entered into force in 2015. The SESP was applied during the execution of the project, for the project to strengthen the capacities of rural women to learn technical aspects for the maintenance of solar panels and improved kitchens, designing a detailed strategy to implement schools called "e-woman" Women's School, whose implementation would provide technical tools to improve their income[19,20].

[18]"Guidance Note UNDP Social and Environmental Standards (SES), Social and Environmental Screening Procedure", Updated procedure, OPG approved in 2019.

[19] SESP called "Model of social and environmental diagnosis", specific for the NAMA "Universal Access to Sustainable Energy and its MRV System".

[20] "Consulting Service for the Detailed Design of Country-Appropriate Mitigation Measures (NAMAs) for Universal Access to Sustainable Energy and its Measurement, Reporting and Verification System", Jaime Parada, Nov. 2018.

3.2. Implementation of the project

3.2.1. Adaptive management

The project began its effective implementation in April 2016 with the hiring of the project coordinator, this is approximately 6 months after the signing of the Prodoc (October 13, 2015). It is worth mentioning that the political, economic and social context of Peru in the period 2016-2021 is completely different from that of 2012-2014 (elaboration of the project). Indeed, after a period of political stability and economic development, we moved into a situation of instability where the highest authorities were constantly changing. On the other hand, the country continued in 2016 with a policy of promoting natural gas within its energy structure, which was finally met with an oversupply because important investments in mining projects were not executed during the period of execution of the project, which has had as a consequence that no new tenders have been made for the production of energy connected to the grid since 2015. This suspension of energy auctions directly impacted the project, as it developed proposals to improve NCRE market share[21].

It should also be considered that the crisis unleashed by the COVID-19 pandemic has hit the country hard, resulting in difficulties of travel to carry out project activities, as well as a strong economic impact and civil liberties. Therefore, assumptions of political and economic stability, as well as projections of energy production and demands, were not sustained throughout the execution of the project. With regard to the health crisis, the project activities focused on everything that could be done remotely, namely training meetings and workshops, but field activities had to be delayed or suspended due to mobility restrictions.

As discussed in the previous section, a weakness (and also its strength) of the project was its wide scope coupled with a vague definition of the NAMAs that were to be implemented, along with some goals and indicators with little clarity in their statements and form of measurement. Fortunately, the PMU conducted an early analysis exercise of these aspects that resulted in specific NAMA and mitigation actions to implement in the project, along with other goal adjustments and clarification of language that seemed confusing or contradictory. These changes – shown in Table No. 7 – were discussed with UNDP and presented for discussion among the stakeholders during the Home Workshop (June 2016), where an analysis was also made on the progress made in the implementation of mitigation actions and institutional and regulatory changes in the country, because this project was developed between the years 2012-1014, while the operational start began in April 2016[22].

During the initial period it was also agreed to implement a NAMA to promote efficient and clean transport and energy efficiency measures (labelling and transformation of the lighting market)[23]. However, it was decided not to change the indicators due to the cumbersome authorization process by the GEF, which could have lasted several months, damaging the progress of the project that was already behind in its execution.

[21] See Project Extension Form: Between 2015-2019 there were 3 presidents, 6 Ministers and 5 deputy ministers in MINEM, in addition to 6 National Directors of the Project and closing of the congress in 2019.
[22] There are a number of minutes of meetings between April -June 2016, photos and the start report that can be delivered upon request.
[23] PSC's 1st meeting minutes

Table 7: Summary of changes made during project administration.

No.	Original in Prodoc	Change made
1	NAMA#1: off-grid renewable energy with photovoltaic panels	NAMA #1: Universal Access to Sustainable Energy (includes solar panels, improved stoves, wood fuel switching, biomass to LPG in stoves and stoves, clean cooking)
2	NAMA #2: Off-grid renewable energy	NAMA #2: Renewable Energy and/or EE (remains as NAMA of EE that includes labeling, transformation of the lighting market, energy audits in the public and private sector, development of energy audit regulations.
3	NAMA #3: Grid-connected renewable energy	NAMA # 3: renewable energy connected to the grid and / or EE (finally remains as NAMA of replacement of the energy matrix in the transport sector, promoting electric mobility in buses and taxis).
4	NAMA #4: Grid-connected renewable energy	NAMA # 4: renewable energy connected to the grid (remains as NAMA that promotes legal and regulatory instruments so that the generation of electricity using NCRE and hydroelectric < 20 MW can compete with traditional generation, with the aim of having a 5% share of the country's energy matrix.
5	No advisory committee for the CDP or working groups	Formation of working groups by type of NAMA and specific topics.
6	No gender strategy or related indicators	Diagnosis and baseline of gender and energy in Peru and cultural aspects of the NAMA, especially in the #1 where specific strengthening workshops for women are implemented and the creation of the "Energy School for Women (e-Women)" is proposed. A study was carried out to systematize the results of e-Women and proposed for its massification at the national level.
7	National and regional energy GHG inventories	The regional inventories will focus on the regions where the NAMAs will be implemented, as it would be difficult to carry it out in all regions considering the time and resources available. Finally, the regional inventories were not drawn up as they were considered not relevant[24]
8	No indicator for EE measurements	Implementation of at least two EE NAMAs (energy end use).

The mid-term evaluation (MTR) was carried out late between Dec 2018 and March 2019 (38 to 41 months after the formal start of the project in Oct. 2015), considering that in the PIR 2017 (covers implementation period Oct. 2015 - June 2017) the risk and the implementation of the project had already been rated as "substantial" and "moderately unsatisfactory" respectively. According to the interviews conducted and the documentation reviewed by the evaluator, this delay in the MTR – which was to be executed in October 2017 – is partly explained by the belief that the project would last 5 years[25] (2015-2020, with MTR in April 2018) and that the time account was applied from the hiring of the coordinator and not from the signing of the Prodoc. In addition, another important factor that had to be faced to carry out the MTR was the lack of suitable consultants, which meant that the recruitment process had to be carried out three times, delaying the mid-term evaluation by six months[26].

The MTR also detects shortcomings in the strategy and results framework of the project in terms of precision and scope of the activities, attributing this to the existing information conditions in the country, but also finding as positive the fact that this situation provides flexibility in its execution. However, it also proposes that the scope and goals of the project be reviewed and clarified with greater ambition.

[24] CDP, MINUTE No. 001-2016/CD -PROY- NAMA, June 17, 2016.
[25] All the annual progress reports 2016-2020 sent to UNDP set the project completion date according to Prodoc for July 2020: for example, memorandums 46-2017-MEM/DGEE, 15-2018-MRM/DGEE, 549-2018.
[26] PIR 2019, p. 29

On the other hand, although the MTR rated the different results as "satisfactory" and "moderately satisfactory", this was mainly due to the generality of the indicators and the bulk of the Prodoc's targets, and therefore recommended that these parameters should be clarified with a view to the final evaluation. The MTR also noted that greater efforts should be made in communicating with private sector actors and business associations in order to enrich the lessons learned and avoid duplication of efforts.

With regard to the DGEE, the MTR indicates that the project should promote the appropriation of the NAMA within the framework of the current Energy Efficiency (EE) project in the MINEM. Unfortunately, the wording of this recommendation was wrong, as there was no EE project in the DGEE and was therefore not accepted by the project. The meaning of the recommendation was focused on carrying out a work of appropriation of the actions of the project and its results within the DGEE, which the final evaluation also corroborated during the interviews that it is necessary to strengthen the institutional commitments of the DGEE and MINEM, especially in the implementation of the MRV system and institutional support for the approval of standards for distributed generation , promotion of electric transport, audits in energy efficiency and technical standards in energy efficiency and charging stations for electric vehicles.

In addition, it is proposed to carry out studies on gender and interculturality - in coordination with the executors - to identify factors that may influence the implementation of these NAMAs, and to define the final design of the "Technical Institute for Women", now called "Energy School for Women (e-Women)". In total, there were 19 recommendations grouped into 9 themes. Table No. 8 summarizes the MTR's recommendations and the project's response.[27]

Table 8: Summary of MTR recommendations and their impact on the project.

No.	***Recommendation***	***Project response***	***Acceptance***
A1, A2, A3	Review the definition of project objectives, results and indicators and define the scope of the project with respect to other ongoing activities to avoid duplication in efforts and quantification of emissions, in addition to extending the project implementation period and extending the technical team	The indicators cannot be changed, but clarifications will be made in the quarterly and annual reports and potential duplications were identified in Produce's cement and brick NAMA. Extension was requested for one year and specialists of Gender and Climate Change and Information and Communications were hired, it is not necessary to hire an Electric Transport specialist.	Partial
B3, B4	Form multisectoral technical support groups for each NAMA, reschedule project roadmap until 2030 and coordinate with the MINEM OPP and the MEF the incorporation of NAMAs into the results-based budget.	Formalize the technical groups constituted, two PPRs in rural electrification and clean cooking and in PPR evaluation for NAMA of Electric Transport and Energy Efficiency.	Partial
C1, C2	Expand the scope of communication of the project, with the support of the senior management of MINEM and other ministries and establish systematic exchange meetings between the executing team.	Collaborating with the Images group and releasing publications on a regular basis, exchange meetings between the executing team are normal.	Partial
D1, D2	Carry out studies of gender and cultural aspects that could affect the actions of NAMA, in coordination with the	The development of activities to include gender and intercultural issues in the implementation of the NAMAs and the NDC of Peru will be evaluated, inviting other entities	Accepted

[27] The UNDP Management Response

No.	Recommendation	Project response	Acceptance
	executing agencies and define the Technical Institute for Women.	involved. For e-bite a workshop will be held with the results of the pilots.	
E1, E2	Determine the energy demand profile in rural and urban areas involving civil society organizations and local governments, and coordinate with the DGER the rural energy plan to organize the actors of the system and design energy access planning instruments.	The energy survey application will be finalized, and its implementation will be advanced in collaboration with INEI, DGER, OSINERGMIN, MIDIS and other entities. A pilot will be developed integrating the recommendations of the diagnosis of the rural electrification plan with a view to its modification.	Accepted
E3, E4, E5	Coordinate with OSINEGERMIN for the achievement of key legal and regulatory instruments, the review of management models for the SFV service, collaborate with other national entities and cooperation on the issue of clean cooking with leadership training and local ownership.	No answer to the issue of coordination of legal instruments. Pilot will be implemented to modify the rural electrification plan, update the MRV and collaboration with FONCODES and universities in the development of clean cooking, but without response to the issues of leadership and local ownership.	Partial
E6, E7, E8, E9	Promote the appropriation of the EE NAMA in the MINEM with political support from the DGEE, work with INDECOPI on the pilots, intensify collaboration with the private sector and microfinance organizations, develop a multi-institutional strategy to overcome existing barriers at the highest political level, and incorporate the MTC into the PSC.	The project states that there is no EE project at MINEM and that every effort has been made to involve the professionals of the DGEE and its director in the NAMA. Contacts are initiated with INDECOPI for training in labelling and activities are carried out with banking institutions, but there is no answer as to what happens with the private sector, that is, companies and associations of power generators and transmitters, and trade, for example. With regard to the multi-institutional strategy, it is stated that efforts have been made to promote RERs and regulations, but approval does not depend on the project. However, there is no answer about designing and implementing a high-level strategy to overcome existing barriers.	Partial

To summarize the results of the MTR exercise, it can be concluded that the main topics of concern were the more precise definition of the statements of results and indicators, as well as the scope of the project interventions to avoid duplication in calculations of emissions and efforts. The other major issues that appear are those of improving communications with third parties and the private sector, beyond information and dissemination activities, and the integration of more actors within the CDP and the constitution of formal technical groups that would allow greater participation. In addition, the MTR also expressed its concern to improve coordination with other government entities and the design of strategies to achieve the approval of the legal and regulatory instruments necessary to promote NCRE in distributed generation and the U.S.

However, considering the high political volatility and the constant changes of authorities and closure of the congress, it is very likely that no high-level coordination effort or strategy to get the approval of regulations could have been successful in these circumstances. This forced the project to maintain a highly technical and institutional coordination profile with technical staff from the government institutions that could be maintained over time until the situation in the country is normalized, and the appropriate transformations can be done, and the NAMAs projected in the future.

Interaction with the key private sector (generators, transmitters, industry, trade and business associations) was largely not achieved, with the exception of some electricity transport-related companies and energy suppliers interested in energy efficiency. The same could be said with regard

to the relationship with regional and local authorities, whose participation in NAMAs appears to be very small, where implementation is decided and executed from the central level of government.

Finally, it should be noted that the project's implementing team responded adequately to the COVID-19 pandemic, favoring online communication in the holding of meetings and in all those activities such as training and workshops.

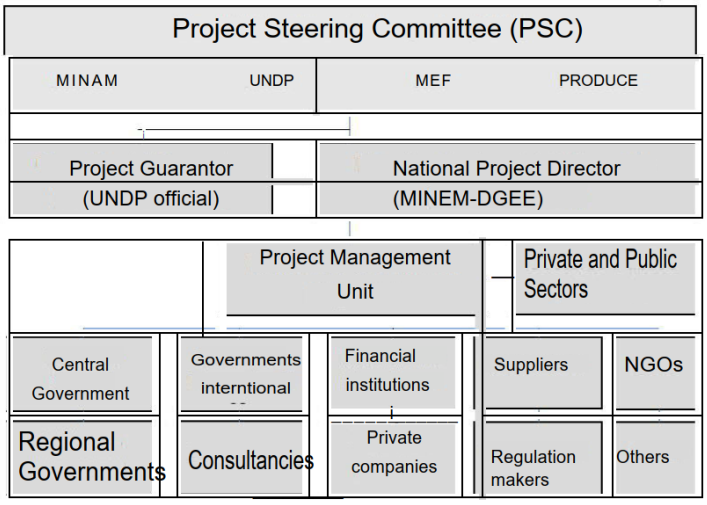
As a conclusion of this section, it can be said that the ***adaptive management of the project*** was "**Satisfactory**" considering the conditions of political crisis, changes in the patterns of energy production and consumption and the limitations on mobility resulting from the global pandemic.

3.2.2. Partnership agreements

The execution of the project was focused on the actors of the government sector - such as the MEF, MINAM, MINEM and Produce as main allies who were constituted as members of the CDP together with UNDP, as can be seen in the scheme of actual execution of the project (see Fig. Nº3). It is worth mentioning that the participation of the MEF was a milestone, because it is the first time that this institution was involved in a GEF project.

On the other hand, the CDP – chaired by MINEM – met 7 times in the period 2016-2020, whose members also had changes, which also complicated the continuity in the discussion of the key issues of the project such as, for example, the new regulations and regulations that were desired to be proposed to promote NCRE within the energy matrix of the country (power to firm , standards for charging stations, energy audits, regulation of the climate change law)[28].

Fig. 3: scheme of effective execution of the project



Unlike Prodoc's governance scheme, a number of actors from different sectors were included, such as Produce, financial institutions, private companies, regulators such as OSINOGERMIN and regional authorities. These actors participated mainly in thematic-specific working groups and discussion workshops. Unfortunately, the information available regarding how the actors participated is limited to a long list of workshop and meeting attendees (out of 60 folders with at least 600 attendee

[28] Change of Representatives PSC: MINAM 2, MEF 2, MINEM 5, Produce 3

records), which makes it very difficult to establish a NAMA's structure for topics related to specific institutions and interests related to the respective mitigation measures. In addition, the information presented does not allow to differentiate the primary actors from the secondary ones, nor whether they were an active part of the discussions or simply attended informative activities of the project. It would have been desirable for the project to have first drawn up a map of public and private institutional actors, and defined the level of interest, level of affectation of the project activities with their activities and impact on decision-making, so as to have implemented an appropriate approach strategy for each of them.

The project needs to better organize the information that is delivered to the PSC, UNDP and the evaluators to provide a clear and summarized vision of key aspects such as stakeholders. If someone wants to know who the key stakeholders are, the information is scattered in numerous consulting reports, some NAMA action plans and in the list of workshops and meetings held.

With respect to partnerships with other cooperation agencies, the project was successful and an active collaborator of institutions such as the IDB, SDC and GIZ, reaching agreements to complement studies and actions in electric transport, energy efficiency and clean kitchens, to name a few.

For the NAMA of Photovoltaic Panels in rural areas, the implementer was the FISE and the DGER, whose program has been running since 2012. With regards to the NAMA for electric transport, agreements were made with the Lima transport authority, the MTC, IDB and the electric vehicle supplier companies to execute the pilot experiments.

For the creation of financial incentives for users who wish to acquire NCRE-based technologies, work was made with COFIDE.

Regarding the incorporation of gender issues in the project, this was integrated into the NAMA for Universal Energy Access, where a specific training plan was developed for rural women through the Energy School for Women (e-Women). FONCODES was the partner to implement the improved kitchens and stoves, in addition to collaborating in the implementation of the workshops of the e-woman school, making use of its territorial networks of local scope to identify and engage community leaders.

On the subject of inventories and MRVs, the main interlocutor was MINAM, which is the national agency responsible for its publication before the UNFCC.

3.2.3. Project M&E

Design at entry (*)

Rating: Moderately Unsatisfactory

The Prodoc contains a series of milestones, a follow-up plan and a budget to monitor the progress of the project. [29]This plan contains all the standard elements for this type of activities, such as installation of the PSC, the start-up workshop, quarterly and annual reports, PIR, audits and mid-term and final evaluations. However, the budget of USD 67K for 4 years seems insufficient, considering the size and complexity of the project to be executed, and besides the M&E Plan does not assign any role to the GEF national focal point in the final evaluation of the project or in the PAC[30], although it also appears as a guarantor that the project is executed in accordance with Prodoc and UNDP guidelines[31].

[29] "Monitoring and Evaluation Framework", Prodoc page 67-72.
[30] Prodoc, sections "M&E work plan and budget", "Monitoring and Evaluation Framework".
[31] Prodoc Annex 7.4: National Focal Point

As mentioned above, the design of the project contained many uncertainties in terms of basic information, a very vague description of its scope, the results to be achieved and its indicators to measure this progress, to which should be added that the issue of NAMAs was new, and that the country did not have the adequate technical and institutional capacities to face this challenge.

In addition to the above, it is important to note that there were 2 versions of Prodoc and another corresponding to the endorsement letter of the CEO of the GEF[32]. The version signed by the GoP is for a project with a duration of 5 years, while the one authorized by the CEO's GEF is for a project of 4 years, a situation that had a negative impact on the planning and implementation of the project, which were founded on erroneous bases with respect to the deadlines and levels of annual disbursements including M&E activities.

For the above reasons is that the **input design for M&E** of the project is rated as "***Moderately* Unsatisfactory".**

Implementation of the M&E Plan (*)

Rating: Moderately Satisfactory

The implementation of the project required the introduction of several changes to clarify the scope, define the NAMAs, include new indicators and restructure some activities specified in the Prodoc (see section 3.2.1). It should also be mentioned that the milestones of periodic reports, audits, CDP meetings and evaluations were also fully met. It should also be mentioned that the Tracking Tools were developed for the start, midterm and completion of the project.

However, the strategies for risk management could be better elaborated, in the sense that the actions taken by the project before and after the MTR were those already being carried out, such as updating each new director or minister and adapting to their priorities or strategies. In this sense, UNDP's actions of making high-level contacts and visits to ensure the continuity of the project seem correct, but there is no strategy of extending the scope of action to other actors - both public and private - that would support the project efforts.

With regard to the participation of the GEF Focal Point in the country (MINAM), the CDP meetings were attended by MINAM officials, but interviews showed that the focal point had little involvement in project activities.

On the other hand, considering that the changes introduced to the project very early on were beneficial and correct, since several lines of action were defined in relation to the 4 NAMAs and focused on the 12 mitigation measures, the way in which progress was measured did not change considerably (the indicators). In addition, there is some confusion with the reports that were presented in different instances, because the description and numbering of these NAMAs from the Prodoc do not correspond to those reported in several progress reports and PPT presentations,

[32] https://www.thegef.org/project/nationally-appropriate-mitigation-actions-energy-generation-and-end-use-sectors

making it difficult to understand, at least to external people not linked to the management of the project[33].

Finally, it is worth mentioning that one measure that would have alleviated these M&E problems to track the project progress would have been to hire an M&E specialist to make the necessary adjustments to the project's metrics - both at the level of objectives and results and of outputs - in order to become their progresses more clearly, which are many, but which have little visibility because of the way to measure and report their progress. In addition, as each NAMA has its own monitoring, verification and reporting system, the M&E professional could have been involved in defining the appropriate indicators and collecting the information needed for the NAMAs that were designed.

However, all this task was left to the project coordinator, with a workload of consideration whose essential concern is to see how she will implement the project, meeting deadlines and goals not very well established.

For the above reasons and considering the unusual situations of national and international context that the project has had to overcome, the M&E system during implementation is rated as "Moderately Satisfactory".

The rating of the overall design and implementation of the M&E system is considered as "Moderately Satisfactory".

UNDP implementation/monitoring (*)

Rating: Moderately Satisfactory

UNDP's role in the project was to provide administrative services and management of project funds, as well as to monitor its progress and provide technical advice based on its own professionals or others integrated into its knowledge network.

With regard to the project design and development process, it can be mentioned that UNDP made representations to the GEF in the review and approval processes, as well as identified suitable consultants to carry out the preliminary studies that would inform the NAMA initiative. The preparation of the project and its approval lasted approximately 3 years (2012-2014), approval that could be considered fast compared to projects of similar size. However, the signing of Prodoc between UNDP and the Government of Peru took almost 18 months (October 2015) due to administrative situations on both sides.

In relation to UNDP's role during the implementation phase, UNDP has supported the project in technical and management aspects with high-level authorities in the country. For example, the Regional Technical Advisor (RTA) visited the country on one occasion and had continuous communication with the project coordinator and the DGEE-MINEM. From government part, the Environment and Energy Officer participated in the PSC and advised the project executing unit and

[33] For example: NAMA #3: is electric transport in the PIR, but in project presentations and progress reports it is placed as NAMA #4; RER-connected NAMA is No. 4 in THE PIR, No. 2 in the PPT, and #3 in the progress reports.

the DGEE on climate change and energy policies, as well as seeking technical support when the project needed it.

Generally speaking, the monitoring of the project has been constant, but as discussed in Section 3.2.1 the reaction to the risks of the project has been late, as for example the MTR was carried out between December 2018 and May 2019, this is between 38 and 41 months after the signing of the Prodoc, rather than being carried out at 24 months. This delay comes despite the fact that as of June 2017 the project was rated as "substantial" risk and implementation was "moderately unsatisfactory"[34]. On the other hand, also contributed to the delay the belief that the project was 5 years and that the account of the deadlines began from the hiring of the coordinator, and the low availability of suitable consultants to perform the MTR meant, in addition, an additional delay of 6 months and 3 processes of hiring the evaluator. Likewise, because in 2017 the execution of the project did not yet generate products, it was decided to postpone the MTR until more results were observed.

A year later, the risk of the project was "moderate" and the implementation "moderately satisfactory" despite the fact that the instability of the country was maintained and there had already been a high turnover of authorities and project managers[35].

In this regard, UNDP could have used some follow-up mechanisms, such as conducting a follow-up visit (consisting of an early evaluation of the project) or advancing the MTR to detect and correct deficiencies in project implementation and design earlier.

The explanation can be found in that, in the midst of the institutional crisis, the project decided to move forward in the preparation of technical studies for the preparation of inventories, baselines, NAMA proposals, etc. that would serve as inputs for the discussion of regulations and new regulations for the electricity sector on issues such as electric transport, electricity distribution and energy efficiency, which could be discussed once the institutional situation was normalized, a situation that ultimately did not occur and key regulations have not yet been approved[36].

Although UNDP played a key role in promoting and supporting the project, it did not properly weigh the risks associated with its implementation and the opposition that the regulatory proposals were generating in some sectors, mainly from energy distribution companies. A key aspect that also affected the implementation of the project is that UNDP could have clarified more actively from the beginning the duration of the project, which was planned and implemented on the wrong bases, such as, for example, 5 years of execution instead of 4, the implementation deadlines count from the moment of signing the Prodoc and not from the hiring of the project coordinator.

For the reasons described above, it is considered a rating of "Moderately Satisfactory".

[34] In the PIR 2017 the planning of the MTR for December 2018 is maintained.

[35] The PIR 2018 maintained the MTR for 2018.

[36] The request for extension of the project (letter 479-2019 of MINEM-DGEE) explains the high turnover of ministers and other authorities related to the project, the closure of the congress, in addition to the efforts made to agree legislative proposals for electric transport, which finally after 18 drafts, only one pre-publication was achieved.

Quality of execution of implementing partner (*)

Rating: Satisfactory

According to the information gathered, the project executing unit operated in a stable manner between 2016-2021. This unit consisted of 7 professionals whose coordinator remained in charge throughout this period. This qualified team focused on obtaining the expected results of the project in the allotted times, maintaining inter- and intra-institutional links.

As discussed in section 3.2.1, the unit worked within a critical institutional context, where it sought to update the new authorities and reconcile with the priorities and agendas they brought. Although there is no formal strategy or stakeholder analysis, the path followed was to develop a series of technical products and to interact with mid-level peers from other institutions, in order to advance the technical and regulatory proposals for NAMAs. In this regard, the identification, design and implementation of products and activities were carried out following an ordered scheme of annual planning of activities, budgets and reports.

The team could have chosen to establish alliances with more actors - private and public - who had supported the actions of the project, and also to have better estimated the risks that were presented through an analysis of the potential stakeholders affected and benefited by these proposals.

The project was supervised by the director of the Directorate General of Energy Efficiency (DGEE), who participated in the PSC and supported the coordination of the project with other internal instances of MINEM. According to the interviews and the revised documentation, it should be mentioned that between 2016-2021 there have been about 7 directors of the DGEE, some with more interest than others in the activities of the project. Therefore, it cannot be said that institutionally there has been a systematic support to the project or that an evaluation and risk management has been applied during its implementation, this responsibility falling to the implementing unit of the project.

The interviews also show the fact that the DGEE is a relatively new directorate within MINEM (since 2010), which has a very small budget and has had difficulty positioning itself and coordinating with other internal directorates the priorities of the project, citing as one of the causes the existing sectoral culture in the MINEM and within the energy sector. Therefore, the project has been a significant support for the EGED, in the sense of placing new themes and goals within it, as well as a different way of dealing with them.

With regard to the use of project funds, a practice was established that the acquisitions were carried out by the MINEM, where the TDR and reports of the services were carried out directly by this institution, where the role of UNDP was to supervise and ensure compliance with its procurement rules, proceeding to make the disbursements once the DGEE reported the execution of the activities and their conformity with the products obtained. This practice - which is standard for NIM modality - had a very positive effect within MINEM, as its staff were able to learn about and familiarize themselves with UNDP procurement procedures, so they would be prepared to implement this type of implementation in future UNDP projects.

With regard to the products obtained, there is a general consensus that they have a high quality and usefulness to advance reforms of the country's energy sector, while it has been able to establish procedures to design, implement and evaluate the mitigation actions executed by the country.

For the aforementioned reasons and considering the general context of the country and the MINEM (pandemic included), the quality of implementation of the executing entity can be considered as "Satisfactory".

Overall project implementation/execution (*)

Rating: Moderately Satisfactory

It is worth mentioning that as of March 2021, the project was still implementing contracts that had been halted by the pandemic, such as the business model design service for microentrepreneurs as the last stage of the energy school pilot for women beneficiaries, market studies and power measurement of household appliances, the study of a roadmap for the implementation of energy audits in the public sector and the study of massification of electric transport. On the other hand, the exit strategy to sustain the results achieved by the project is also under discussion, such as, for example, the continuity of the MRV system, the elaboration of the technical regulation of charging stations and the implementation of the energy school for women (e-Women). The project team updated this information, reporting that these activities would have ended in April 2021.

Making a balance of the successes and challenges detected during the execution of the project, as well as the difficult context it has faced, the overall quality of the execution and supervision can be considered as "***Moderately Satisfactory***".

3.2.4. Financing and Co-financing of the project

At the time of project approval, the funding included USD 4,500,000 provided by the GEF and USD 32,010,000 for co-financing, making a total amount of USD 36,510,000 as shown in Table No. 9.

However, it is important to note that there were 2 versions of Prodoc and another corresponding to the endorsement letter of the CEO of the GEF[37]. The version signed by the GoP is for a project with a duration of 5 years, while the version authorized by the CEO is for a project of 4 years. Table No. 10 and Fig. No. 4 show the differences between the budgets of both versions, where it can be seen that this error had an impact on the progress of the project, both in the planning and execution of its activities and in the disbursements, as can be seen in the comparisons shown in Tables 10 and 11 and Fig. No. 4 between the signed Prodoc, the one authorized by the CEO of the GEF and the actual disbursements.

Table No. 9: Total financing of the NAMA project according to Prodoc (USD).

Result No.	GEF Grant (USD)	Cofinancing (USD)		Total (USD)
		In cash	In kind	
1	290,000	1,290,000	100,000	1,680,000
2	590,000	1,550,000	100,000	2,240,000
3	2,530,000	25,220,000	250,000	28,000,000
4	890,000	2,240,000	260,000	3,390,000
5 (Project management)	200,000	650,000	350,000	1,200,000
Total	***4,500,000***	***30,950,000***	***1,060,000***	***36,510,000***

[37] https://www.thegef.org/project/nationally-appropriate-mitigation-actions-energy-generation-and-end-use-sectors

Table No. 10: differences detected in the signed Prodoc (Oct. 2015) and what was approved by the GEF CEO (2014).

Result/year	***2016***	***2017***	***2018***	***2019***	***2020***	***2021***	***Total by result (USD)***
R1 CEO	145,000	145,000	-	-			***290,000***
R2 CEO	275,000	245,000	35,000	35,000			***590,000***
R3 CEO	575,000	875,000	665,000	415,000			***2,530,000***
R4 CEO	250,000	250,000	195,000	195,000			***890,000***
R5 CEO	52,000	56,000	36,000	56,000			***200,000***
Annual total CEO	***1,297,000***	***1,571,000***	***931,000***	***701,000***	***-***		***4,500,000***
Result/year	***2016***	***2017***	***2018***	***2019***	***2020***	***2021***	***Total by result (USD)***
R1 Prodoc signed	45,000	135,000	110,000	-	-	-	***290,000***
R2 Prodoc signed	25,000	275,000	220,000	35,000	35,000	-	***590,000***
R3 Prodoc signed	-	875,000	875,000	415,000	365,000	-	***2,530,000***
R4 Prodoc signed	-	250,000	265,000	195,000	180,000	-	***890,000***
R5 Prodoc signed	30,000	64,000	36,000	56,000	14,000	-	***200,000***
Annual total Prodoc signed	***100,000***	***1,599,000***	***1,506,000***	***701,000***	***594,000***		***4,500,000***

The execution of the expenditure as of April 19-2021 reached 99% of the total budget, which is shown in Table No. 11, where comparisons are made against the Prodoc budget signed by the GoP.

In relation to the evolution of expenses by component of the project, Fig.Nº4 shows that all present under-execution during the first 3 years of implementation, where from the fourth year (2019) the disbursements are recovered, leaving an approximate balance of USD 30 thousand. The main reasons for the slowness of the first few years are associated with a high learning curve of the project, the 5-year planning and the situations of instability explained earlier in this report.

Result 3 (implementation of the NAMAs) presents a 101% execution and is by far the most important item of the project, representing about 57% of the total expenditure to date.

Result 1 (inventories and BAU) was supposed to be completed in the third year, however, in that year the peak of expenses is reached, reaching 100% execution in the first half of 2021.

Table 11: evolution of project expenses (in USD) versus the signed prodoc for the period 2016-April 2021.

Component/year	Execution Level	Result 1	Result 2	Result 3	Result 4	Result 5	Cumulative Total by year
2016	Prodoc	45,000	25,000	-	-	30,000	100,000
	Real	19,439	-	35,813	-	23,752	79,004
	%	43%	0%	0%		79%	79%
2017	Prodoc	135,000	275,000	875,000	250,000	64,000	1,599,000
	Real	44,170	276,066	552,080	-	25,937	898,252
	%	33%	100%	63%	0%	41%	56%
2018	Prodoc	110,000	220,000	875,000	265,000	36,000	1,506,000
	Real	86,496	82,409	569,958	-	31,263	770,125
	%	79%	37%	65%	0%	87%	51%
2019	Prodoc	-	35,000	415,000	195,000	56,000	701,000
	Real	35,878	11,081	810,955	151,645	42,134	1,051,692
	%		32%	195%	78%	75%	150%
2020	Prodoc	-	35,000	365,000	180,000	14,000	594,000
	Real	42,096	34,928	394,912	293,442	28,190	793,568
	%		100%	108%	163%	201%	134%
2021	Prodoc	N/A	N/A	N/A	N/A	N/A	
	Real	61,737	199,317	191,595	407,443	17,678	877,771
Cumulative totals by component (USD)	Prodoc	290,000	590,000	2,530,000	890,000	200,000	4,500,000
	Real	289,815	603,801	2,555,312	852,530	168,954	4,470,412
	%	100%	102%	101%	96%	84%	99%
					Balance to 28/02/2021 (USD)=		29.588
							1%

N/A: does not apply

Source: own elaboration based on data provided by the project.

For result 2 (MACC curves) there is a high expenditure in the second year (2017) with a downward trend for the years 2018, and 2019, resumed the rise again in 2020 and 2021 until a slightly over execution (102%).

For result 4 (MRV Mechanism), the largest movements are observed in 2019 until 2021, also out of line with what was originally planned, but reaches an execution level of 96% in 2021, leaving an approximate remainder of USD 37 thousand. Result 5 (project management) has been relatively constant but almost always under executed, reaching an approximate balance of USD 30 thousand.

Fig. 4: Budget execution by component. The values corresponding to the budget approved by the CEO are presented as a reference only.

With respect to the contracts made, the number of consultancies greater than or equal to USD 60 thousand amount to 22, where the largest amount is concentrated in result 3 (implementation of NAMA) with 11, followed by results 2 and 4 (MACC and MRV curves) with 5.

With respect to the expenditure on project personnel, this amounted to approximately USD 751K for 7 professionals, which corresponded to 16.8% of all project expenses. However, the salaries of the team are distributed in the 5 results, a situation that should be avoided in the future, where the salaries or recurring contracts of consultants should be placed in the management item, for the

purposes of transparency. With regard to co-financing, the commitments made in Prodoc are broken down as shown in Table No. 12.

Table 12: Co-financing commitments of Agreement to Prodoc.

		Ministry of Energy and Mines (MINEM)	Ministry of Environment (MINAM)	Ministry of Economy and Finance (MEF)	UNDP Peru	Total
Outcome 1	Cash		60,000	1,100,000	130,000	**1,290,000**
	In-kind	70,000	20,000		10,000	**100,000**
Outcome 2	Cash		50,000	1,400,000	100,000	**1,550,000**
	In-kind	100,000				**100,000**
Outcome 3	Cash	20,000,000	150,000	5,000,000	70,000	**25,220,000**
	In-kind	200,000	50,000			**250,000**
Outcome 4	Cash		140,000	1,500,000	600,000	**2,240,000**
	In-kind	230,000	30,000			**260,000**
Project management	Cash		200,000	350,000	100,000	**650,000**
	In-kind	200,000	100,000		50,000	**350,000**
Total		20,000,000	600,000	9,350,000	1,000,000	**30,950,000**
		800,000	200,000	0	60,000	**1,060,000**
		20,800,000	**800,000**	**9,350,000**	**1,060,000**	**32,010,000**

At the time of the final evaluation, it was reported that the co-financing by the government had reached USD 96 million (in-kind and in-cash), exceeding by almost 3 times what was committed in Prodoc, as can be seen in Tables 13 and 14. The estimates made on co-financing relate to projects that are or have been implemented by other cooperation agencies. For example, the MEF's cofinancing funds relate to the World Bank's carbon credits project, those from MINEM's relate to the rural electrification program, and an EE project. Contributions from UNDP and MINAM would correspond to various projects. In terms of contributions in kind, they generally correspond to uses of common spaces and expenses, consultancies, overheads, etc.

Table No. 13: Details of the co-financing achieved[38].

	Approved by GEF	***Executed to the Final Evaluation (*)***	***%***
in cash			
GEF Grant	4,500,000	4,389,008	98%
Co-financing (USD)			
UNDP	1,000,000	803,240	S/I
MINEM	20,000,000	73,365,722	367%
MINAM	600,000	951,400	159%
MEF	9,350,000	16,393,660	175%
Subtotal in Cash	***30,950,000***	91,514,022	296%
in kind (USD)			
UNDP	60,000	56,378	94%
MINEM	800,000	everything was considered as in-cash	
MINAM	*200,000*		
MEF	-		
Total in kind (USD)	***1,060,000***	***56,378***	***5%***
Total Project Resources	***36,510,000***	***96,040,812***	***263%***

Table No. 14: Summary of co-financing.

Co-financing (type/source)	***UNDP own funding***		***Government***		***Beneficiaries***	
	planned	***real***	***planned***	***real***	***planned***	***real***
In cash	1,000,000	803,240	29,950,000	91,514,022	0	0
In kind	60,000	56,378	1,000,000		0	0
total	***1,060,000***	***859,618***	***30,950,000***	***91,514,022***	-	-
%		81%		296%		

[38] Own elaboration based on the co-financing reports delivered by the project.

3.2.5. Risk Management

The risks of the project and its management have been discussed in depth in the M&E and Adaptation sections, so only the main findings will be summarized here.

The first observation is that the consistency of the versions of Prodoc that the GoP signed and the one that the GEF CEO approved as a project document was not checked from the outset. The first had a duration and a budget for 5 years, while for the second it was 4 years. Although it may appear to be not associated with the risk management of the project, the net effect was that it increased these risks (due to delays) and negatively impacted the execution of activities, their planning and resources, including M&E, as explained at length in sections 3.2.1 and 3.2.4.

Another key aspect that was discussed in Section 3.2.1 was a slow reaction to the "high risk" of the project (regulatory and political) and that was reported in the first PIR (2017), where measures could have been taken such as advancing the MTR or conducting a direct supervisory visit to seek solutions that could be controlled through project management, such as fostering broader alliances with other actors and /or improving communication with them[39]. In addition, the error in the implementation deadlines could have been detected well in advance.

Finally, the solutions found to overcome the political, social and institutional problems that the country went through were the right ones, in the sense of keeping the new authorities updated and by establishing more lasting relations with government officials having a technical profile.

3.2.6. Environmental and Social Standards

The project has developed the analysis of the Environmental and Social Standards (SES), which evaluated the possible negative and positive effects that its activities could have on the communities where the interventions were developed. This analysis focused on the NAMA for Universal Access to Energy, where no negative effects of the interventions are found. In fact, this NAMA is implemented by the FISE and aims to improve the quality of life of communities by accessing the right to have energy for households and in some cases, for the development of small-scale productive activities. The same happens with the delivery of improved kitchens and stoves, which replace the stoves inside the houses, thus avoiding intra-domiciliary contamination and its adverse effects on the health of communities and families.

These interventions are carried out by FONCODES and FISE staff, who have experience in interventions in marginalized and indigenous rural groups, so they are culturally respectful.

3.3. Results of the project

3.3.1. Overall results (*)

Rating: Satisfactory

Achievement by objectives

Table No. 15 below shows a perspective of the achievement of the project objectives and their qualification, as stipulated by Prodoc and the adjustments made by the project team, the PSC and the MTR. As can be seen, the estimation of achievements has been a difficult task to carry out due to the low suitability of the indicators, which in some cases make the goal achieved seem not very

[39] The 2019 MTR included such findings, which are discussed in section 3.2.1.

relevant in terms of the situation with and without a project. There are cases where the ambition is very low and some had already been achieved prior to the implementation of the project; and there are other achievements that appear partially fulfilled because there are no adequate indicators to measure the additional actions taken, thus damaging the work done by the project implementation team.

With regard to the project's CO2 emission reduction targets, estimates made by the MRV system, the TT and the PIR 2020 indicate that these have been exceeded. Direct CO2 reductions according to Prodoc should reach 960K ton in 10 years, but the project calculates reductions of 22K tons/year for NAMA#1 (photovoltaic systems), 7.9M of avoided lifetime emissions for NAMA #2 (EE), 959K tons avoided for life for NAMA #3 (electric mobility), while the avoided lifetime emissions for NAMA#4 would be 31.7M tons, with a cumulative 8M ton since 2010. Total lifetime direct GHG emissions for on grid and offgrid RE NAMA is therefore 45M ton and the total emissions reductions estimations for the whole project for ten years is expected to be ca. 54Mton of CO2.

Indirect emissions have not been measured so far, but it is estimated that they would be much higher than direct emissions, so it is concluded that the project's emission reduction targets would have been exceeded.

*Table 15: Summary of physical achievements of the project (**Green = achieved**, **Yellow: on the way to being achieved**; **Red: not achieved**)*

Nº	Prodoc goal	Adjusted goal	Achievements	Rating
Project objective: To support the Government of Peru in the development and implementation of appropriate national mitigation actions in the energy sector.				
O.1	Evolution of baseline emissions. Energy GHG inventory detailed enough at regional and sub-sectoral levels to define clear reference conditions for NAMA implementation.	Energy inventory with subsectors at the national level and only for some NAMA-related regions.	Inventory procedure updated and approved by MINAM. Updated inventories and RAGEI 2010-2015. Pending approval by MINAM are the inventories and RAGEI 2016-2018, the latter still in preparation. No information on regional inventories.	***HS*** ***On the way to achieving:*** During the review at the initial workshop, it was agreed to carry out regional inventories only in those directly linked to NAMA, so as not to spend resources on areas that do not benefit the project.
O.2	NAMA portfolio in the power generation and end-use sectors: Full assessment of mitigation options in the energy sector is carried out and the portfolio of potential NAMAs is generated	No change	Defined 4 detailed NAMAs, including 12 mitigation measures.	***HS*** ***Achieved*** It is worth mentioning that the energy efficiency and transport NAMAs were not described in the original project, so there is great merit of the executing team in identifying the probable NAMAs and defining their scope and mitigation measures, so it can be said that the task has been exceeded.
O.3	Implementation of at least two non-grid renewable power generation NAMAs: Fully designed and in execution (one of which focuses on grid electrification with photovoltaic panels), including the application of MRV mechanisms. Goal to 2019: installation of 500K solar panels, equivalent to 50MW of installed energy.	Implementation of at least two connected and non-grid renewable energy generation NAMAs. It is separated into 2 NAMA:1 NAMA from Rural PHOTOVOLTAIC Panels, plus other options such as improved stoves and stoves. Target: it does not change.1 U.S. NAMA	***NAMA #1:*** Universal Access to Sustainable Energy (includes solar panels, improved combustion stoves and stoves, fuel switching, biomass to LPG in stoves and stoves, clean cooking). The goal of installing 500K photovoltaic panels was revised downwards by the GDER, as a survey revealed that there were no 500K homes without electricity, and a new goal of 200K PV installed was set. As of Dec 2020, 213,441 systems have been installed. At this moment it is not known how much the contribution of the other mitigation measures (stoves, stoves, fuel change) would be in terms of the amount of energy produced by these means. ***NAMA #2:*** Renewable Energy and/or EE Remains as NAMA of EE which includes labeling, transformation of the lighting market, energy audits in the public and private sector, development of energy audit regulations.	***HS*** ***Achieved:*** ***NAMA #1***The goal was lowered from 500K to 170K and 17 MW of installed power for PV systems. However, this NAMA was expanded to include other options not considered in the prodoc, but there are no adequate indicators to measure its success. As per the TT elaborated by the project during the TE, the PV systems generated 285MW and reduced an estimated of 22 Ktons of CO2 annually. ***NAMA#2:*** this NAMA was added during the execution of the project, and is one of the most complete achieved, however, there are no adequate indicators in the Prodoc to measure its success. A NAMA result from EE was then introduced, which is said to be an indicator, but there are no targets to verify what was desired. In any case, it is a very important NAMA. According to the TTs prepared for the final assessment, the estimate of the avoided lifetime emissions would reach 7.9M tons of CO2.

Nº	Prodoc goal	Adjusted goal	Achievements	Rating
Project objective: To support the Government of Peru in the development and implementation of appropriate national mitigation actions in the energy sector.				
O.4	Implementation of at least two renewable energy NAMAs connected to the power generation grid: Fully designed and under implementation, including the application of MRV mechanisms.	It remains as renewable energy connected to the grid and/or U.S. It is separated into a NAMA for the promotion of electric transport and another for power generation with a grid connected NCRE.	***NAMA # 3:*** Replacement of the energy matrix in the transport sector (promotes electric mobility in buses and taxis in Lima). *NAMA # 4:* renewable energy connected to the grid (remains as NAMA that promotes legal and regulatory instruments so that the generation of electricity < 20 MW using NCRE can compete with traditional generation, with the aim of having a 5% share of the country's energy matrix.	***S*** ***On the way to achieving:*** ***NAMA #3:*** This NAMA is an activity to promote electric mobility, with demonstration activity whose objective is to estimate the viability of this technology, its business model, fleet performance and preparation of proposals for regulations, which still need to be approved to remove the barriers to this type of transport. According to the TT developed during the final evaluation, the estimate of CO2 lifetime emissions avoided would reach 959K tons. ***NAMA #4:*** This NAMA has been in place since before the project began in 2010 and has made extensive progress in introducing NCRE into the power grid. Nama's project-driven goal was to introduce additional regulatory changes for solar and wind power to allow greater competition with traditional power generation, through pilot project demonstration, information generation, and energy management models. Unfortunately, as with the other NAMAs, there are no adequate indicators to measure their progress and achievements, and this situation is detrimental to the project's valuable effort to achieve favourable conditions for the further introduction of NCRE into the market. According to the TT prepared during the final evaluation, the avoided CO2 lifetime emissions are estimated at 31.7M ton, while the PIR 2020 indicates a cumulative CO2 reduction since 2010 of approx. 8M ton.
O.5	Creating and operating MRV protocols	Protocols and procedures for NAMAs in the MRV energy sector fully designed and operational	A specific MRV system is created for each NAMA and its respective mitigation measures, and a website for the MRV is developed at the MINEM. This system is complex and is beginning its operation in MINEM.	***S*** ***Achieved:*** The project developed an MRV system for each NAMA and its mitigation measures and installed an automated tool to track NAMAs on the MINEM server. This system is complex and requires uploading a lot of information and, at the same time, analyzing and technically reviewing many mitigation measures that require specific knowledge. With only one person operating the system, it does not seem sufficient considering the aforementioned requirements.
O.6	Generation of non-conventional renewable energy connected and not connected to the National Grid.	NCRE is expected to have a 5% share of the energy matrix by the end of the project.	At the beginning of the project (2016), the NCRE's share was 3.5%. As of April 2020, the NCRE contribution was 10%.	***S*** ***Achieved:*** However, there remains the doubt that it would have happened with this figure in case there was no project, apparently the inertia of the previous bidding processes has contributed to this high

Nº	Prodoc goal	Adjusted goal	Achievements	Rating
Project objective: To support the Government of Peru in the development and implementation of appropriate national mitigation actions in the energy sector.				
				participation. This indicator is not very specific to the project and does not do justice to the efforts deployed to achieve the expansion of this participation of NCRE in the energy matrix of the country.
O.7	Direct and indirect GHG emissions resulting from the project: Reduction of direct emissions of 962K of CO2 and indirect emissions by 1.6M ton of CO2 over a period of 10 years.	Although the target is considered very low and not in line with the government's targets of 14M ton CO2 by 2030, it is left as it is.	It is estimated that the target has been exceeded, as the direct reductions for the 4 NAMAs calculated through the MRV system would be between 40-90 million tons for the period 2020-2030. Indirect emissions cannot yet be calculated, as they correspond to the long term, but it is estimated that they will also be exceeded.	***S*** ***Achieved:*** Total emissions reductions estimations for the 4 NAMAS for ten years is expected to be ca. 54Mton of CO2. However, there remains the doubt that it would have happened with this figure if there was no project. The indicator is inadequate, as the real achievement is that these reductions - which were already occurring before the project - have been measured by a system that did not previously exist.

Achievements by Result (*)

It is worth mentioning that, despite the delays associated with a high learning curve, the rotation of authorities in the country and the pandemic, the project was able to adjust its goals and define the scope of its NAMAs to a level of demand higher than that originally stipulated by Prodoc. Unfortunately, in several cases this effort was hidden due to the lack of consistency and specificity of the project's indicators, a situation that was discussed earlier in this report.

In the period 2016-2019, the project was able to organize the activities and products in such a way that it focused first on a chain of results that could be carried out in parallel (planning, execution studies, coordination) with mid-level government partners, some private companies, community organizations and consultants that gave some continuity to the actions that delivered inputs to the ministries involved. In this way, products were obtained for regulatory discussion (with indeterminate deadlines that had their own process) and at the same time began to implement actions such as the definition of NAMAs and their 12 mitigation measures with baseline, BAU, emission factors, MRV system, inventories and RAGEIs.

It is worth mentioning that from the first quarter of 2020 the COVID-19 pandemic began in Peru, which delayed all field activities and affected trainings, workshops and face-to-face coordination with the actors, making most of these online.

It should be noted that a large number of studies of various kinds were carried out, such as on BAU determination, methodological guides for energy inventory processes, detailed NAMA designs, emission factors and proposals for rural women's technical school on NCRE technologies and their repair, installation and maintenance (solar panels, improved stoves).

As a summary of this section, it shows the ratings for each outcome and sub-outcome that fall between "Highly Satisfactory and Satisfactory", while some are considered "Moderately Satisfactory", such as the electric transport NAMA has yet to resolve important gaps, but it has been an enabling activity to run a larger-scale NAMA, the MRV protocol had to be approved by the PSC[40]. On the other hand, MINAM also has to approve the National MRV System, which takes aspects of the MRV of the project. The result that is considered "moderately unsatisfactory" is that of the inclusion of climate change indicators within the PPRs. The review of some of these MEF PPR programs indicates that they are indeed related to NAMAs, but do not include any type of indicator for climate change, they just contain performance indicators for these programs[41].

The details of the ratings for each outcome and sub-result of the project are shown in Table No. 16 below.

[40] The last discussion in the CDP about the MRV system was in November 2019, after there is no allusion in the minutes about whether this was approved or not. Interviews also do not indicate that the system has been approved.

[41]Sample included the following budget programs: i) 0093: Productive development of companies; ii) 0096; iii) 0137: Development of science, technology and technological innovation; iv) 0145: Improvement of the Quality of the Electricity Service; (v) 0046: Access to and Use of Rural Electrification.

Table 16: Detailed rating for each project outcome.

No.	Description	Goal at the end of the project	Situation Final Evaluation	Rating	Comment
1	***Baseline of GHG emissions at national and regional reference level (BAU) for the established energy sector.***				
1.1	A GHG inventory procedure validated by the relevant energy entities and consistent with INFOCARBONO and the National Energy Balance 2014	Procedure validated, approved and implemented in the last quarter of 2016.	The institutional procedure had already been approved in 2014, with the creation of the Infocarbono system (Supreme Decree 013-2014-MINAM), which creates the institutional structure, procedures and responsibilities of each institution that contributes with sectoral GHG information. The project contributed to this system with the following outputs: (i) a methodology for updating energy inventories approved by MINAM; (ii) inventory and RAGEI for 2014 approved by MINAM; (iii) energy inventory update 2010-2018; (iv) inventory and RAGEI for 2016 under review by MINAM since 2019; (v) MINEM is updating the inventory of the 2018. No information is available on the development of subnational inventories in NAMA-related regions.	HS	The way of reporting the project in the PIR does not make it possible to visualize what were the main changes introduced to the inventory methodology of 2014, but finally it was clarified that there was no document for inventories before starting the project, only an Excel with errors. Although the RAGEI explain the methodological improvements introduced, there is no same explanation for each of the inventories or for the guides published by MINAM, making it difficult for an outsider to identify the new contributions of the project in the methodological aspects. So far, the only RAGEI and energy inventory published in MINAM are for the year 2014.
1.2	A final report of a GHG inventory based on the approved procedure divided by sub-sector developed during the year 2017	Updated inventory based on approved procedure with latest available information and required years.	The RAGEI 2016 is under review by MINAM since June 2019. So far, the only RAGEI and energy inventory published in MINAM are for the year 2014. See explanations in 1.1 for more information on what the project has achieved.	HS	The one accepted by MINAM for the year 2014 is taken. In this regard, the project updated the series of GHG inventories 2010-2016 and currently MINEM is working on updating the one corresponding to 2018.
1.3	BAU systematized and publicly available baseline reports for selected subsectors during 2014 and for a period not less than 2013 to 2021.	BAU baselines approved and in accordance with the procedure and results of the PlanCC by December 2016.	(i) The BAU for each subsector initially covered the period 2013-2021, which was changed by the project to 2010-2030 to align it with the iNDC of Peru; (ii) BAU have been included in NDV national communications along with mitigation measures; (iii) the CC Plan for the NAMA 12 mitigation measures was updated, due to the change in methodology and more information incorporated by the project; (iv) A guide with a procedure for calculating the national network emission factor (SEIN) was developed and sent to UNFCC for approval; (v) studies were completed to determine firewood emission factors and the transport sector. The following emission factors were developed: (i) national electricity grid (SEIN); (ii) wood-burning stoves; (ii) transport sector 12 mitigation actions were defined within the 4 NAMAs: 1. Renewable energy combination 2. Distributed generation 3. Supply of electricity with renewable energy in off-grid areas4. Clean cooking 5. Transformation of the lighting market in the residential sector 6. Replacement of public sodium vapor luminaires with LED luminaires 7. Energy Efficiency Labeling 8. Energy audits for the public sector	S	Having baselines for each NAMA and subsector, together with the determination of emission factors specific to the country is a great achievement, considering that previously this systematization and methodology were not installed in the country. A subsequent work of the authorities would be the preparation of regional inventories and their updating, which will require coordination actions of the MINEM with regional authorities to prepare these inventories.

No.	Description	Goal at the end of the project	Situation Final Evaluation	Rating	Comment
			9. Replacement of low-efficiency lamps with LEDs in the public sector 10. Energy efficiency in the industrial sector 11. Lamp replacement in the commercial sector 12. Promotion of electric vehicles at the national level.		
2	Prioritized Mitigation Actions and Identified MACCs documents for NAMAs in the selected subsectors designed, and 4 NAMAs prepared for implementation.				
2.1	1 sectoral MAC curve and 2 sub-sectoral MAC curves	Report of the MAC curve in the sectors and subsectors inside and outside the energy grid approved by the Project Management Committee.	The project updated the MACC values previously developed in PlanCC. At the time of the final evaluation, the project had engaged a consultancy to: (i) update the MAC cost data related to the mitigation measures of the 4 NAMAs and (ii) develop a tool for the development and updating of mac curves in the future.	HS	In the STUDY of MAC Curves developed by the Project, the elaboration, analysis and development of the MACC of twenty (20) actions within eight (08) mitigation measures and the four (04) NAMAs were fulfilled.
2.2	NAMA's activities portfolio and card files	Portfolio of NAMA activities at the conceptual design level for power generation and end-use.	Defined 4 NAMA: 1. Promotion and improvements in energy efficiency measures through regulatory changes and financial mechanisms promoting energy efficiency in all sectors. 2. Promotion of greater NCRE participation in interconnected systems. 3. Improvements to sustainable energy solutions in non-grid areas, using NCRE resources. 4. Transformation of the energy sector through regulatory changes and financial mechanisms that promote a transition to electric transport.	S	It is a very important advance for the country to have updated, systematized and prioritized the different mitigation measures, using objective criteria and methodologies for this purpose.

No.	Description	Goal at the end of the project	Situation Final Evaluation	Rating	Comment
2.3	Policy and financing instruments for the implementation of NAMA in two selected subsectors defined.	Specific set of policies and financial instruments defined to support in-grid and off-grid NAMAs, and energy efficiency.	The project developed a diagnosis and a proposal for regulations for distributed energy generation (NAMA 1: NCRE connected to the grid) so that this type of energy has a 10% share, granting access to free and regulated markets for solar and wind energies, currently excluded from the market. The proposal has been partially taken up by the OSEGERMIN, which has left out solar energy (it does not recognize firm power) in the regulatory project submitted to public consultation. Regulatory proposals have also been developed for EE in the public and private sectors, electric and hybrid transport, rural electrification, clean cooking and grid connected NCRE. Other proposals: 1. new power-to-firm calculation procedure for solar and wind energy generation, to enter into contracts with regulated and unregulated customers. 2. Draft law and supreme decree to promote electric and hybrid transport and technical standards for charging stations (under review in MINEM). 3. Inclusion of clean cooking kitchens in the FISE program.4. Management and business models for rural electrification program tenders. 5. Elimination of the ISC for new electric vehicles and increase of the same for Diesel vehicles (approved and published)6. Draft regulation on distributed power generation (pre-published, leaves out solar energy due to differences with OSIGERMIN).	HS	This goal is achieved, pending the approval of these instruments by the corresponding institutions. It is worth mentioning that the proposals of firm power and hybrid transport have a high resistance in private actors, so a commitment from the MINEM authorities will be required to continue promoting these reforms.
			The framework law on CC was approved and published in 2019. The project succeeded in including the 4 NAMAs in execution as objectives of this law. The finalization of the regulation that will include the 12 mitigation actions contained in the 4 NAMAs promoted by the project would be pending. We also worked with COFIDE and the Savings Banks to explore financial mechanisms (green credits), although these efforts ultimately failed.		The finalization of the regulation that will include the 12 mitigation actions contained in the 4 NAMAs promoted by the project would be pending. Each NAMA implemented by the project contains policy instruments that have been defined as enabling conditions for its implementation.
2.4	3 formal training sessions per subsector, in relation to the design of mitigation programs.	The training sessions developed per year, including the content and methodology of evaluation. Two annual training sessions (one per sub-sector) will be held for the duration of the project.	2017: (i) 2 inventory training sessions; ii) a LEAP software training.2018: 2 training workshops given by NREL experts on the use of the sun map tool2019: 10 workshops for women of the e-woman school in different provinces.	HS	Achieved, over 16 training sessions and workshops for the public and private sector were implemented, exceeding the expectations of the prodoc. It would have been advisable to make some evaluation of how the different actors are using this new knowledge.

No.	Description	Goal at the end of the project	Situation Final Evaluation	Rating	Comment
2.5	Detailed design of 4 NAMAs	Design of NAMAs approved by the Project Steering Committee, based on a list of evaluated and prioritized mitigation actions; including sources of funding containing coordinated institutional arrangements, and ready to start the pilot phase.	Instead of rapid design they made diagnoses for these NAMAs. In 2018, 4 NAMAs were designed: 1. EE 2. ER connected to the Network. 3. Electric Transport 4. Universal Access to Sustainable Energy	HS	CDP approved this NAMAs' portfolio in 2018.
3	Entities related to grid-connected renewable energy (all technologies excluding large hydropower); (ii) off-grid renewable energy subsectors and (iii) energy end-use related to energy efficiency that will contribute to achieving compliance with Peru's iNDC.				
3.1	Execution of NAMA activity #1 (off-grid renewable energy with photovoltaic panels)	NAMA photovoltaic electrification is fully operational and supports the installation of 500,000 photovoltaic panels. The installed capacity is expected to be 50 MW. Fully functioning MRV mechanisms.	(i) 213,441 photovoltaic panels installed (21 MW); (ii) delivery of 1.5 million LPG stoves; iii) implementation of 2 pilot projects for clean cooking in Cajamarca and Lambayenque and Jaén city; iv) distributed 470K kitchens improved with LPG (800K families benefited).	S	The target was lowered from 500K to 170K and 17 MW of installed power for photovoltaic systems. However, this NAMA was expanded to include other options not considered in the prodoc, but there are no adequate indicators to measure its success.
3.2	Implementation of the base of the off-grid Payment System with photovoltaic systems.	***Mechanism established*** for payment upon delivery of off grid PV based energy services, based on independent assessment of compliance with NAMA MRV protocol	2017: solar panel payment mechanism design;2018: mechanism in implementation2019: i) mechanism implementation continues, with delays in account reports of approx. 6 months; ii) development of proposal improves rural electrification program with pilot project.2020: pilot project on hold due to pandemic.	S	Although the pilot to improve the payment system is suspended, the result is considered to have been fulfilled. The government should continue this improvement proposal, considering the high degree of arrears on the part of the beneficiaries (approx. 70%)
3.3	Implementation of NAMA activity #2 (renewable energy and/or energy efficiency) Implementation of NAMA activity #2 (renewable energy and/or energy efficiency)	NAMA energy efficiency fully operational, MRV mechanism in full established	This NAMA 2 was replaced by Energy Efficiency, which includes the following 7 mitigation measures: 1. Transformation of the lighting market in the residential sector 2. Replacement of high-pressure sodium vapor (VSAP) street lighting lamps with LED lamps 3. Energy efficiency labelling 4. Public Sector Energy Audits 5. Replacing low-efficiency lamps with LED lamps in the public sector 6. Energy Efficiency in the Industrial Sector 7. Replacement of lamps in the commercial sector	S	It can be considered partially fulfilled, because the progress is mainly in measure No. 3. The corresponding commitments and plans of the institutions involved must be made to implement the remaining measures.
			Progress:2017: implementation of project website and 17 EE guides for 7 sectors.2018:i) implementation of 9 categories of labeling equipment (washing machines, dryers, refrigerators, motors, water heaters, boilers, AC, lighting and multiple lamps), ii) registration design for ESCO under review at MINEM; iii) work with FEPCMAC and GIZ for the development of financing mechanisms and green credits.2019: study to implement energy audit in public buildings (FONAFE), a military base and 2 public hospitals.2020: i) development of technical standards to standardize certifications for EE labeling; ii) implemented EE's minimum standards for public	S	Achieved: The NAMA is in implementation and measures must be taken for its continuation, such as the approval of the ESCO registry, the implementation of energy audits and continuity in the development of financial mechanisms.

No.	Description	Goal at the end of the project	Situation Final Evaluation	Rating	Comment
			procurement (PeruCompras).2021: ESCO registration criteria still under review.		
3.4	Implementation of NAMA's #3 Activity (grid-connected renewable energy and/or energy efficiency).	NAMA Electric Transportation fully operational	2017: i) implementation of diagnostic consultancy to evaluate pilot projects for electric mobility; ii) consultancy to develop cost-benefit proposal for regulatory changes to promote and increase electric mobility.2018: i) NAMA implementation begins electric transport in Lima with a bus; (ii) ToR to assess emission factors in the transport sector; iii) support for obtaining a second electric bus.2019: i) inter-institutional agreement to implement pilot electric bus; ii) implementation of a market study for EE; (ii) public awareness campaign; (iii) working with OSCE to include EE standards in government procurement; (iv) criteria for ESCO registration under evaluation; v) start of assessment of EE labeling impacts on the market.	MS	It cannot be considered a NAMA in execution, since it is a demonstration activity whose objective is to estimate the viability of this technology, its business model, fleet performance and elaboration of proposals for regulations, which still need to be approved. The project in its output matrix does not define what it is a NAMA in full implementation. To implement this NAMA, MINEM and MTC will have to agree on a joint work to carry out the necessary regulatory reforms to allow the entry of electric transport into the country.
		MRV mechanisms in full operation	Achievements:2017: development of an MRV system for monitoring GHGs associated with energy efficiency measures.2019: i) completes study of bus emission factors in public transport; ii) finalizing emission studies in taxis.2020: MRV for rural electrification (photovoltaic systems) and the MRV platform in MINEM completed.	S	Each NAMA has its own MRV, and a centralized database has been implemented in the MINEM for the energy NAMAs, which were broken down into 12 mitigation measures. http://sismrv.minem.gob.pe/
3.5	Implementation of nama #4 activity (grid-connected renewable energy)	NAMA connected to the fully operational network	Achievements:2017: i) biannual tender for renewable energies to achieve 5% NCRE contribution; (ii) ongoing regulatory reform on distributed generation; iii) development of a model for generation with NCRE in use by MINEM to evaluate regulatory changes; (iv) development of a new 10-year energy plan; v) proposed regulations to encourage the introduction of solar and wind energy to recognize firm power from these NCRE, under review by the MINEM; vi) pilot development of PV power generation in MINEM and 7 universities in Peru to support regulatory development on distributed generation; (vii) development of the map of Peru in conjunction with NREL; vii) proposal for block tenders with quotas for NCRE under review by MINEM.2019: delivery to MINEM of the detailed design of NAMA 4 with MRV protocol; ii) proposal for the V energy tender identifying strategic areas where NCRE can replace power generation with diesel; iii) development of ToR for CAF project on study to develop portfolio of ER projects at the pre-investment level in Iquitos and Loreto; iv) study with NREL to evaluate the solar potential in Iquitos to replace power generation with diesel.	S	NAMA #4 has 2 mitigation measures and MRV protocols: 1. Renewable energy mix 2. Distributed energy This NAMA has been in implementation since before the project began in 2010 and has made extensive progress in introducing NCRE to the electricity grid. Nama's project-driven objective was to introduce additional regulatory changes for greater penetration of solar and wind energy to allow greater competition with traditional energy generation and also to promote self-generation, through demonstration projects, information generation and energy management models. Unfortunately, as with the other NAMAs, there are no adequate indicators to measure their progress and achievements, and this situation is detrimental to the project's valuable effort to achieve favorable conditions for the further introduction of NCRE into the market.
		Nama activity in full operation. Tracking of the contribution of the increase in energy participation renewable by 2.5% for the	At the beginning of the project (2016), the NCRE's share was 3.5%. As of April 2020, the estimated contribution of NCRE was 10%. 2018: i) An MRV is designed where data from the first 4 energy production tenders (2010-2018) incorporated into the MRV system were incorporated; ii) NCRE is 7% equity in the matrix	H S	Achieved The MRV system is located within the MINEM database and is in operation for this type of NAMA.

No.	Description	Goal at the end of the project	Situation Final Evaluation	Rating	Comment
		end of the project and 5% in 2020 will be taken. Fully functioning of MRV mechanisms.	(including small hydropower), ii) Target of direct GHG reductions of the project achieved only by this NAMA.		
3.6	Implementation of MRV protocols and monitoring of NAMA-related GHG emission reductions	MRV protocols are used to track the following objectives of the project: Reduction of emissions: direct 962,000 tons of CO2 in 10 years Reduction of emissions: indirect 1,600,000 tons of CO2 in 10 years.	2017: i) MRV protocols designed for EE, grid-connected NCRE and electric transport; (ii) proposal for PV. 2018: NAMA NCRE connected to the grid with reductions greater than 1 million ton CO2 2019: i) MRV for the 4 NAMAs submitted for MINAM review, which include 12 mitigation measures; 2020: (i) UNFCC revised the emission factors for the power grid; ii) MRVs implemented for tenders 1-4 projects that include NCRE. 2021: NAMA NCRE connected to the grid reduced 8M ton of CO2	HS	Achieved: The 4 NAMAs have their MRV protocols designed and an online MRV system was also created for the MINEM. However, the implementation and adoption of this system by MINEM would remain pending, in terms of appointing sufficient and specialized personnel to follow the different mitigation measures, which require qualified personnel to review these actions.
4	mechanism for the measurement and accounting of actual GHG emission reductions from mitigation actions in the power generation and end-use sector.				
4.1	MRV protocol designed	MRV protocols for NAMAs in the energy sector designed and approved by the Steering Committee	Achievements: 2019: MINAM incorporates MRV guidance into the protocols of all NDCs. 2020: (i) REGISTRATION OF NAMAs WITH UNFCC pending completion of the national MRV registration, which is responsible for MINAM; (ii) MINAM formats for registries	MS	The system is designed but has not yet been approved by the CDP or MINAM. Steps should be taken to ensure that the national MRV registration is finalized by MINAM and then the NAMA registration with the UNFCC is finalized.
4.2	Application of the energy sector of the MRV register	Energy sector has a MRV register.	Each NAMA has its MRV defined, but it has not yet been approved by the CDP or MINAM. It will not enter into application until MINAM has developed the national MRV system.	MS	This system will not come into application until MINAM finishes the national MRV, where the project has contributed with methodologies, guides and training.
4.3	Integrating climate change mitigation into the results-based budget program of the Ministry of Economy and Finance.	Climate change-related indicators incorporated into the results-based budget programme of the Ministry of Economy and Finance.	MEF has incorporated into its PPRs a number of budget programs (7) related to NAMAs, whether in energy efficiency, rural electrification and others. However, after reviewing a sample of these budgets for 2019, there are no indicators related to climate change, but rather they are indicators of program effectiveness. The new climate change law contains provisions for financing NAMA activities, but in order for it to be operational, a regulation implementing the law must be approved, a situation that has not occurred so far.	MU	The review of some of these MEF PPR programs indicates that they are indeed related to NAMAs, but do not include any type of indicator, but rather are performance indicators of the programs. Budget programs are identified and under implementation. MIDIS already has a PPR for clean cooking within the PPR for the FONCODES program, and there is also the PPR set for the massive rural electrification program with SFV. The regulations of the climate change law must be developed to ensure funding for the MRV of the mitigation measures included in the NAMAs. The challenge is that these efforts must be realized in the short term so that this indicator can be considered fulfilled.

No.	Description	Goal at the end of the project	Situation Final Evaluation	Rating	Comment
4.4	Application of MRV procedures	MRV procedures implemented in all energy related NAMAs activities	The MRV system has been developed for each NAMA and the 12 associated mitigation measures, in addition to which a database platform was installed in MINEM to populate the respective data. So far, data has been being implemented and emission reduction records calculated for universal energy access NAMAs, grid connected NCRE, the transport NAMA pilot and the EE pilot (results of EE public sector audits, market studies on product labeling). MINAM and MINEM officials have also been trained in the use of this platform.	S	THE DGEE-MINEM has appointed a professional to manage the MRV system for when the project is finished. However, the complexity of the system, its operation and the different types of measures that are included in this MRV make a single person insufficient, so it will be necessary for the ministry to place greater resources for this, either with more staff or by doing some kind of organization of the system with the current officials so that each one has his role and responsibility in the revisions of the current and future NAMAs that are generated.

3.3.2. Relevance (*)

Rating: Highly Satisfactory

The project corresponds to a GEF-5 and is part of the Climate Change Focal Area and is in line with 3 focal objectives: CCM-2 (established and operational financial mechanisms and delivery), CCM-3 (Favorable policy and regulatory environment created for renewable energy investments) and CCM-6 (Human and institutional capacities of strengthened beneficiary countries).

With regard to UNDP, the project is consistent with the outcome of the 2012-2016 Country Programme "Strengthened institutions for the design and implementation of low-emission and climate-resilient development strategies and/or plans".

With respect to the Country Programme 2017-2021, the project is in line with Outputs 1.1: "Strengthened national and subnational capacities to implement sustainable and inclusive development policies, plans or other instruments" and 1.2: "Strengthened national and subnational capacities for the sustainable management of natural resources, ecosystem services, adaptation and mitigation of climate change" under Outcome No. 1: "Inclusive and sustainable growth and development".

This project is relevant for the country, because it is a signatory to the UNFCCC, the Kyoto Protocol and the Paris Agreement, so it must report its GHG inventories, biannual reports and also has voluntary emission reduction commitments in the context of NAMA. According to the diagnosis made, the country has a lot of experience in the development of mitigation measures projects and also has energy policy goals to achieve a 40% share of renewable energies in the country's energy matrix. For this, plans have been developed and support requested from different agencies to create mechanisms to promote renewable energies in transport and energy efficiency mainly. However, there is a sectorized and uncoordinated institutionality that needs capacity building to achieve its emission reduction objectives in the energy sector, in addition to systematizing the mitigation actions in progress, with the aim of having measures designed, implemented, monitored and reported according to methodologies recognized as NAMA by the UNFCC.

Recently, Peru passed a climate change law that sets some provisions for the NAMAs addressed by the bill. On the other hand, this is complemented by several other activities with which the project may cooperate, such as the energy efficiency programs implemented by GIZ and SDC, as well as pilot projects to promote electric public transport of the IDB and another called TransPerú, with which the project has coordination and cooperation.

3.3.3. Effectiveness and efficiency (*)

Effectiveness (*)

Rating: Satisfactory

As mentioned above, the activities carried out by the project contribute directly to the achievement of the UNDP country programme objectives, in terms of strengthening the capacities of the participating institutions, as well as to the achievement of the country's climate change targets and the millennium development goals.

With regard to the achievement of the relevant objectives, it can be mentioned that the project has delivered the key methodological tools that the country needs to compile its inventories,

systematize and design NAMA, country-specific emission factors and create relevant knowledge to support efforts to promote NCRE in the country. It also contributed to another key area, such as the development of regulatory proposals based on technical studies shared with different counterparts.

Another well-achieved area was the cooperation to complement other projects and institutions, such as the IDB and GTZ, where it provided technical inputs (revision of TDR for renewable energy studies) and also proposed complementary activities necessary for NAMA (feasibility studies electric mobility and energy efficiency).

In addition, although the conclusion remains on the inadequacy of the results statements and their target indicators, it formally met and exceed the NAMA's CO_2 emission reduction expectations and the participation of NCRE in the country's energy matrix.

Although not all NAMAs driven by the project are fully operational (NAMA energy efficiency and transport in process), the NAMA of solar panels reached its established goal. It should be noted that the NAMAs developed are of greater scope, complexity and detail than stipulated by Prodoc and are marching according to their designs and projections to 2030.

The project leaves an MRV system that - although it is not fully operational and will need greater support from MINEM to appropriate and implement it - it can be concluded that this objective will be achieved in the short or medium term, especially with regard to energy efficiency and rural electrification measures, which are part of the responsibilities of this institution.

Therefore, as a conclusion it can be said that the project was "very satisfactory" in the reduction of emissions, delivery of relevant technical products for inventories, identification, selection and design of NAMA, "satisfactory" in the delivery of regulatory proposals, an MRV with possibilities of scaling, "moderately satisfactory" in the execution of the NAMAs, but with possibilities of materializing in the near future and "moderately unsatisfactory" in getting to include indicators of climate change in the Budgets By Result of the MEF.

By considering a balanced view of all the factors associated with the project, it can be concluded that the project is "**Satisfactory**" in terms of effectiveness.

Efficiency (*)

Rating: Satisfactory

As mentioned before, the project administration expense was close to 16.8% of the total. The size and specialty of the executing unit seems appropriate to the project needs, however, there was a need of an M&E specialist to take care of the project's metrics to more effectively track its progress.

The annual expenses show that all are under-executed with respect to Prodoc's estimates for the first 3 years of implementation, where from the fourth year (2019) disbursements are recovered, leaving an approximate balance of USD 30 thousand as of April 2021.

The contracted products and services were executed on time once the project acquired a good execution dynamic. Procurement was relatively quick considering the initial backlogs and the context of the project. This was due to the fact that the procurement process was carried out entirely by the executing unit, as per NIM modality rukes and using established UNDP practices. The ToR, timing and selection of services were approved internally by ad-hoc teams of MINEM where

UNDP had a supervisory role. Contracts and disbursements were made by UNDP on the instructions of the executing unit, which gave the go-ahead for each deliverable of the project.

According to the sources consulted, this arrangement allowed for rapid processes of adequate technical quality, favoring the efficiency of the project activities.

Unfortunately, from the first quarter of 2020, the pandemic affected the execution of contracted services, especially those related to field visits, workshops, surveys, etc., this being one of the main reasons for the remaining balance of contracts that have not been able to be executed properly.

The use of resources was favored by cooperation with complementary projects, such as the feasibility of electric transport with IDB, where the project provided technical inputs. The cost of the feasibility study was approximately USD 400 thousand, which was fully paid by IDB, and the results were used as inputs for the transport NAMA. Similarly, the collaboration with GIZ to design the NAMA of modified kitchens and proposals to modify the FISES regulations. Information on the cost of this study is not available, because it was fully paid by the GIZ. Mention may also be made for the study on solar resources in Peru both in Iquitos and the south of the country, carried out by the National Renewable Energy Laboratory (NREL), requesting technical assistance from the Project through the EGE DGEE.

Another important factor was that the exchange rate in the period 2015-2021 favored the project due to the increase in the price of the dollar, so that the resources in soles increased.

Also important was the allocation of project resources to conduct the gender study specific to the NAMA of Universal Access to Sustainable Energy, where a proposal for an energy school for women (e-Women) for the regions where NAMA was implemented was also developed.

With regard to the 2 extensions of the project approved by UNDP, it should be mentioned that these could have been avoided if the differences in the project execution timeline and disbursements existing in the 2 versions of Prodoc had been detected in time, where the one managed by the project coordinator (signed by the GoP) established an execution period of 5 years, while the one approved by the GEF stipulated 4 years. This error remained for about 4 years, which meant an impact on the planning of the activities, mainly those of the second half of the project, as well as its extension in another year.

In conclusion, resources were managed efficiently, and services were executed on time once became operational and additional resources were attracted to the project. The only improvement that would have been necessary was the hiring of an M&E professional, which could have contributed to greater monitoring, risk analysis and improved project metrics.

For the reasons mentioned above is that the ***efficiency*** of the project is rated as "**Satisfactory**".

Taking a balanced view on the strengths, challenges and circumstances under which the project was implemented, the combined rating for effectiveness and efficiency is estimated as "Satisfactory".

3.3.4. Rating for the overall outcome of the project

Following UNDP guidelines for this section, Table No. 17 shows the qualification for the project outcome.

Table 17: Overall rating of the project outcome

Evaluation of outcomes	*Rating*
Relevance	*Highly Satisfactory*
Effectiveness	*Satisfactory*
Efficiency	*Satisfactory*
Overall rating of the project outcome	***Satisfactory***

3.3.5. National ownership

The project has its origin in the National Energy Policy of Peru 2010-2040 (DS 064-2010-EM), through which it is desired to diversify the energy matrix with emphasis on renewable sources and energy efficiency. Consistent with the above, the country set itself the objective of voluntarily reducing GHG emissions through the modification of the national energy matrix, so that electricity generation through Non-Conventional Renewable Energies (NCRE) and hydroelectricity would represent at least 40% of the total energy generated in the country.

On the other hand, the project is closely linked to the Plan for Access to Universal Energy (2013-2022) executed by MINEM, and to the commitments to develop and report national GHG emissions as a member of the UNFCC and to the biannual updating reports, under the responsibility of MINAM.

Some results of the project have been incorporated into processes of some ministries, such as methodologies for developing GHG emission inventories for the energy sector, which was approved by MINAM and are currently in use by that entity. The same applies to the methodologies for implementing an MRV system under development by MINAM, which uses the inputs of the MRV system for NAMA developed by the project, and which is in its initial stage permanent use in the DGEE-MINEM.

Throughout the process of implementing the project, actors from different entities have participated, such as the MTC, MINAM, MEF and Produce. It is worth mentioning that more in-depth work would be needed with regional and local authorities, as well as with civil society organizations and companies in the sector to generate a more systemic adoption of the project results.

The adoption by the government agencies involved of regulations and standards driven by the project has been mixed: a decree to eliminate the selective consumption tax for hybrid vehicles (MEF), a Supreme Decree including provisions on the charging infrastructure and supply of electric energy for electric mobility (DS 022-2020-EM) and the Climate Change Act (MINAM) that incorporates funding provision for the project's NAMAs have been all approved.

However, there are key regulatory proposals that have problems in their approval, such as the recognition of the firm power capacity for electricity generation with solar energy, the distributed generation regulation, the Peruvian technical standards for the charging infrastructure of electric vehicles, and changes in the bidding mechanism of the rural electrification program (MINEM).

3.3.6. Cross-cutting issues

The project has additional edges covering social, cultural and economic issues. In this regard, it is complementary to areas of action of the UNDP country program in terms of enabling inclusive and sustainable development and combating extreme poverty. Indeed, the NAMA of universal access to energy, focuses on bringing electricity, heating and kitchens to the poorest households in rural

areas, without distinguishing ethnicities. It has also trained many rural women to maintain and repair photovoltaic panels and improved kitchens, so that they provide a service to their communities.

From an economic point of view, the NAMA for grid-connected renewable energy promotes greater competition in the electricity market by allowing the entry of other players, while the introduction of electric and hybrid transport will allow cities that are less noisy, less polluted and with better standards of comfort and safety for passengers than those currently in place.

3.3.7. Sustainability (*)

Rating: Moderately Likely

Financial Resources (*)

Rating: Moderately Likely

Peru, like all countries in the region, has been hit hard by the COVID-19 pandemic, resulting in 11% drop in GDP and a drop in tax revenues in 2020, which has pushed 2 million people into poverty. It is estimated that by 2021 there will be a strong rebound that will translate into accelerated public investment, with GDP that will not return to pre-pandemic levels and also with a low recovery in private spending[42].

In this context, it is expected that the country's priorities will be focused on economic recovery and overcoming the health crisis. Some programs such as the NAMA of universal access to sustainable energy will continue to operate with certain decreases in their budget and restrictions on mobility, but this is a program with permanent funding from the government, as well as the program of improved stoves so in the medium and long term this NAMA will be maintained.

The NAMA of energy efficiency is more compromised, since, although energy audits in the public sector are mandatory by law, but it was not implemented in the pre-pandemic period, thus there is less chance that this NAMA will grow in the short term. Despite the above, the project managed to include within the Institutional Operational Plan 2021 (POI) of the DGEE, indicators on energy audit, so the issue will continue at least within the MINEM.

The NAMA for the promotion of electric public transport is an activity financed mostly by international cooperation funds and interested private companies, so there is a certain possibility that it will not prosper in the short term without these resources. It is worth mentioning that at present several pilot projects of electric transport have been implemented in various cities of the country, but they have not materialized in a mass electric or hybrid transport system. In this regard, there is a possibility that the study of business models of electric buses developed by the IDB, and the project could be realized in an IDB financing line with favorable conditions to promote electric vehicles. A recently endorsed GEF-7 project will work further and upon the results of the e-mobility NAMA.

[42] https://www.bancomundial.org/es/country/peru/overview

Finally, MINEM's DGEE approved resources to hire a manager for the MRV system, which would provide continuity in its implementation, although it would be insufficient when it enters the regime.

Therefore, financial sustainability for the main results of the project is estimated as "Moderately Likely".

Socio-political/economic (*)

Rating: Moderately Likely

One of the main risks in this regard is the uncertainty generated by the pandemic and by the current political scenario, where very contradictory forces and apparently even in electoral force are vying for the presidency of the republic.

It should be mentioned that there are groups interested in maintaining some achievements of the project, such as electric transport (MTC), inventory updating and maintenance of the MRV. However, the electricity distribution companies are fiercely opposed to the distributed generation project and others to the proposed promotion of electric transport.

It is worth mentioning that there are stakeholders in the NAMAs of the project but who did not actively participate, such as mayors, regional authorities and civil society organizations that could provide bigger political support to sustain and amplify the results of the project.

The project carried out a transfer of knowledge and important capacities for the public sector involved (MINAM, MEF, MINEM, FONCODES, Produce), but until the moment of the evaluation the lessons learned from the project have not been documented nor has an exit strategy been developed, which complicates the replicability and scaling up of the experience.

Therefore, the rating is estimated as "Moderately Likely" in the medium term, if efforts are made to involve more actors to support these initiatives.

Institutional framework and governance (*)

Rating: Moderately Likely

As mentioned above, the staff of the relevant institutions have been strengthened in NAMA issues, but unfortunately, the high turnover of professionals and managers of the ministries constitutes a risk to the continuity of the results of the project. On the other hand, the sectoral and centralist nature of these bodies makes cooperation and coordination between them difficult.

On the other hand, the next presidential election brings many uncertainties about how the public apparatus and the economy will be organized for the next period, since it is facing two antagonistic projects and both with the possibility of succeeding.

According to various expert opinions, regulatory changes are needed for bidding schemes to introduce electric mobility in public transport, but the project managed to move forward with the approval of Supreme Decree No. 022-2020-EM, which approves "provisions on the infrastructure of charging and supply of electric energy for electric mobility". On the other hand, the ATU, through Directorial Resolution No. 02-2021-ATU/DIR pre-published the "Draft Standard of Bus Electric Standard (BPE) of Technical Specifications for the Standardization of the physical and motor

characteristics of the Electric Standard Bus". The DGEE will also draw up the technical regulation of DS-022-2020-EM, which adopts provisions on the charging and supply infrastructure of electrical energy for electric mobility. A GEF 7 mobility project will work with all these actors, and MINEM is part of its steering committee.

Although there is interest among the actors, the bill for the promotion of electric transport has not been approved, so this NAMA would not have many possibilities of implementation in the short and medium term. To mitigate the previous situation, the project managed to publish - for the reception of suggestions from the public – the Supreme Decree No. 250-2019-MINEM/DM that approves "Provisions to facilitate the development of the market for electric and hybrid vehicles and their supply infrastructure", so that the activity and discussion on this topic could be maintained in the short term and be reinforced with the upcoming new GEF-7 e-mobility project.

Institutionally, MINEM's DGEE adopted and has included energy efficiency indicators in its institutional workplan, and it will continue with the development of the MRV of the energy sector and regulations of its competence, but a greater effort will be needed to coordinate the introduction of electric mobility with other sectors such as the MTC, the ATU and regional authorities, and to implement a massive energy efficiency program in state institutions.

Given the above, this dimension is described as "Moderately Likely".

Environmental (*)

Rating: Probable

The project does not have negative impacts on the environment, but has numerous benefits, which have already been discussed in previous sections.

No serious threats are displayed for this dimension, so the rating is "Likely".

Overall probability of sustainability (*)

Table 18: evaluation for sustainability

Sustainability	Rating
Financial	Moderately likely
Socio-politics	Moderately likely
Institutional framework and governance	Moderately likely
Environmental	likely
Overall probability for sustainability	Moderately likely

The consolidated of all project ratings can be seen in Table No. 19 below

Table No. 19: Consolidated assessment of project ratings

Project dimension	***Rating***
Monitoring and evaluation (M&E)	
M&E Plan design at entry	Moderately Unsatisfactory
M&E Plan implementation	Moderately Satisfactory
Overall Quality if M&E	**Moderately Satisfactory**
Implementing agency (IA) Implementation & Executing Agency execution	
Quality of UNDP implementation / oversight	Moderately Satisfactory

Quality of implementing partner execution	Satisfactory
Overall quality of implementation/execution	**Moderately Satisfactory**
Assessment of outcomes	
Relevance	Highly Satisfactory
Effectiveness	Satisfactory
Efficiency	Satisfactory
Overall project outcome rating	**Satisfactory**
Sustainability	
Financial Sustainability	Moderately Likely
Socio-political Sustainability	Moderately Likely
Institutional framework and governance sustainability	Moderately Likely
Environmental sustainability	Likely
Overall Likelihood of sustainability	**Moderately likely**

3.3.8. Gender equality and women's empowerment

The project approached gender issues in the NAMA of Universal Access to Sustainable Energy, where a study was conducted to analyze the role of women in rural communities and developed a pilot of an energy school for women (e-Women), where they were trained on how to install, maintain and repair photovoltaic systems, and improved kitchens. This strategy began with the design and implementation of training workshops specifically geared towards women in four regions of the country. This initiative caused much interest and acceptance in local authorities and community organizations.

This initiative would bring with it the possibility of generating new income for families, since photovoltaic system installation companies reach isolated communities at a high cost that is not covered by energy consumption rates. Therefore, it is interesting for them to have qualified people in the same communities.

3.3.9. GEF additionality

The environmental benefits generated by NAMAs have been confirmed by measurement and verification means developed during the project, where it was found that the reduction in GHG emissions was much higher than Prodoc's expectations.

The attribution of results obtained by the project follows the cause-and-effect logic, such as the lack of coordination among government entities to generate effective mitigation measures was solved through the implementation of a coordinated governance structure coupled with the development of consistent methodologies to systematize isolated and poorly designed mitigation activities, which resulted in a series of NAMAs with specific MRV systems to measure their outcomes.

As discussed in section 3.3.8, the sustainability of the results after the completion of the project is moderately likely. Financially, there may not be additional resources, but there may be a minimum that allows the continuity of key results, such as the maintenance of the MRV system at MINEM and the application of NAMA's inventory and design methodologies at MINAM.

The school for women was not part of Prodoc, but it has had a good impact and has aroused the interest of authorities on how to continue with the initiative on a wider scale.

3.3.10. Catalytic role / Replication effect

At the time of the final evaluation, the project was still executing some actions lagging behind due to the pandemic, but no exit strategy has been developed - in coordination with its partners - to enable it to sustain and scale up the successful experiences implemented. Although there is interest on the part of regional authorities in implementing GHG inventories and the Energy School for Women, the necessary partnerships and roles among the actors to implement this escalation have not been agreed upon. On the other hand, the execution of the project has focused on Lima without a significant participation of regional and local actors. There is a perception within some of the actors interviewed that the execution has been centralized and focused on MINEM.

With regard to replication, at the moment it is not visualized that it will occur in the short term, as a result of the lack of agreement between the actors and the political and economic situation existing in the country.

The project has carried out demonstration projects, such as EE audits in the public sector, installation of photovoltaic systems in public entities, testing clean kitchens with solar energy and kitchens that provide water heating, and electric public transport in Lima. These experiences have gathered information and proposals that have been disseminated among the relevant actors in the sector, but it has not been widely disseminated among the general public and regional and municipal authorities that can more actively support the proposals presented by the project, where the main ones have had a strong opposition from electricity distribution companies.

Finally, with regard to the exchange with peers at the Latin American level, not much activity has been seen, participating in 2 regional events called climate week, so it is difficult - considering the available information - that this valuable experience has a greater impact on other countries. However, the project built a website (http://namasenergia.minem.gob.pe//es-pe/pagina/escenarios-de-mitigacion) and a youtube channel (https://www.youtube.com/channel/UCcRzmdg4HLQpyWiE58CjTew/videos), where the experience of the women's technical school (e-woman) are displayed, the studies andtechnicalguidelines carried out by the project and the regulations related to NAMA are available to share the experience with peers and the general public. The experience of the women's technical school has been widely shown as successful and, in addition, the project generated a series of written and audiovisual materials published on different platforms[43].

4. Main findings, conclusions, recommendations and lessons

4.1. Main Findings

Design

The project lacked a clear definition of its scope, desired results and appropriate indicators to measure its progress and achievements. This lack of definition had its pros and cons, as it allowed great flexibility when facing the different options of NAMA during the implementation of the project, but its estimated duration was very short (4 years instead of the 5 commonly found for this type of full-size project). To the above should be added the existence of 2 versions of Prodoc (one

[43] PIRs 2017-2020, "Communication Impact" section.

for 5 years and one for 4), which caused greater confusion and negatively impacted the progress of the project since the planning and implementation were based on the wrong bases, mainly in the wrong deadlines.

The participation and structure proposed in the Prodoc was focused on actors from public entities at the centralized level, leaving little room for actors from the energy business sector and civil society. The governance bodies established in Prodoc did not include this type of broader actors, nor did they include the formation of technical committees to support the PSC, which limits the influence of the project to a broader level. The issue of gender was relegated to general statements, without establishing adequate goals or indicators to monitor this dimension, while the approach for indigenous peoples is non-existent in the Prodoc.

Execution

The start-up of the project was delayed significant due to the difficulty of finding the right professional for the role of project coordinator. Once started, the executing unit found a very different context to that projected during the elaboration of the Prodoc, that is, there was an excess of energy production, the tenders for generation have been frozen since 2016 and at the same time began a process of political and institutional instability that continues to this day, to which were added the restrictions imposed by the pandemic from March 2019.

The confusion caused by the differences between the project documents authorized by the GEF CEO and the one signed by the GdP meant that - for the GdP - the project went from having a duration of 5 to 4 years, which resulted in its implementation being delayed when considering the deadlines of the GEF CEO document and the understanding of UNDP, thus the annual budgets were outdated and caused frustration in the executing unit of the project.

The combination of the factors mentioned above resulted in 2 extensions of the execution period (the first one for one more year and the second for 6 months due to COVID-19 pandemic), eventually remaining at 5.5 years instead of the 4 years initially estimated.

On the other hand, the technical complexities and specificities associated with the execution of the different products showed the lack of specialist consultants in the country, which resulted in several bidding processes had to be declared deserted and in other cases, the products delivered by the consultants did not meet the quality standards of the project. Fortunately, the management arrangements between UNDP and MINEM to implement the procurement and product review processes had a positive impact on the efficiency and effectiveness of these processes (preparation of ToRs and review of proposals made by MINEM ad-hoc committees, and signing of contracts, supervision and disbursements made by UNDP).

The governance and participation mechanism implemented had limited stakeholder participation in the PSC and no independent advisory committee was installed for this body. Instead, various working groups and workshops were instituted to discuss issues specific to each NAMA and mitigation measure, and limited participation of the business sector, civil society organizations, and regional and local authorities was maintained, so the main implementation strategy was centralized in Lima and the DGEE-MINEM, as a way to accelerate the implementation of the already delayed project.

On the other hand, there was successful coordination and cooperation with other IDB initiatives, NREL and GIZ to complement the actions promoted by the project.

It is worth mentioning that at the time of the final evaluation there were still contracts in execution, which had been affected by the pandemic. In addition, an exit strategy for the project was being discussed to support the achievements of the project, such as the implementation of the MRV in MINEM and its potential replication, the creation of the Energy School for Women and the elaboration of the technical regulation for charging stations for electric mobility.

Financial Management

At the time of the final evaluation, a remanent of approximately USD 30 thousand was found as of April 19, 2021. The arrangements for procurement processes agreed between MINEM and UNDP favored the overall effectiveness and efficiency in the implementation of the project. With regard to the co-financing by the GoP, this was USD 91.5 million which exceeded by almost 3 times the amount committed in the Prodoc.

M&E System

During the implementation, the executing unit showed good adaptive management, making precisions in the desired results and adjusting the scope, activities and NAMAs of the project in the initial stage of execution, but without changing the indicators or adjusting the goals. It also complied with all UNDP standard requirements for these cases, carrying out annual planning, with the PSC meetings and reporting periodically to MINEM and UNDP on the progress of activities and products.

UNDP provided technical, administrative and financial support, while monitoring the project and promoting it to the authorities that frequently changed in MINAM, MINEM and the DGEE, to whom it informed and updated on the objectives and scope of the project.

However, the political and regulatory risks of the project were underestimated by both the project and UNDP, which despite the fact that in 2017 the overall risk had already been classified as "substantial", the MTR was done late between the 38th and 41st months of execution instead of the corresponding 24 months. To the above, it should be added that UNDP could have made use of other alternative tools such as follow-up visits to the project (they are rapid pre-evaluations that are sometimes carried out by the same UNDP M&E staff) or advance the MTR to analyze the causes of the problems and have proposed measures to solve them.

Achieving Results

Undoubtedly, the project achieved its goal of supporting the government of Peru in the development and implementation of four NAMAs in the energy sector. The main results can be summarized in the strengthening of capacities of key ministries such as MINAM, MINEM, MTC and MEF in the preparation of GHG inventories, sectoral emission factors, mitigation scenarios, development of energy audits and in the design, identification, implementation and monitoring of NAMAs.

Related to the above, the project leaves installed a series of methodologies and tools so that the responsible agencies can fulfill their functions of collecting emissions information, reporting and implementing mitigation measures in the energy sector. In this regard, a relevant result is the MRV platform for NAMA installed in the MINEM.

It was also possible to implement - either partially or in full execution - the 4 NAMAs with 12 associated mitigation measures, in addition to a strong set of tools, methodologies, studies, regulatory proposals and technical regulations necessary for the full functioning of these NAMAs. It is worth mentioning that these NAMAs have greater scope and depth than those initially contemplated in Prodoc, so in this regard it exceeded initial expectations.

Gender and indigenous peoples

NAMA's proposals include an analysis and baseline for gender and energy, but the activity that has aroused the most interest among the actors is the proposal for the national massification of an energy school for women (e-Women) from rural sectors, to train them in the installation, maintenance and repair of photovoltaic panels, so that they can have an additional source of income for their homes and provide a service to their communities.

Sustainability

This aspect presents some challenges, the most important being those related to the country's unstable institutions and the continuous rotation of directors and professionals from State agencies. At the same time, the sectoral culture of these institutions complicates the actions of cooperation and coordination between them.

On the other hand, the availability of resources to maintain some NAMAs, such as transport and energy efficiency, is a challenge: while the former obtains its majority funding from interested companies and international cooperation agencies, the latter depends on state resources, where the corresponding legislation on the obligation to conduct EE audits in the public sector has not been fully complied with.

4.2. Conclusions

Design

The project document (Prodoc) presented major shortcomings related mainly to the lack of definition of its scope, results and indicators for measuring achievements. However, this was also a strength since it provided sufficient flexibility so that the executing unit could specify the parameters of the project according to the reality found at the time of beginning its implementation. Another design difficulty was the too short estimate for the execution period (4 years instead of 5), which created a problem of perception of delay that was not so real.

Achievements of the project

The information collected indicates that the objective of supporting and strengthening institutions to design and implement NAMA was achieved. The NAMA emission reduction target for GHG was also far exceeded, although - in the opinion of the evaluator - the real achievement in this regard is that it was possible to make visible the results of a series of mitigation actions that, without the application of the robust and verifiable methodology developed by the project, it would not have been possible to determine or disseminate them.

On the other hand, the project leaves a series of tools, procedures, studies and regulatory and technical proposals that will allow the responsible institutions to meet their commitments of inventory reports and their updating. Thanks to this project, the process to identify, design and implement the MRV for present and future NAMAs was also systematized.

Execution

The project was delayed in its implementation mainly due to the difficulty of installing a suitable executing unit, the complexity of the topics addressed and its high learning curve, the low availability of specialized consultants in the country, the political and institutional instability and the restrictions imposed by the pandemic. In addition to the above, the different implementation deadlines stipulated in the two different versions of the project that led to errors in its planning of activities and disbursements should be added. The sum of all the factors mentioned above justified the two extensions of the project, so its implementation period went from 4 to 5.5 years.

The institutional arrangements implemented, and the centralized implementation modality involved limited participation of public, private and civil society actors that could more actively support the project's proposals and achievements.

With regard to the project's CO2 emission reduction targets, estimates made by the MRV system, the TT and the PIR 2020 indicate that these have been exceeded. Direct CO2 reductions according to Prodoc should reach 960K ton in 10 years, but the project calculates reductions of 22K tons/year for NAMA#1 (photovoltaic systems), 7.9M of avoided lifetime emissions for NAMA #2 (EE), 959K tons avoided for life for NAMA #3 (electric mobility), while the avoided lifetime emissions for NAMA#4 would be 31.7M tons, with a cumulative 8M ton since 2010.

Indirect emissions have not been measured so far, but it is estimated that they would be much higher than direct emissions, so it is concluded that the project's emission reduction targets would have been exceeded.

Financial management

The financial resources of the project were effectively and efficiently executed in accordance with UNDP standards, and additional resources were obtained that are not yet fully informed. There is a remnant of the project's money, which reached approximately USD 30 thousand as of April 19, 2021. With regard to co-financing, this reached USD 75 million, thus exceeding the committed amount of USD 32 million.

Relevance, ownership and sustainability

The project is part of a series of voluntary commitments by the country to reduce GHG emissions and efforts to diversify its energy matrix. It is also in line with FISE's Universal Energy Access program and the obligations to report inventories and their updates to the UNFCCC secretariat, making the project relevant to the country, UNDP and the GEF.

The appropriation of the results of the project by the relevant actors has been mixed, with some institutions such as MINEM and MINAM that have assumed the methodologies for inventories and NAMA, as well as the continuity of the MRV and the publication of regulations proposed by the project. It has also been an important achievement that the MEF has participated in the project's PSC, a situation that had not occurred before in a GEF project in Peru. On the other hand, regulatory reforms have not yet been approved, with the laws on distributed generation and the promotion of electric transport unlikely to be approved. These are key reforms that would allow, respectively, a greater participation of solar energy in the electricity market and the introduction of electric mobility.

The probability of sustainability of the results is also mixed, where financing and the volatile institutional situation of the country would be the biggest challenges to overcome.

4.3. Recommendations

No.	*Recommendation of the final evaluation*	*Responsible Entity*	*Implementation period*
A.1	Although the project is operationally closed, there are still steps to be taken to ensure the continuity of the project's achievements, so it is recommended that UNDP lead discussions with the different actors to reach agreements that constitute an exit strategy for the project.	UNDP, MINEM, MINAM	June-October 2021
A2	The exit strategy should be drawn up in conjunction with the key actors of the project (MINAM, MINEM, MEF, MTC, ATU, and MIS to name a few) with UNDP as a sponsor and facilitator in the corresponding institutions. This strategy should basically contain programmatic agreements that ensure the continuity and realization of outstanding issues such as the following:	UNDP, MINEM, MINAM	June-October 2021
A2.1	Define a budget scheme, assignment of professionals and operating structure of the MINEM MRV platform, indicating responsibilities and roles of each participating management.	UNDP, DGEE-MINEM	June-October 2021
A2.2	Finalization of the Technical Regulation on Charging Stations for Electric Mobility	MINEM	June-October 2021
A2.3	Define, jointly with the responsible directorates and stakeholders of the system, a working group to implement the changes in the payment scheme of the rural electrification program. This working group should have a clear and specific mandate, a detailed work plan, a defined timeline and responsible for the implementation of every aspect of this work plan.	DGEE-MINEM	June-October 2021
A2.4	Create a working group with the same characteristics as the previous one, to clear the disagreements in the law of distributed generation, in order to allow a greater participation of solar energy, based on the project proposal or another available.	DGEE-MINEM, DGE-MINEM, OSINOGERMIN	June-October 2021
A2.5	Define an inter-institutional governance scheme between operators, MTC, MINAM, MEF, ATU to continue the electric bus pilot project jointly with TransPeru, and establish specific multi-actor working groups (with deadlines, responsibilities for results and specific proposals) to determine: i) standard bus models, ii) business model of electric/hybrid transport; iii) regulatory adjustments based on the project's proposal on the promotion of electric transport or other available ones. To facilitate this recommendation, it is suggested that the project executing team first share with the actors all the studies and consultancies carried out under NAMA #3 for the promotion of electric transport, which would easy the installation of the upcomming GEF-7 new mobility project.	MTC, MEF, MINAM, ATU	June-October 2021
A2.6	Define an inter-institutional working group and with regional and local authorities, relevant beneficiary community organizations, to agree on how the Energy School for Women (e-Women) is implemented.	MIS, DGEE-MINEM	June-October 2021

No.	Recommendation of the final evaluation	Responsible Entity	Implementation period
A2.7	Establish a pilot working group with selected regions to test an institutional coordination and strengthening mechanism to develop decentralized GHG inventories in the energy sector.	MINAM-MINEM	June-October 2021
A2.8	Hold a final online event for the closing of the project, with the participation of national, regional, municipal authorities and relevant social organizations, to report on the results of the project and the working groups that will project these achievements into the future. This event could be divided into a national one (Lima) and 2-3 events for selected regions.	DGEE-MINEM, PNUD	June-October 2021
A.3	For future projects, it is recommended that UNDP ensure consistency between the documents approved by the GEF CEO and those signed by the country, in order to avoid misunderstandings during the progress of the project and to provide initial advice to the project coordinators on the GEF criteria for accounting for deadlines and M&E For example.	UNDP	Permanent
A.4	For complex projects with the need to specify their scope and indicators, as well as to collect the necessary information to report the indicators, it is recommended to integrate a specialized professional into the project teams, in order to organize the type and amount of information necessary to adequately monitor the implementation.	UNDP	Permanent
A.5	Future projects should include the installation times of the executing units within the institution that hosts them, so as to have a more realistic execution period than what currently exists, which is to think that a project begins with the signature of Prodoc.	UNDP	Permanent

4.4. Lessons Learned

The design of any project should contain spaces of flexibility so that the executors can make the necessary adjustments both to their results and indicators and goals. This flexibility should not be at the expense of imprecise, difficult-to-understand, uninterpreted and ultimately difficult to measure statements and indications. In the case of this project, there was an effort to understand and specify the key terms, but that might not be the case and could lead to implementation without much direction or meaning.

The execution of this project revealed the problem of developing a project that does not consider deadlines for the installation of the executing unit within the institution that hosts it and the associated administrative times. Not including these times leads to misperceptions about the performance of national executing agencies (a "false positive" result for the late-execution test), in addition to adding unnecessary stress to generate products, missing the goal of obtaining results.

The existence of two project documents signed by the CEO of the GEF and another signed by UNDP and the GdP, stipulating different deadlines and disbursements for the same project was certainly an unusual situation, which generated confusion and tension especially in the execution of the second half of the project. This inconsistency highlights the importance of UNDP conducting a thorough review of documents that will be signed by governments, as well as formalizing and adjusting these documents when inconsistencies are noted, even if this takes some additional time.

The current pandemic situation suggests that in the design of future projects there will be an exercise of identifying and evaluating types of risks that could apparently have a very low probability, but a significant impact on the execution of any project. At the very least, doing this type of exercise could allow the identification of key mitigation measures that could give an indication of how to deal with types of catastrophic situations such as the current ones.

The delegation of most procurement processes to the executing agency proved to be an effective practice for the more expeditious implementation of project activities and would be advisable to do so when possible, following an assessment of the capacities of the executing unit and its experience in UNDP standards.

Reports are a fundamental tool to understand the progress of any project. The NAMA project executing unit's practice of changing the order of Prodoc's results and/or their outputs in the project progress reports (PIR and quarterly reports) and in the communications material used confuses those who read these documents.

5. Annexes

Annex 1: ToR

Programa de las Naciones Unidas para el Desarrollo

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AVISO DE CONVOCATORIA PARA CONTRATISTA INDIVIDUAL
PROCESO No. UNDP/IC-003/2021

Fecha: 07 de enero de 2021

PAÍS: Perú

DESCRIPCIÓN DEL SERVICIO: PNUD/IC-003/2021 – Evaluación Final del Proyecto Acciones Nacionales Apropiadas de Mitigación (NAMA) en los sectores de generación de energía y su uso final en el Perú

PERÍODO DE LOS SERVICIOS: 65 días calendario

LUGAR DE DESTINO: Lima

El Programa de Naciones Unidas para el Desarrollo (PNUD) requiere los servicios de una persona para realizar el trabajo descrito arriba.

Agradeceremos tener en cuenta que esta convocatoria se está realizando a través del sistema en línea del PNUD denominado -eTendering. En consecuencia, si se encuentra interesado en participar en este proceso, deberá estar registrado en nuestro sistema.

En el siguiente link, podrá revisar las guías de usuario y videos tutoriales de cómo utilizar esta herramienta:
http://www.undp.org/content/undp/en/home/operations/procurement/business/procurement-notices/resources/

En caso de que ya se encuentre registrado, deberá ingresar al siguiente link: https://etendering.partneragencies.org

Utilice la opción de "forgotten password" en caso no recuerde su contraseña. No cree un nuevo perfil.

Si es la primera vez que utiliza el sistema, se puede registrar a través del siguiente link, siguiendo las instrucciones de la guía de usuario:

https://etendering.partneragencies.org
Usuario: event.guest
Contraseña: why2change
Considerar que para descargar los documentos del proceso necesita utilizar el navegador Internet Explorer.

Se recomienda que al crear su usuario, éste se componga de su nombre y apellido, separado por un ".", de la siguiente manera: nombre. apellido. Una vez que se registre, recibirá un correo electrónico con su contraseña. Se recomienda ingresar y cambiar la contraseña (ver la guía de usuario).

Agradeceremos tener en cuenta que la contraseña deberá tener al menos las siguientes características:

- Mínimo 8 caracteres
- Al menos una letra en mayúscula •
  Al menos una letra en minúscula
- Al menos un número

Tener en cuenta que el usuario y contraseña indicados previamente pueden ser utilizados para revisar y descargar los documentos del proceso. Sin embargo, en caso quiera presentar una oferta, debe registrarse en el sistema e inscribirse en el proceso de su interés a fin de que le lleguen las notificaciones correspondientes.

La propuesta deberá remitirse en idioma español, a más tardar hasta el 18 de enero de 2021 hasta las 14:00 pm (hora Nueva York). No se recibirán propuestas que se presenten posteriormente a la fecha y hora indicada.

Cualquier solicitud de aclaración deberá enviarse, vía electrónica (formato Word), a la dirección de correo electrónico detallado líneas más abajo, a más tardar el día 12 de enero de 2021. Las respuestas se publicarán en la página web del PNUD, a más tardar el 14 de enero de 2021.

Los procedimientos para adquisición de los servicios objeto de este llamado serán los del Programa de la Naciones Unidas para el Desarrollo.

Este proceso está dirigido a personas naturales en carácter individual. Cualquier oferta recibida de una persona jurídica o de dos (2) o más personas será rechazada, así como de aquellos cuyas referencias sean negativas. En el marco de la igualdad de género, el PNUD alienta a hombres y mujeres a presentar aplicación para este proceso.

En el caso de que decida no presentar una oferta, le agradeceríamos que nos informe y preferiblemente indique las razones de su declinación.

Cualquier consulta relacionada con este proceso, podrá ser remitida a la dirección electrónica adquisiciones.pe@undp.org, indicando el código del proceso PNUD/IC-003/2021

Atentamente,
Unidad de Adquisiciones - PNUD

Programa de las Naciones Unidas para el Desarrollo

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1. ANTECEDENTES, OBJETIVOS, ALCANCE, RESPONSABILIDADES Y DESCRIPCION DEL TRABAJO INTELECTUAL REQUERIDO, EXPERIENCIA Y REQUERIMIENTOS:

Favor referirse al **Anexo 1** – Términos de Referencia

2. DOCUMENTOS A SER INCLUIDOS EN SU PROPUESTA

a. Carta confirmando su interés, debidamente firmada, según el formato adjunto en el **Anexo 2**.
b. Hoja de Vida, incluyendo al menos 3 referencias comprobables. Dicho documento deberá contener toda la información necesaria para asegurar su cumplimiento con la educación/experiencia requeridas. Si las referencias resultaran ser no favorables, la oferta del consultor será rechazada.
c. Resumen Profesional, (deberá adjuntar constancias y/o certificados u otros documentos que permitan establecer fehacientemente el cumplimiento del Perfil Profesional y Experiencia Profesional del oferente), según **Anexo 3**.
d. Oferta Técnica, la cual debe incluir Marco Conceptual, Matriz de trabajo para los productos, descripción de la metodología a utilizar y cronograma detallado por actividades, de acuerdo con lo descrito en los TDR, **Anexo 4.**

3. PROPUESTA FINANCIERA

La propuesta económica debe indicar el precio fijo requerido por la totalidad de la consultoría. La suma alzada debe ser "todo incluido" (i.e. honorarios profesionales, costos de movilización al lugar de destino, impuestos, seguros, transporte, comunicaciones, varios, etc.) y deberá ser respaldada con el desglose de costos correspondiente. El precio será fijo indistintamente de los cambios que puedan existir en los componentes de los costos y deberá ajustarse al formato adjunto en el Anexo 2.1.

La moneda de la propuesta para los consultores nacionales deberá ser en SOLES y para los consultores internacionales deberá ser en DÓLARES.

4. EVALUACIÓN

Para efectos de evaluación se aplicará el método de puntaje acumulado, donde la adjudicación del contrato se otorgará a aquella oferta que obtenga la mejor combinación técnico-económica.

Únicamente las ofertas que alcancen el mínimo de **49 puntos** en la evaluación técnica se considerarán habilitadas para pasar a la evaluación económica.

FACTORES DE EVALUACIÓN	PUNTAJE MÁXIMO
A. EVALUACIÓN TECNICA	**70 puntos**
1. Evaluación Documentaria Se verificará la presentación de la documentación solicitada en tiempo y forma.	Cumple/No Cumple

2. Formación Académica	**3 puntos**
2.1 Con estudios de maestría concluidos en medio ambiente, ciencias, ingenierías, economía y otro campo afín. □ Estudios de maestría concluidos– 00 puntos □ Grado de magíster: – 2 puntos	2 puntos
2.2 Deseable especialización, curso o seminario relacionado a: cambio climático, adaptación/mitigación, planificación del territorio, o afines.	1 punto
2.3 Fluidez en inglés y español escrito y hablado (se verificará a través de la prueba técnica y durante la entrevista)	Cumple/no cumple
3. Experiencia Profesional	**27 puntos**
3.1 Mínimo 7 años de experiencia en temas energéticos, de cambio climático, cálculos de emisiones de carbono, MRV, contaminantes locales, NDC, huellas de carbono u otro campo a fin. □ Menos de 7 años – no cumple □ De 7 a 8 años – 6 puntos □ De 9 años a más – 8 puntos	8 puntos
3.3 Mínimo 5 años de experiencia en la aplicación de indicadores SMART, ya sea en el marco del diseño, monitoreo o implementación de proyectos y reconstrucción o validación de escenarios iniciales (baseline scenarios). □ Menos de 5 años – no cumple □ De 5 a 6 años – 6 puntos	8 puntos
3.4 Mínimo 5 años de experiencia en evaluación de proyectos. Se valorará si alguna experiencia es en temas de cambio climático. □ Menos de 5 años – no cumple □ De 5 a 6 años – 6 puntos □ De 7 a más años – 7 puntos	8 puntos
3.6 Deseable experiencia en evaluaciones y análisis sensibles a la interculturalidad y género.	1 punto
~~3.7 Deseable experiencia en evaluaciones/ revisiones de proyectos dentro del~~ sistema de las Naciones Unidas.	1 punto
~~3.8b Deseable experiencia en la implementación de evaluaciones de forma~~ remota.	1 punto

4. Metodología, enfoque y plan de ejecución propuestas	**20 puntos**

En este rubro se calificarán los siguientes criterios:

- Marco Conceptual 03 puntos
- Matriz de trabajo 04 puntos
- Metodología 10 puntos
- Cronograma de actividades 03 puntos

La calificación será obtenida multiplicando cada puntaje parcial de los conceptos arriba mostrados, por el factor correspondiente de acuerdo con los siguientes factores:

Calificación	**Criterio**	**Factor**
Excelente	Propuesta técnica presentada y respaldada por pruebas excelentes de capacidad para admitir y superar los requisitos del contrato.	1.0
Bueno	Propuesta técnica presentada y respaldada por pruebas válidas de capacidad para admitir y superar los requisitos del contrato.	0.9
Satisfactorio	Propuesta técnica presentada y respaldada por pruebas satisfactorias para admitir los requisitos del contrato.	0.7
Deficiente	Propuesta técnica presentada y respaldada por pruebas mínimamente aceptables o deficientes de capacidad para cumplir con los requisitos del contrato.	0.4
Muy deficiente	Propuesta técnica presentada, pero no se encuentra respaldada por pruebas para demostrar la capacidad para cumplir con los requisitos del contrato	0.1
No presenta	Propuesta no presentada o no es inaceptable.	Descalificado

5. Entrevista	**20 puntos**

Solo aquellos oferentes que obtengan un puntaje igual o superior a 35 puntos en la evaluación curricular, experiencia y de oferta metodológica, pasarán a

20 PROPUESTA ECONÓMICA	**30 puntos**

Para efectos de evaluación se utilizará la siguiente fórmula: **p = y (μ/z)**
Donde:
p = puntaje obtenido
y = puntaje máximo otorgado

μ = Monto de la oferta más baja recibida z = Monto de la oferta evaluada	
PUNTAJE TOTAL (TÉCNICO + ECONÓMICO)	**100 puntos**

5. ADJUDICACIÓN

El PNUD se reserva el derecho de aceptar o rechazar cualquier propuesta y de anular el proceso, así como de rechazar todas las propuestas en cualquier momento con anterioridad a la adjudicación del contrato, sin incurrir por ello en ninguna responsabilidad con relación al oferente que se viera así afectado y sin tener la obligación de informar al oferente y oferentes afectados de los motivos de dicha acción.

Concluido el proceso de evaluación, los consultores seleccionados deberán cumplir con la presentación de los siguientes documentos:

- Formulario para la creación de Vendor (Proveedor)
- Copia del DNI
- Copia de documento bancario donde se pueda verificar el número de cuenta, nombre del banco, moneda y que la titularidad de la cuenta se encuentra a nombre del consultor adjudicado.
- Evidencia de contar con un seguro de salud vigente durante todo el periodo del servicio.

Nota: Los Consultores/Contratistas Individuales de más de 65 años cuyas asignaciones involucren viajar, se someterán a un examen médico completo por su cuenta y cargo que incluya exámenes de rayos-x y obtendrán autorización médica de algún especialista antes de asumir las funciones estipuladas en su contrato.

ANEXOS
Anexo 1- Términos de Referencia
Anexo 2- Carta del Oferente y Desglose de Costos
Anexo 3 - Resumen Profesional
Anexo 4 – Propuesta Técnica
Anexo 5 –Modelo de Contrato y Términos y Condiciones Generales de la Contratación

Programa de las Naciones Unidas para el Desarrollo

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ANEXO 1

TERMINOS DE REFERENCIA (TdR)
PNUD/IC-003-2021 - Evaluación Final del Proyecto Acciones Nacionales Apropiadas de Mitigación (NAMA) en los sectores de generación de energía y su uso final en el Perú

1. Información General

Lugar de destino:	Lima
Plazo:	65 días calendario
Supervisión:	Oficial de Programa de la cartera de sostenibilidad ambiental

2. Introducción

De acuerdo con las Políticas y los Procedimientos de Monitoreo y Evaluación del PNUD y el Fondo Mundial para Medio Ambiente (FMAM), todos los proyectos de tamaño regular y mediano financiados por el FMAM y apoyados por el PNUD deben someterse a una Evaluación Terminal (ET) al final del proyecto. Estos Términos de referencia (TDR) establecen los requerimientos de la ET del proyecto "Acciones Nacionales Apropiadas de Mitigación (NAMA) en los sectores de generación de energía y su uso final en el Perú" (PIMS#4679) implementado a través Ministerio de Energía y Minas del Perú. El proyecto se inició el 19 de octubre del 2015 (fecha de firma del Documento de Proyecto) y se encuentra en su quinto año de implementación. El proceso de la ET debe seguir las orientaciones descritas en el documento "Guía para realizar evaluaciones finales de proyectos financiados por el FMAM y respaldados por el PNUD" que se encuentra disponible en el siguiente link: (http://web.undp.org/evaluation/guideline/documents/GEF/TE_GuidanceforUNDP-supportedGEF-financedProjects.pdf).

2. Descripción del Proyecto

El compromiso del Perú de promover e implementar un desarrollo bajo en emisiones está claramente expresado en los objetivos de reducción de emisiones voluntaria presentados a la CMNUCC. Los metas del país con respecto a las NAMAs del país demuestran que el país tiene la intención de implementar una estrategia de desarrollo bajo en carbono, alineada con los objetivos de desarrollo sostenible del país. Esto supone la integración de los esfuerzos de reducción de emisiones a través de múltiples sectores y la identificación de medios eficaces para desvincular el crecimiento económico del aumento de las emisiones de GEI. La incorporación de medidas de reducción de emisiones en los procesos de planificación e implementación nacional es un reto importante, y los esfuerzos de Línea de Base descritos en el apartado anterior, constituyen importantes contribuciones para alcanzar este objetivo. Sin embargo, se requieren esfuerzos adicionales para fortalecer aún más las capacidades humanas, institucionales y sistémicas nacionales para transformar las metas del país en realidad.

Es en ese marco que el proyecto Acciones Nacionales Apropiadas en Mitigación' (NAMA, por sus siglas en inglés) en el sector energético, financiado por el FMAM tiene como objetivo apoyar y fortalecer la capacidad del gobierno peruano en la identificación, estructuración, desarrollo e implementación de 'Acciones Nacionales Apropiadas en Mitigación' (NAMA, por sus siglas en inglés) en el sector energético. El Proyecto ha dado lugar a la definición y establecimiento de prioridades de acciones en el sector energético, conformando NAMAs específicas y resultados de mitigación, en términos de reducción de emisiones, claros y viables. El proyecto contribuirá al logro de los objetivos que se establezcan a través de las contribuciones previstas y determinadas a nivel nacional (iNDC por

sus siglas en inglés) que serán comunicadas a la Convención Marco de las Naciones Unidas sobre el Cambio Climático (CMNUCC). Se ha definido así, a partir del formato del ProDoc firmado (2015), la implementación de cuatro NAMAs, incluyendo dos NAMAs de generación de energía renovable tanto conectados a la red eléctrica como no conectados, o fuera de la red eléctrica, lo cual también incluye la cocción limpia, una NAMA de eficiencia energética en los sectores público y privado, y una NAMA enfocado en la promoción de transporte eléctrico. El Proyecto contribuirá a que el Perú alcance sus metas voluntarias de mitigación en el sector energético, y como efecto colateral positivo, estas NAMAs generarán beneficios al nivel nacional en el crecimiento económico, la reducción de la pobreza, el bienestar social, la competitividad y la seguridad energética del país.

Los componentes de ejecución del Proyecto están definidos por los siguientes resultados:

Resultado 1: Línea de base de emisiones de GEI, de referencia BAU, al nivel nacional y regional (en regiones priorizadas), para el sector energético establecido.

Resultado 2: Acciones de mitigación priorizadas y Curva de Costo Marginal de Reducción de emisiones (MACC, por sus siglas en inglés) identificadas; documentos diseñados para las NAMA en los subsectores seleccionados; y cuatro NAMA preparadas para su implementación.

Resultado 3: Implementación de las cuatro NAMA para los siguientes subsectores: (i) Entidades relacionadas con la energía renovable conectada a la red (todas las tecnologías excluyendo las grandes hidroeléctricas); (ii) subsectores de energías renovables fuera de la red; y (iii) uso final de la energía relacionado a la eficiencia energética.

Resultado 4: Mecanismo preciso para la medición y contabilidad de las reducciones reales de GEI de las acciones de mitigación en el sector de generación de energía y uso final.

Resultado 5: Gestión del Proyecto.

El proyecto integra el enfoque de género transversalmente en su estrategia de implementación, con la escuela de Mujeres “eMujer que promueve la mejora de las condiciones de vida de las mujeres rurales en el Perú al brindar capacitación técnica sobre el uso adecuado y mantenimiento de tecnologías energéticas sostenibles para las comunidades rurales y más acceso de las mujeres a los mercados y oportunidades de empleo. La Escuela incluye un módulo de formación empresarial, transformando así el rol de la mujer rural de usuaria de energía en agente de cambio social en sus comunidades. El Proyecto ya implementó 10 cursos piloto utilizando el plan de estudios propuesto para cocina limpia y electrificación rural con energía solar, y contó con la participación de más de 160 mujeres en comunidades rurales de Cusco, Puno, Cajamarca e Iquitos.

El proyecto está alineado al Resultado 1 del Documento Programa País 2017-2021 del PNUD: Crecimiento y desarrollo inclusivos y sostenibles; específicamente al Producto 1.2: Capacidades nacionales y subnacionales fortalecidas para la gestión sostenible de los recursos naturales, los servicios de los ecosistemas, la adaptación y mitigación de cambio climático. Asimismo, contribuye a las areas de trabajo (entornos de desarrollo) del Plan Estratégico de PNUD 2018-2021: Erradicación de la pobreza en todas sus formas y dimensiones, así como a la Aceleración de las transformaciones estructurales para el desarrollo sostenible. Por otro lado, el proyecto adopta las soluciones emblemáticas de Cierre de brechas energéticas y fortalecimiento de la igualdad de género y el empoderamiento de las mujeres.

Este proyecto fue aprobado para una duración de 48 meses por el GEF, comenzando el 19 de octubre del 2015 con fecha de finalización en octubre de 2019. Luego de solicitar una extensión sin costo, se aprobó como nueva fecha de cierre, el octubre de 2020. Debido a la pandemia de Covid-19, se autorizó una segunda extensión por 6 meses adicionales, hasta abril del 2021. Cabe precisar que desde marzo del presente año el Peru fue declarado en estado de emergencia que comenzó el 16 de marzo de 2020 lo cual ha tenido un impacto significativo en el Proyecto, en lo que respecta a la implementación de servicios y actividades que requieren de viajes nacionales o internacionales o trabajo de campo en áreas rurales. Estos incluyen proyectos piloto de evaluación de tecnologías de energía limpia en poblaciones rurales, la implementación del piloto de escuela de energía de mujeres, estudios de indicadores de desempeño del transporte, talleres planificados, campañas publicitarias, entre otros. Por esta razón, el Proyecto cuenta con un Protocolo COVID-19 específico para reiniciar actividades, enfocándose en áreas y actividades en las que el Proyecto está involucrado (oficina y campo). Esto incluye procedimientos y protocolos estrictos para prevenir la transmisión y nueva exposición de todo el personal, consultores y beneficiarios del Proyecto.

A pesar de la pandemia de COVID-19 y las restricciones de viaje, el proyecto ha seguido con actividades y un plan de trabajo ajustado cuando fue posible. Centrado principalmente en continuar los estudios de escritorio contratados y mejorar los aspectos remotos y virtuales de la comunicación.

En cuanto a los arreglos institucionales, el proyecto es ejecutado por Ministerio de Energía y Minas (MINEM) a través de la Dirección General de Eficiencia Energética, que asume la Dirección Nacional del Proyecto, y contiene a la Unidad de Gestión de Proyectos, a cargo de la Coordinación del Proyecto. La Dirección Nacional del Proyecto preside el Comité Directivo del Proyecto (CDP), que está integrado además por los representantes acreditados del PNUD, el Ministerio del Ambiente (MINAM), el Ministerio de Economía y Finanzas (MEF), y el Ministerio de Energía y Minas (MINEM). El monto de inversión aportado por Fondo Medio Ambiente Mundial (FMAM) es de US$ 4.5 millones, y la cofinanciación asciende a la suma de US$ 32 millones, a través de proyectos y acciones directa e indirectas de dependencias del Gobierno del Perú (31 millones) y del PNUD (1 millón). La ejecución del Proyecto se realiza bajo la supervisión y garantía del PNUD, incluyendo los mecanismos de seguimiento y evaluación establecidos por el FMAM y el PNUD, incluyendo reportes periódicos, auditorías y evaluación de medio término (MTR) y evaluación final prevista para el año 2020.

Cuadro sinóptico del proyecto

Título del proyecto:	"Acciones Nacionales Apropiadas de Mitigación (NAMA) en los sectores de generación de energía y su uso final en el Perú"			
ID del proyecto del FMAM:	4884		*Al momento de aprobación (Millones US$)*	*Al momento de finalización (Millones US$)*
ID del proyecto del PNUD:	4679	GEF financing:	4,500,000	4,500,000
País:	Peru	IA/EA:	1,060,000	Por confirmar durante la evaluación final
Region:	LAC	Gobierno:	30,950,000	
Area Focal:	Cambio Climático -Energía	Otro:	-	
FA Objectives,		Cofinanciamiento		
		Total:	32,010,000	

Programa de las Naciones Unidas para el Desarrollo

Al servicio de las personas y las naciones

Agencia GEF:	Programa de las Naciones Unidas para el Desarrollo (PNUD)	Costo Total		
Otros socios involucrados:	Ministerio del Ambiente y Ministerio	Fecha Firma de ProDoc (fecha de inicio proyecto):		19/10/2015
		(Operational) Closing Date:	Propuesto: 19/04/2021	Real: 19/04/2021

El Documento de Proyecto se encuentra en el siguiente link:
https://info.undp.org/docs/pdc/Documents/PER/201407%20NAMA%20PRODOC.pdf

3. Objetivo del servicio

El objetivo de la TE es brindar una evaluación independiente del logro o no de los resultados del proyecto en comparación con lo que se esperaba, examinando críticamente las cadenas causales, incluyendo contexto, determinando la pertinencia, el impacto, la eficacia, la eficiencia y la sostenibilidad del proyecto a fin de mejorar futuras contribuciones al desarrollo.

Los propósitos complementarios de la TE son los siguientes:

- Promover la responsabilidad, rendición de cuentas y transparencia;
- Identificar las buenas prácticas y lecciones aprendidas que podrían ser útiles para mejorar la sostenibilidad de los beneficios de este proyecto y ayudar en la mejora general de la programación del PNUD
- Contribuir a la evaluación general del logro de los objetivos estratégicos del FMAM dirigidos al beneficio del medio ambiente mundial; y
- Evaluar el grado de convergencia del proyecto con respecto a otras prioridades de la ONU y el PNUD

Los usuarios finales de la evaluación serán las contrapartes gubernamentales (el punto focal operativo del FMAM), los socios en la ejecución, las oficinas de país del PNUD y las demás partes interesadas del proyecto para la toma de decisiones en futuras formulaciones y ejecución de proyectos de desarrollo.

4. Enfoque y Metodología

El informe TE debe proporcionar información basada en evidencia que sea creíble, confiable y útil.

Se espera que el Consultor siga un enfoque participativo y consultivo que garantice una estrecha colaboración con el equipo del proyecto, las contrapartes gubernamentales (el punto focal operativo del FMAM), los socios en la ejecución, las oficinas de país del PNUD, el asesor técnico regional, los beneficiarios directos y otras partes interesadas.

Además, el consultor de la TE debe utilizar metodologías y herramientas sensibles al género y garantizar que la igualdad de género y el empoderamiento de las mujeres, así como otras cuestiones transversales tales como la contribución del proyecto al CPD y UNDAF y los ODS se incorporen en el informe de TE.

El consultor de la TE deberá revisar todas las fuentes de información relevantes, incluidos los documentos preparados durante la fase de preparación (es decir, PIF, plan de iniciación del PNUD, procedimiento de evaluación social y ambiental del PNUD -SESP), el documento del proyecto, los informes del proyecto, incluidos los PIR anuales, las revisiones del presupuesto del proyecto, las lecciones aprendidas de informes, documentos

estratégicos y legales nacionales, y cualquier otro material que el evaluador de la TE considere útil para esta evaluación basada en evidencia. El evaluador de la TE revisará los indicadores básicos / herramientas de seguimiento del área focal del FMAM (Core Indicators/tracking tools) de línea de base y de mitad de período presentados al FMAM en las etapas intermedia y de aprobación del director ejecutivo y los indicadores básicos / herramientas de seguimiento (Core Indicators/tracking tools) terminales que deben completarse antes de que comience la misión de campo de TE. La lista completa de documentos se encuentra en el Anexo B).

Respecto a los otros métodos de recolección de información, estos podrán ser cuantitativos y/o cualitativos. Como mínimo se espera que se realicen entrevistas a actores directos del proyecto (aquellos que tienen responsabilidades en el proyecto, incluidas, entre otras, aprobación de productos o aquellas, por ejemplo; agencias ejecutoras, altos funcionarios y líderes de equipos / componentes de tareas, expertos y consultores clave en el área temática, socios implementadores, Junta de Proyecto, beneficiarios del proyecto, aliados estratégicos, academia, gobierno local y OSC, entre otros), de modo que aporten en la evaluación del progreso del proyecto y brinden sugerencias para aumentar la probabilidad de lograr las metas propuestas. Asimismo, el evaluador podrá aplicar encuestas y cuestionarios o discusiones grupales a las partes interesadas del proyecto, según crea necesario para el mejor desarrollo de la evaluación.

En cuanto al análisis de la información, esta se debe realizar haciendo uso de la triangulación entre la información recogida mediante las entrevistas y otras herramientas, y la documentación revisada. De esta manera, los hallazgos, conclusiones, lecciones aprendidas y recomendaciones que se obtengan del análisis de esta información deberán tener una sólida base en evidencias y mantener una misma lógica entre sí.

Ante las restricciones de viajes nacionales e internacionales debido a la pandemia por el COVID-19, el consultor deberá presentar una propuesta de solución para realizar dichas entrevistas, la cual podrá incluir medios virtuales o cualquier otra alternativa para obtener la información que se requiera de los principales actores (teléfono, zoom, skype, entre otros).

El enfoque metodológico final, incluido el cronograma de entrevistas y los datos que se utilizarán en la evaluación debe describirse claramente en el informe inicial de la TE y debe discutirse y acordarse en su totalidad entre el PNUD, las partes interesadas y el evaluador de la TE. Asimismo, el informe inicial debe presentar la Matriz de Criterios de Evaluación, la misma que deberá ser revisada, ajustada y completada por el evaluador de la TE (ver Anexo D de los TDR).

El informe final debe describir el enfoque completo adoptado para la TE y la justificación del mismo, haciendo explícitos los supuestos, desafíos, fortalezas y debilidades subyacentes sobre los métodos utilizado en la evaluación, así como sus limitaciones.

5. Alcance del Servicio

El evaluador será responsable del diseño general y redacción del informe de la TE, evaluará las tendencias emergentes con respecto a los marcos regulatorios, las asignaciones presupuestarias, el desarrollo de capacidades, y asimismo trabajará con el Equipo del Proyecto en el desarrollo del itinerario de la TE.

La TE evaluará el desempeño del proyecto frente a las expectativas establecidas en el Marco Lógico / Marco de Resultados del proyecto (**ver Anexo A de los TdR**). La TE evaluará los resultados del proyecto de acuerdo con los criterios descritos en la Guía para los TE de proyectos financiados por el FMAM apoyados por el PNUD (relevancia,

efectividad, eficiencia, sostenibilidad e impacto). La sección de Hallazgos del informe TE cubrirá los temas que se enumeran a continuación[1]:

Hallazgos

i. Diseño/Formulación del Proyecto
- Prioridades nacionales
- Marco de Resultados PNUD: CPD y UNDAF
- Teoría de Cambio
- Equidad de género y empoderamiento de mujeres
- Salvaguardias sociales y ambientales
- Análisis del marco lógico (AML) y del Marco de resultados (lógica y estrategia del proyecto; indicadores)
- Supuestos y Riesgos
- Lecciones de otros proyectos relevantes (p. ej., misma área de interés) incorporados en el diseño del proyecto
- Participación planificada de las partes interesadas
- Vínculos entre el proyecto y otras intervenciones dentro del sector
- Disposiciones/arreglos de implementación

ii. Implementación del proyecto
- Gestión adaptativa (cambios en el diseño del proyecto y los resultados del proyecto durante la implementación)
- Participación real de las partes interesadas y acuerdos de asociación
- Financiamiento y cofinanciamiento del proyecto
- Seguimiento y evaluación: diseño inicial (*), implementación (*) y evaluación general del SyE (*)
- Agencia implementadora (PNUD) (*) y Agencia ejecutora (*), supervisión, implementación y ejecución general del proyecto (*)
- Gestión de riesgos, incluidos los estándares sociales y ambientales

iii. Resultados del Proyecto
- Evaluar el logro de los resultados en comparación con los indicadores informando sobre el nivel de progreso de cada objetivo e indicador de resultado en el momento del TE y anotando los logros finales.
- Relevancia (*), Eficacia (*), Eficiencia (*) y el resultado general del proyecto (*)
- Sostenibilidad: financiera (*), socio-política (*), Marco institucional y gobernanza (*), ambiental (*), probabilidad general de sostenibilidad (*)
- Apropiación nacional
- Igualdad de género y empoderamiento de la mujer
- Temas transversales (alivio de la pobreza, mejora de la gobernanza, mitigación y adaptación al cambio climático, prevención y recuperación de desastres, derechos humanos, desarrollo de capacidades, cooperación Sur-Sur, gestión del conocimiento, voluntariado, etc., según corresponda)
- Adicionalidad del FMAM

[1] El asterisco "(*)" indica los criterios para los que se requiere una calificación. En el anexo C de los términos de referencia se proporciona un esquema completo del contenido del informe de TE.

- Papel catalítico / efecto de replicabilidad
- Progreso hacia el impacto

iv. Principales hallazgos, conclusiones, recomendaciones y lecciones aprendidas

- El equipo de TE incluirá un resumen de los principales hallazgos del informe de TE. Los hallazgos deben presentarse como declaraciones de hechos que se basan en el análisis de los datos.
- La sección de conclusiones se redactará a la luz de los hallazgos. Las conclusiones deben ser declaraciones integrales y equilibradas que estén bien fundamentadas con evidencia y conectadas lógicamente con los hallazgos de TE. Tanto las conclusiones como los hallazgos deben resaltar las fortalezas, debilidades y resultados del proyecto, responder a las preguntas clave de evaluación (ver la sección 4. Guía para la Conducción de Evaluaciones Terminales de Proyectos PNUD-FMAM) y brindar información sobre la identificación y / o soluciones a problemas importantes o cuestiones pertinentes para los beneficiarios del proyecto, el PNUD y el FMAM.
- Las recomendaciones dirigidas a los usuarios previstos de la evaluación deben ser concretas, prácticas, factibles y específicas. Estas se deben centrar en qué decisiones y acciones se pueden realizar con miras a asegurar la sostenibilidad de los resultados alcanzados por el proyecto y para proyectos a futuro. Las recomendaciones deben estar respaldadas específicamente por evidencias y estar vinculadas a los hallazgos y conclusiones en torno a preguntas clave abordadas por la evaluación.
- El informe de TE también debe incluir las lecciones que se puedan extraer de la evaluación, incluidas las mejores y peores prácticas para abordar cuestiones relacionadas con la relevancia, el desempeño y el éxito que pueden proporcionar conocimiento obtenido de la circunstancia particular (métodos programáticos y de evaluación utilizados, alianzas, apalancamiento financiero, etc.) que sean aplicables a otras intervenciones del FMAM y del PNUD. Cuando sea posible, el equipo de TE debe incluir ejemplos de buenas prácticas en el diseño e implementación de proyectos.
- Es importante que las conclusiones, recomendaciones y lecciones aprendidas del informe de TE incluyan resultados relacionados con la igualdad de género y el empoderamiento de las mujeres.

El informe de TE incluirá una tabla de calificaciones de evaluación, tal como se muestra a continuación:

Tabla 2: Tabla de calificaciones de evaluación

Monitoreo & Evaluación (M&E)	Calificación[2]
Diseño de Plan de M&E	(Puntaje del al 6)
Implementación del Plan de M&E	
Calidad General de M&E	
Implementación & Ejecución	Calificación
Calidad de la ejecución / supervisión del PNUD	(Puntaje del al 6)
Calidad de la ejecución del socio implementador	
Calidad general de implementación / ejecución	
Evaluación de resultados	Calificación
Relevancia	(Puntaje del al 6)
Eficacia	
Eficiencia	

Calificación general del resultado del proyecto	
Sostenibilidad	Calificación
Recursos Financieros	(Puntaje del al 4)
Socio-politica/economica	
Marco institucional y gobernanza	
Ambiental	
Overall Likelihood of Sustainability	

La escala de calificación es como sigue:
Las categorías de Resultados, Efectividad, Eficiencia, Monitoreo & Evaluación, Implementación & Ejecución y Relevancia se califican en una escala de calificación de 6 puntos, donde: 6 = Muy satisfactorio (MS), 5 = Satisfactorio (S), 4 = Moderadamente satisfactorio (MS), 3 = Moderadamente insatisfactorio (MI), 2 = Insatisfactorio (I), 1 = Muy insatisfactorio (MI). La sostenibilidad se califica en una escala de 4 puntos, donde: 4 = Probable (P), 3 = Moderadamente probable (MP), 2 = Moderadamente improbable (MI), 1 = Improbable (I).

6. Plazo del servicio

La duración total del TE será de **65 días calendario**. El cronograma tentativo de la TE es el siguiente:

Timeframe	Activity
(fecha)	Cierre de aplicaciones
(fecha)	Selección del Evaluador
A 1 día de la firma de contrato	Entrega de documentación al evaluador
A los 7 días de firma del contrato	Presentación del Informe Inicial de TE
A los 14 días de la firma de contrato	Finalización y validación del informe inicial de TE
A los 16 días de la firma del contrato	Misión de la TE: reuniones virtuales con las partes interesadas, entrevistas, entre otros
A los 33 días de la firma del contrato	Reunión de recapitulación de la misión y presentación de los hallazgos iniciales
A los 43 días de la firma del contrato	Entrega del borrador del informe TE
A los 45 días de la firma del contrato	Circulación del borrador del informe TE para comentarios
A los 55 días de la firma del contrato	Preparación y emisión de la respuesta de la gerencia
A los 65 días de la firma del contrato	Incorporación de comentarios sobre el borrador del informe TE en el rastro de auditoría y finalización del informe TE
A los 65 días de la firma del contrato	Fecha prevista de finalización de TE completa
En función a la fecha que se coordine con la Junta	Presentación virtual de los hallazgos y conclusiones a la Unidad Adjudicadora y otras partes interesadas.

Directiva del Proyecto y PNUD.	

7. Productos y cronograma de entrega

El/la técnico/a será responsable de entregar los siguientes productos:

Producto	Descripción	Plazo	Responsabilidad
Informe de Iniciación	El equipo de TE detalla los objetivos, la metodología y el calendario del TE	A más tardar **1 semanas** antes de las entrevistas virtuales	El consultor de la evaluación lo presenta a la Unidad Adjudicadora y al Equipo de proyecto
Presentación de Resultados Iniciales	Hallazgos Iniciales	**Dentro de la semana siguiente** a la culminación de las entrevistas	El consultor de la evaluación lo presenta a la Unidad Adjudicadora y al Equipo de proyecto
Borrador Informe Final	Borrador Informe Final completo con anexos *(de acuerdo con la plantilla de contenidos en el Anexo C de los TDR)*	Dentro de **las 2 semanas** de haber terminado las entrevistas virtuales	El consultor de la evaluación presenta el entregable a la Unidad Adjudicadora; revisado por Asesor Técnico Regional PNUD-GEF, Coordinador del proyecto y Punto Focal Operativo GEF
Informe Final* + Rastro de Auditoría	Informe final de la Evaluación revisado incluyendo el Rastro de Auditoría donde se detalla cómo la evaluación ha abordado (o no) en el informe todos los comentarios recibidos por parte de los socios y/o actores claves del proyecto (incluida versión en inglés y español) *(Ver plantilla en el Anexo H de los TDRS)*	Dentro de **2 semanas** siguientes a de haber recibido los comentarios	El consultor de la evaluación presente el entregable a la Unidad Adjudicadora

*La calidad de todos los informes finales de TE será evaluada por la Oficina de Evaluación Independiente del PNUD (OEI). Los detalles de la evaluación de la calidad de las evaluaciones descentralizadas de la OEI se pueden encontrar en la Sección 6 de las Directrices de evaluación del PNUD.[3]

Todos los productos se entregarán de manera virtual.

[3] Access at: http://web.undp.org/evaluation/guideline/section-6.shtml

8. Forma de Pago

Los pagos se realizarán vía transferencia bancaria, a la cuenta del titular del contrato, dentro de los 10 días calendarios siguientes a la recepción de la conformidad por parte de la Unidad Adjudicadora previa entrega del recibo por honorario, factura o documento que haga su vez en su país de origen, según el siguiente detalle:

Producto	Pago mensual	Condición de Pago
Primer Producto	20%	Aprobación del Informe inicial de EF
Segundo y Tercer Producto	40%	Presentación de resultados y entrega del borrador de informe
Cuarto Producto	40% (mediante firmas en el Formulario de autorización del informe de TE) y la entrega de la pista de auditoría TE completa	Aprobación del informe final y RTA

Para el pago del último producto, se deben cumplir los siguientes criterios:

- El informe final de la EF incluye todos los requisitos descritos en los TDR y está de acuerdo con la guía de la EF.
- El informe final de la EF está claramente escrito, organizado de forma lógica y es específico para este proyecto (es decir, no se ha cortado ni pegado el texto de otros informes de TE).
- Aprobación del informe final por parte de la Unidad Adjudicadora
- Presentación virtual de los hallazgos y conclusiones a la Unidad Adjudicadora y otras partes interesadas. - El Rastro de Auditoría incluye respuestas y justificación para cada comentario enumerado.

De acuerdo con las regulaciones financieras del PNUD, cuando la Unidad Adjudicadora (Oficina PNUD Perú) y / o el consultor determinen que un entregable o servicio no se puede completar satisfactoriamente debido al impacto de COVID-19 y limitaciones al TE, ese entregable o servicio no será pagado.

Debido a la situación actual de COVID-19 y sus implicaciones, se puede considerar un pago parcial si el consultor invirtió tiempo en el entregable pero no pudo completarlo por circunstancias fuera de su control.

9. Arreglos de implementación

La responsabilidad principal en la gestión de la presente Evaluación Final (ET) corresponde a la Unidad Adjudicadora de este proyecto que es PNUD Perú, la misma que está conformada por el área de Planificación Estratégica y la de Adquisiciones). La unidad de adquisiciones del PNUD Perú contratará al consultor/a, asegurará el suministro oportuno del paquete de información del proyecto. Asimismo, garantizará el pago oportuno de los productos entregados, previa conformidad de los productos entregados.

El Equipo del proyecto será responsable de mantenerse en contacto con el/la Evaluador/a para proporcionarle todos los documentos relevantes, organizar entrevistas con las partes interesadas, elaborando un cronograma.

La Unidad Adjudicadora deberá proporcionar al Evaluador una lista actualizada de partes interesadas con los datos de contacto (teléfono y correo electrónico).

El lugar de trabajado será remoto y deberá contar con su propia laptop.

Detrás de esta guía hay un principio de "no hacer daño" y una consideración de que la seguridad del personal, consultores, partes interesadas y comunidades es primordial y la principal preocupación de todos al planificar e implementar evaluaciones durante la crisis de COVID-19.

10. Perfil característico de la(s) persona(s) Naturales a contratar

El evaluador no puede haber participado en la preparación, formulación y/o implementación del proyecto (incluida la redacción del documento del proyecto), ni haber llevado a cabo la Revisión de mitad de período de este proyecto; tampoco debe tener conflicto de intereses con los actores relacionados con el proyecto.

8.1 Formación profesional:

- Maestría culminada en medio ambiente, ciencias, ingenierías, economía u otro campo afín.
- Deseable especialización, curso o seminario relacionado a: cambio climático, adaptación/ mitigación, planificación del territorio, entre otros.
- Fluidez en inglés y español escrito y hablado

8.2 Experiencia profesional y otros requisitos:

- 07 años de experiencia en temas energéticos, de cambio climático, cálculos de emisiones de carbono, MRV, contaminantes locales, NDC, huellas de carbono u otro campo a fin;
- 05 años de experiencia en la aplicación de indicadores SMART, ya sea en el marco del diseño, monitoreo o implementación de proyectos y reconstrucción o validación de escenarios iniciales (baseline scenarios).
- 05 años de experiencia en evaluación de proyectos se valorará si alguna experiencia es en temas de cambio climático.
- Deseable experiencia en evaluaciones y análisis sensibles a la interculturalidad y género.
- Deseable experiencia en evaluaciones/ revisiones de proyectos dentro del sistema de las Naciones Unidas.
- Deseable experiencia en la implementación de evaluaciones de forma remota.

11. Código de Conducta

El Evaluador estará sujeto a los más altos estándares éticos y debe firmar un código de conducta al aceptar la asignación. Esta evaluación se llevará a cabo de acuerdo con los principios descritos en las "Directrices éticas para la evaluación" del UNEG. El evaluador debe salvaguardar los derechos y la confidencialidad de los proveedores de información, los entrevistados y las partes interesadas a través de medidas para garantizar el cumplimiento de los códigos legales y otros códigos relevantes que rigen la recopilación de datos y la presentación de informes sobre datos. El evaluador también debe garantizar la seguridad de la información recopilada antes y después de la evaluación y los protocolos para garantizar el anonimato y la confidencialidad de las fuentes de información cuando se espere. El conocimiento de la información y los datos recopilados en el proceso de evaluación también deben utilizarse únicamente para la evaluación y no para otros usos sin la autorización expresa del PNUD y sus socios.

12. Anexos

Se adjunta los siguientes anexos:

- TDR Anexo A: Marco de resultados del proyecto
- TDR Anexo B: Documentación a ser revisada por el consultor
- TDR Anexo C: Contenido del informe de la TE
- TDR Anexo D: Formato de Matriz de Criterios de Evaluación
- TDR Anexo E: UNEG Código de Conducta del Evaluador
- TDR Anexo F: Escala de Calificaciones de la TE
- TDR Anexo G: Formulario de Aprobación del Informe de la TE
- TDR Anexo H: TE Rastro de Auditoría

Annex 2: Project results matrix

Annex A Project Results Framework

Objectives/ Results	indicators	Base	Final Goals of the Project	Source of verification	Risks and Assumptions
objective: Support the Government of Peru in the development and implementation of appropriate national mitigation actions in the energy sector	Evolution of baseline emissions	GHG inventory developed at the sectoral and national level	Energy GHG inventory detailed enough at regional and sub-sectoral levels to define clear reference conditions for NAMA implementation	Energy sector report of the GHG inventory	National GHG Inventory (INFOCARBONO) is established and operational
	NAMA's portfolio in the power generation and end-use sectors	There is no systematic assessment of mitigation measures in the energy sector	Complete assessment system of mitigation options in the energy sector is carried out and the portfolio of Potential NAMAs	Documentation and publications of the project	
	Implementation of at least two connected and non-grid renewable energy generation NAMAs.	There are no NAMAs in the off-grid renewable energy subsector in execution. There are no NAMAs in the renewable energy subsector within the grid in execution	At least one NAMA of renewable energy generation, off-grid, fully designed and in execution (one of which focuses on grid electrification with photovoltaic panels), including the applicationof MRV mechanisms	Project documentation, NAMA coordinating entity, MRV	The Government of Peru maintains its policy of increasing the participation of renewable energies in the power generation matrix.

Objectives/ Results	indicators	Base	Final Goals of the Project	Source of verification	Risks and Assumptions
			At least one NAMA for grid-connected renewable energy generation and/or energy efficiency fully designed and in the execution phase, including the application of MRV mechanisms.		
	Implementation of at least two energy efficiency NAMAs. (end use of energy).	There are no NAMAs in the energy efficiency subsector.	At least two fully designed and ongoing energy efficiency (energy end-use) NAMAs, including the implementation of MRV mechanisms.	Project documentation, NAMA coordinating entity, MRV	The Government of Peru maintains its energy efficiency policy.
	Creating and operating MRV protocols	There is no systematic methodology for monitoring ghg emission reductions in the energy sector	Protocols and procedures for NAMAs in the MRV energy sector fully designed and operational	MRV record	The Government of Peru remains committed to monitoring, reporting and verifying voluntary reduction programs

Objectives/ Results	indicators	Base	Final Goals of the Project	Source of verification	Risks and Assumptions
	Generation of non-conventional renewable energy connected and not connected to the National Grid.	Connected to the grid - 2.3% of the share of non-conventional renewable energies in the national power generation grid (Sistema National Interconnected). Not connected to the Network - No systematic monitoring of renewable energy generation.	Connected to the grid: 2.7% increase in the share of non-conventional renewable energy generation in the National Grid by 2018 (the official goal of the Government of Peru is5%). Not connected to the network – at least 50 additional generation MV outside the network.		
	Direct and indirect GHG emissions resulting from the project	N/A	MRV protocols are used to follow the following project objectives: Reduction of direct emissions by approximately 962,000 tons of CO2 by 10 years Reduction of indirect emissions of 1,600,000 tons of CO2 by 10 years	MRV Record	

Objectives/ Results	indicators	Base	Final Goals of the Project	Source of verification	Risks and Assumptions
Result 1: Baseline of GHG emissions at national and regional reference level (BAU) for the established energy sector.	A GHG inventory procedure validated by the relevant energy entities and consistent with INFOCARBONO and the National Balance of energy.	Existing legal procedure Supreme Decree No. 013-2014MINAM "Provisions for the Preparation of the National Inventory of Effect Gases Greenhouse – INFOCARBONO", whose operation will allow the development of institutional arrangements for the collection, evaluation and systematization of information related to the emission and removal of greenhouse gases for the subsectors included in the project.	Procedure appı Validated implemented ir quarter of 2016.	procedure signed by the representative of the responsible entity available in the internal database and website of the responsible entity. Entity TUPA modified responsible.	There is an internal budget for the development of these activities or it canbe managed by other co-founders' institutions for the period from 2015 to 2022. INFOCARBONO system available for 2017, avoiding delays in the structuring of procedures or delays/modifications in the future.
	A final report of a GHG inventory based on the approved procedure divided by	GHG emissions inventory by selected subsector is updated to 2010, on the	Updated inventory based on the approved procedure with the latest information available and required on an annual basis.	Formal inventory of reports approved the subsectors por available and to the	Same as above. Delays in the adoption of the formal procedure giving the guidelines and the

Objectives/ Results	indicators	Base	Final Goals of the Project	Source of verification	Risks and Assumptions
	sub-sector developed during the year. 2017.	basis of a formal methodology. Inventory to assess emissions and impact of actual mitigation activities is not updated periodically.		public by the entity in charge of its internal database and website.	expected inventory dates.
	BAU systematized and publicly available baseline reports for selected subsectors during 2014 and for a period not less than 2013 to 2021.	Non-existent updating and systematization of national or regional reference bases for BAU GHGs.	BAU baselines approved for the first half of 2016.	Formal reporting of baselines reference Business As Usual approved and available to the public by the entity in charge of its internal database and website	Same as above.
Outcome 2: Prioritized Mitigation Actions and Identified MACC (MACC, Cost Curve of Marginal Reduction), documents for NAMAs in the selected subsectors designed, and 4 NAMAs prepared for implementation.	1 sectorial MAC curve and 2 sub- MAC curves Sectoral	There are mitigation options identified under the PlanCC project. Non-existent MAC curves in the selected subsectors.	Format approved for the second half of 2016. Report of the MAC curve in the sectors and subsectors inside and outside the energy grid and final use of energy approved by the Project Management Committee.	Curve reports MAC approved and signed by the Management Committee of the Project, available to the public.	Clear and consistent financial information is available at the sub-sector level for analysis.

Objectives/ Results	indicators	Base	Final Goals of the Project	Source of verification	Risks and Assumptions
	Portfolio of activities and tabs name	There is no portfolio of generation NAMAs and the end use energy	Portfolio of NAMA's activities at the conceptual design level for power generation and end-use.	The project documentation. Documentation of Peruvian entity of coordination of NAMAs.	
	Policy and financing instruments for nama implementation in two subsectors selected defined	There is no current systematic evaluation of potential policies and instruments for developing renewable energy outside or in-grid and usor final energy in Peru.	A specific set of policies and financial instruments defined to support in-grid and off-grid NAMAs and energy efficiency.	Report adopted by ırmal a Steering committee Project and disposition public.	The Government of Peru maintains its policy of increasing the participation of renewable energies in the electricity generation matrix and promoting energy efficiency in the country.
	3 formal training sessions per subsector, in relation to the design of mitigation programs.	There are training sessions in different sectors, but they are not coordinated, without greater consistency in the people who attend, any systematic evaluation system and formal methodology for the NAMA development process.	The training sessions developed per year, including the content and methodology of evaluation. Two annual training sessions (one per sub-sector) will be held over the duration of the project	Content of training sessions and information approved by the NAMA entity. Attendance lists, reports by sessions and evaluation of documents by person.	

Objectives/ Results	indicators	Base	Final Goals of the Project	Source of verification	Risks and Assumptions
	Detailed design of 4 house	There are no nama concepts in any of the selected subsectors, therefore, ghg mitigation potentials, barriers, benefits, financial or responsible resources are not determined.	Design of NAMAs approved by the Project Steering Committee, based on a list of mitigation actions evaluated and prioritized, including funding sources containing coordinated institutional arrangements, and ready to start the pilot phase.	Resolutions ministerial or applicable legal documentation as evidence of NAMAs design information (internal budget, schedule and Activities agreed by the responsible entity or entities participating in the process).	This will be a financial commitment for renewable energies in and out of the electricity grid and energy efficiency by the Government of Peru that will continue throughout the project.
Outcome 3: (i) Entities related to grid-connected renewable energy (all technologies excluding large hydropower); (ii) off-grid renewable energy subsectors and (iii)energy end-use related to energy efficiency that	Execution of the activity NAMA #1 (off-grid renewable energy with panels photovoltaics)	Large-scale PV program scheduled for launch in 2014, but not listed as NAMAs	Photovoltaic electrification NAMA is fully operational and supports the installation of 500,000 photovoltaic panels. The installed capacity is expected to be 50 MW. MRV mechanisms in full operation.	Partner documentation in NAMA implementation, Entity Reports is from coordination national and MRV registry reports.	Program photovoltaic electrification does not suffer major alterations in its scope or financing.

Objectives/ Results	indicators	Base	Final Goals of the Project	Source of verification	Risks and Assumptions
they will contribute to achieving compliance with Peru' iNDC.	Implementation of the basis of the System Off-grid payments with photovoltaic systems.	Payment mechanisms for off-grid PV systems are not completely defined, energy and greenhouse gas reduction targets are not integrated.	Mechanism established for the payment for the delivery of energy services of the photovoltaic system off the grid, based on the independent assessment of compliance with the NAMA MRV protocol	Ministry of Energy, financial records of disbursements. Entity reports NAMA coordination	Program photovoltaic electrification does not suffer major alterations in its scope or in its financing
	Implementation of NAMA activity #2 (renewable energy and/or energy efficiency)	NAMA activity not defined.	NAMA out of network in full operation. MRV mechanisms in full operation.	Partner documentation in the implementation of the NAMA, National Report of NAMA Coordinating Entities, MRV Registry Reports	FISE continues to support grid electrification with renewable energy, as well as panel photovoltaic program. The Government of Peru continues to promote energy efficiency policies.
	Implementation of NAMA's #3 Activity (grid-connected renewable energy and/or energy efficiency)	NAMA activity does not set	Nama activity in full operation. MRV mechanisms in full operation.	Partner documentation in the implementation of the NAMA, National Report of Entities of	The Government of Peru maintains its policy of increasing the participation of renewable energies in

Objectives/ Results	indicators	Base	Final Goals of the Project	Source of verification	Risks and Assumptions
				coordination of NAMAs, MRV registry reports	the power generation matrix.
	Implementation of nama #4 activity (renewable energy) connected to the network)	NAMA activity does not Set	Nama activity in full operation. MRV mechanisms in full operation.	Partner documentation in the implementation of the NAMA, National Report of NAMA Coordinating Entities, MRV Registry Reports	The Government of Peru maintains its policy of increasing the participation of renewable energies in the generation matrix. The Government of Peru continues to promote energy efficiency policies.
	Implementation of MRV protocols and monitoring of GHG emission reductions related to NAMA	MRV protocols for Pilot NAMAs not still executed	MRV protocols are used to follow the following project objectives: Reduction of direct emissions of 962,000 tons of CO2 by 10 years Reduction of indirect emissions of 1,600,000 tons of CO2 by 10 years	Partner documentation in the implementation of the NAMA, National Report of NAMA Coordinating Entities, MRV Registry Reports	

Objectives/ Results	indicators	Base	Final Goals of the Project	Source of verification	Risks and Assumptions
Outcome 4: Precise mechanism for the measurement and accounting of actual GHG emission reductions from mitigation actions in the power generation and end-use sector.	MRV designed protocol	No MRV protocols executed	MRV protocols for NAMA in the energy sector designed and approved by the Committee managerial	Project documentation, management committee minutes	
	Application of the sector log energy MRV	No energy sector has an MRV record.	Energy sector has MRV registration.	Entity documentation NAMA Coordination.	The Government of Peru maintains its policy of achieving its voluntary emission reduction targets throughthe systematic application of NAMAs in the energy sector.
	The integration of climate change mitigation into the results-based budget programme of the Ministry of Economy and Finance.	Budget program based on operating results, without indicators related to climate change.	Climate change indicators incorporated into the results-based budget programme of the Ministry of Economy and Finance.	Documentation of the results-based budget programme	Results-based budgeting remains a planning and disbursement tool for the Ministry of Finance
	Implementation of the MRV procedures	There are no MRV procedures for NAMAs energy sector	MRV procedures implemented in all NAMAs energy-related activities	The reports of the MRV record	

Annex 3: Final evaluation questions

Evaluation Criteria	Questions	indicators	Sources
Relevance The extent to which an activity adapts to local and national development priorities and organisational policies, including changes over time. The extent to which the project is in accordance with the GEF operational programmes or strategic priorities on which the project was funded. Note: In retrospect, the question of relevance often becomes a question of whether the objectives of an intervention or its design are still adequate given the changing circumstances.	How is the project located in the national priorities and the regions where it is implemented?	i) Budget allocated by project partners for project-related activities; (ii) inclusion of the project theme in regional priorities; iii) improvement of data in GHG inventories, improvement in mitigation plans.	Work plans MINAE, MINEM and other project partners, budgets, interviews, documents and regional policies, minutes meetings Steering Committee.
	The project is aligned with the priorities of UNDP Peru and the GEF.	i) FMAM-5 operational planes targets; ii) UNDP-Peru country programme targets 2018-2021; iii) UNDAF Targets 2018-2021; (i v) UNDP corporate targets 2018-2021.	UNDP and UNDAF Peru work plans, budgets, interviews, national documents and policies, meeting minutes and development reports.
	Is the project important for municipalities or provinces?	i) N° activities related to inventories and mitigation in energy promoted by the project and supported by municipalities and regional public bodies.	Work plans, budgets, interviews, regional and local documents and policies, meeting minutes.
	How is the project embedded in the priorities and activities of local beneficiaries?	i) Rural energy mitigation plans for local communities; (ii) investments in mitigation activities and EE;	Work plans and communal budgets and interviews, local documents and policies, minutes meetings.
	How did the beneficiaries and key actors participate in the design and implementation stage of the project? Were local priorities included?	i) No consultations carried out; (ii) No adjustments to the project resulting from the consultations; (iii) ownership of project objectives at national, regional and local level.	i) Project preparation documents; (ii) interviews; (iii) Regional, territorial and local development policy documents.
	Does the project take into account national realities (policy framework and institutional) in both its design and implementation?	i) Degree to which the project supports GHG reductions, technical standards and regulations in the electricity sector; ii) Plans and programs of MINAM, MINEM, MEF, MTC and other partners; iii) Government policies and programs for the articulation of territorial support or the integration of financial instruments and MRV; iv) Assessment of key stakeholders regarding the level of adequacy of project design and implementation to existing national, local realities and capacities; v) Coherence between the needs expressed by national stakeholders and goals of the UNDP-GEF project;	i) Government Program 2018-2021; ii) Project documents; iii) Interviews with key project partners and stakeholders; iv) Plans, goals and budgets MINAM, MINEM, MEF, FISE, MTC and other partners

Evaluation Criteria	Questions	indicators	Sources
		vi) Level of involvement of government officials, government entities, municipalities and other partners in the project design process.	
	Are the objectives, results, outputs and activities still valid, given the current implementation context of the project?	i) Current environmental policy documents of MINAE, MINEM, MEF and beneficiaries among others; (ii) development of regulations related to the design, implementation and monitoring of GHGs; iii) there are goals and lines of the national and institutional budget with criteria of Climate Change, use of NCRE within MINAM MINEM, MEF; (iv) No. local communities or organizations using NCRE in households and commercial activities; (vi) Number of local municipalities that have incorporated rules on the use of EE and NCRE products.	Work plans, budgets, interviews, local policy documents, meeting minutes.
Effectiveness: The extent to which a goal was achieved or the probability that it will be achieved.	Are there logical links between the expected results of the project and the design of the project (in terms of project components, choice of partners, structure, implementation mechanisms, scope, budget, resource usage, etc.)?	i) Level of consistency between the expected results and the design of the internal logic of the project; ii) type of indicators to measure programme success (SMART); iii) analysis of key players; iv) Level of consistency between the expected results and the area covered by the selected actors; v) Increased use of NCRE, implementation of NAMA in the energy sector	Project documents, key project stakeholders, annual reports and budgets, mid-term evaluation, NCRE usage statistics, ee certified products, institutional purchases, electric transport bidding bases.
	What would be the additional contribution of the project to GHG inventory activities and mitigation activities in the area of in-grid and off-grid energy Are EE practices and labeled products a priority for stakeholders, especially in regions where NAMA is implemented? Is there an observable improvement in the data quality of GHG and MRV inventories for NAMA in the electricity sector?	i) Additional budget for inventory and MRV activities, technical support and capacity building; (ii) inclusion of project themes in local priorities of municipalities, businesses and communities; (iii) inclusion of techniques to verify improvements in GHG inventories and regulations to improve MRVs at the national and regional levels.	Work plans, annual budgets, interviews, local documents and policies, meeting minutes.

Evaluation Criteria	Questions	indicators	Sources
	Is the proper management of GHG and EE emission mitigation actions a priority for key actors, especially for localities where trainings and pilot projects are carried out?	i) Existence of coordinated strategies and actions to implement inventories and MRVs in the energy sector; (ii) Level of participation in the project of MINAM regions and regional offices, MINEM in the areas of project intervention; (iii) monitoring and monitoring plans for ongoing NAMAs; (iv) plans for the expansion of electric mobility and financing mechanisms for new NAMAs.	Work plans, annual budgets, interviews, documents and policies, minutes meetings.
	To what extent are the objectives of the project, both national and regional and local, being met?	ii) Involvement of actors in national NAMA implementation strategies in different sectors with regional/municipal implementation; (ii) existence of national/regional plans to introduce NCRE and EE products into the purchases and activities of state agencies; (iii) Number of new mitigation actions under way or planned at the national/regional level; (iv) increased use and infrastructure of public electric transport; (v) Number of financing instruments and regulations under implementation to promote the use of NCRE in generation and end uses; vi) number of equipment/processes certified in the U.S.	Annual reports, activities, interviews.
	Was it possible to involve the relevant authorities and actors, at national, regional and local level, in establishing a NAMA management system and its follow-up? Has the training strengthened the control and policy-making, regulatory and technical standards bodies?	i) No contacts of national and local authorities; (ii) No regional/local plans on the use of EE and NCRE products in power generation and end-uses; (iii) amount of resources allocated by actors to EE activities, nama development and monitoring; (v) Number of new NAMAs; (vi) Number of trainings for national and local actors	Reports, interviews, regional and local plans.
	To what extent are we being able to identify the best cost-effective alternatives to promote the introduction of NCRE in the electricity sector?	i) Number of financial support alternatives identified; (ii) Number of financial instruments identified and in use; (iii) Number of mitigation experiences and MRVs.	Reports, studies, interviews, regional, local and national plans

Evaluation Criteria	Questions	indicators	Sources
	Are viable alternatives identified for NCRE and EE practices in the electricity sector and final consumption?		
	Was it possible to identify the needs for change/introduction of new regulations that facilitate the elimination of barriers to make effective the activities of inventory improvement, the coordinated management of mitigation measures and their compliance in the electricity sector?	i) N° studies on institutional, technical and economic barriers and viable alternatives of NCRE and EE in the electricity sector; (ii) No agreements between relevant authorities and actors to promote and implement new measures and instruments; iii) No. draft regulations in process or identified, for the introduction of NCRE and EE in the electricity sector, iv) elimination of overlapping of competences between different agencies and development of effective and permanent articulation mechanisms between government institutions and citizen organizations and the private sector.	Reports, studies, interviews, regional and national plans.
	It has been possible to incorporate women, youth and indigenous communities in activities specially designed for these groups	i) No. workshops and consultations with specific groups for the design of activities; ii) Percentage of projects and activities headed by women, youth and indigenous people, iii) Gender inclusion strategies with their respective indicators and expected results.	Consultancy reports, institutional and project plans and programs.
Efficiency: Is the project being implemented efficiently in accordance with international and national norms and standards?	Annual work plans in line with project resources and objectives?	iv) Plans and budgets according to expected results.	Annual plans, budgets, interviews.
	Were necessary adjustments made to deal with different situations (adaptive management)?	i) Plans and budgets according to expected results	Annual plans, minutes meetings, reports, mid-term evaluation, budgets, interviews, substantive review, risk analysis, PIR.
	Was an activity monitoring and evaluation system implemented?	i) N° indicators, ii) goals; (iii) No adjustments made; (iv) Number of meetings and strategic decisions taken by the Project Steering Committee; (v) monitoring plans drawn up.	Annual plans, reports, interviews.
	Were the activities, products and results carried out as planned?	i) N° activities; (ii) % progress; (ii) Number of key actors involved in the project.	Annual plans, reports, interviews.

Evaluation Criteria	Questions	indicators	Sources
	How were the risks and assumptions of the project handled?; What has been the quality of the mitigation strategies developed?	i) Integrity of the identification of risks and assumptions during project planning and design; ii) Quality of the information systems established to identify emerging risks.	Project documents; quarterly and annual progress reports; project team, UNDP and key stakeholders.
	Was it possible to raise counterpart and/or additional resources for the objectives of the project?	iii) Amount of resources allocated by project partners; iv) Level of involvement of project partners. v) Existence of budget lines for complementary/project-related activities in partner organizations.	Annual plans of the project and its partners incorporating resources into the project, budgets, reports of expenses in cash and in kind by the project partners, interviews, annual audits.
	What other projects with national and/or international funding are being implemented in the same territories as the GEF-Chemicals project and how are they linked to it?	i) Number and name of projects identified with national and/or international funding and; ii) Number of coordination actions established between the GEF-NAMA project and the other projects identified.	Project progress reports, annual work plans, reported budgets and interviews with the project team and UNDP and stakeholders.
Results: Positive and negative changes, expected and unforeseen and the effects produced by a development intervention. In GEF terms, the results include the direct performance of the project, in the short to medium term, and the longer-term impact that includes global environmental benefits, repeat effects and other local effects.	The project is triggering and/or influencing mitigation activities in the energy sector, incorporating financing to improve inventories and MRVs?; Has it been possible to improve or introduce regulations to introduce NCRE and EE measures in state and industry agencies? Have ghg emissions in the electricity and transport sector been reduced?	i) N° financial instruments in implementation; (ii) Number of beneficiaries of financial instruments; (iii) Number of new NAMAs and EE practices introduced; (iii) Number of institutional arrangements to implement new NAMAs and EE activities; iv) amount of training to end users on these new EE practices and potential mitigation measures.	Annual plans, budgets, reports, interviews.
	To what extent are negative impacts to climate and economic activities being minimized through regulatory and GHG mitigation activities What factors have contributed to achieving or not achieving the planned results?	i) Number and effectiveness of activities promoted by NAMA and EE; ii) number and effectiveness of activities that have led to regulating energy-efficient products and processes and EE actions; and iii) Number and effectiveness of promotional activities that helped users accept new NCRE and U.S. actions	Project progress reports, annual work plans, reported budgets and interviews with the project team and UNDP and project beneficiaries (e.g. trained national and regional authorities, collaboration with universities).

Evaluation Criteria	Questions	indicators	Sources
	Have permanent networks for the exchange of experiences between project actors been established? Has it been possible to raise awareness among national, regional and local actors of the effect of global environmental problems on their immediate environment?	i) Number of stable coordination bodies between the actors; ii) Number of training workshops held; iii) Number of practices implemented thanks to this exchange	Annual plans, budgets, reports, interviews, training reports, minutes of community meetings
	Has it been possible to see the improvement of capacities to prepare GHG inventories, design, implement and monitor mitigation activities in the country?	i) No. trainings carried out; ii) Number of public and private bodies with enhanced capacities iii) No. public institutions with responsibilities for inventories, oversight and strengthened national reports.	Annual plans, budgets, reports, interviews., training reports
	Has a response been achieved - even if partial - to the specific needs and aspirations of women within the actors involved?	i) No consultation with women during the process of drawing up and implementing community plans and programmes; ii) Number of community management plans including aspirations of women and other vulnerable groups; iii) Change in perception of women's role before and after the program iv) Number of studies carried out	Project work plans, progress reports, consulting reports, interviews with communities and specifically women.
	Has a response - even a partial one - been achieved to the specific needs and aspirations of indigenous communities?	i) No indigenous consultations during the project development and implementation process; ii) Number of plans including aspirations of indigenous communities and other vulnerable groups; iii) Change in perception of the role of indigenous communities before and after the programme iv) Number of studies carried out	Project work plans, progress reports, consultancy reports, community interviews
Sustainability: The likely ability for an intervention to continue to provide benefits for a period after its completion. The project must be	What are the most important challenges that could hinder the sustainability of the project results?	i) Number of medium- and long-term activities related to the objectives of the project. ii) Number of stakeholders from the public and private sectors willing to continue mitigation and EE actions in the country.	Policies/laws, annual plans public and private organizations, budgets, reports, interviews

Evaluation Criteria	Questions	indicators	Sources
environmentally, financially and socially sustainable.	Will relevant authorities and actors at the national and regional levels be able to continue implementing activities when the project is completed?	v) Number of plans to identify medium- and long-term GHG mitigation opportunities; vi) amount of permanent human and financial resources for training, planning, identification and monitoring of mitigation actions for national, regional authorities and companies; vii) budgets related to technical and financial support for local NCRE and EE programs; viii) permanent EE budgets and practices and use of NCRE in the electricity and transportation sector; ix) National articulation/integration policy/regulations/technical standards to constitute a management system for GHG mitigation inventories and measures based on the technical, financial and capacity-building support instruments available to government agencies and other partners	Policies/laws, annual plans, budgets, reports, interviews.
	Are relevant authorities and actors at the national and regional levels acquiring the skills and knowledge to maintain and improve a national GHG inventory and reporting system?	i) N° trainings carried out; ii) No medium- and long-term plans; iii) Improvements in GHG statistics at the national and regional levels;	Annual plans, budgets, reports, interviews.
	Are there any impediments to the continued participation of women and indigenous people in the identification and implementation of GHG mitigation measures?	i) Number of women-led organizations; ii) Number of community organizations with ongoing funding for mitigation and training activities. iii) Number of women participating in the electricity sector and mitigation actions at all levels	Project progress reports, institutional support plans, projects submitted by communities.
	To what extent are project results likely to depend on continued financial support?	i) Number of mitigation activities and EE with own resources. ii) GHG inventories, reports to the convention with stable budgets for operation and updating.	Annual plans, budgets, reports, interviews.

Evaluation Criteria	Questions	indicators	Sources
	Are there social, political, economic or technical factors that prevent the formulation of plans, policies and regulations and the maintenance of financing instruments to improve GHG inventories and emission reduction actions?	iii) Number of agreements and/or cooperation between social and business actors; (ii) amount of resources allocated to the topic (human and financial); (iii) No. medium- and long-term institutional plans; (iv) long-term financing schemes for farmers and miners	Annual plans, budgets, reports, interviews.
	Are stakeholders likely to have or achieve an adequate level of "ownership" of the results, and is there a commitment and interest in ensuring that the benefits of the project are maintained?	iv) Number of agreements and/or cooperation between social actors and government development entities; (ii) the amount of resources allocated to the issue by communities and related government entities (human and financial); (iii) No medium- and long-term institutional plans.	Annual plans, budgets, reports, interviews.

Annex 4: List of Revised Documents

No.	Document
1	04-09-2014_Council_document.pdf
2	04-13-2012-ID4884-Peru-ReviewSheet.pdf
3	201407 NAMA PRODOC.pdf
4	2017-PIR-PIMS4679-GEFID4884.docx
5	2018_Presupuesto, plan de trabajo y plan de adqusiciones.pdf
6	2018-GEF-PIR-PIMS4679-GEFID4884.docx
7	2019-GEF-PIR-PIMS4679-GEFID4884.docx
8	2020-GEF-PIR-PIMS4679-GEFID4884_NAMAS ENERGIA_Final.docx
9	4884-2012-05-10-100206-STAPReviewAgency.pdf
10	5-INFOCARBONO-junio-Peru-Isabel-Malaga-5.pdf
11	AAA 88316 ac al 28022021.xlsx
12	acceso-universal-a-la-energia-y-tecnologias-renovables.pdf
13	ACPI NAMAS.pdf
14	Acta de 04-04-2018.pdf
15	Acta de 05-04-2016.pdf
16	Acta de 05-12-2017.pdf
17	Acta de 06-12-2016.pdf
18	Acta de 07-01-2019.pdf
19	Acta de 17-04-2018.pdf
20	Acta de 27-11-2019.pdf
21	Agenda Inicio PIMS 4679_Final_Junio2016.docx
22	Analisiss_diseno_modelo_negocio_financiacion_buses_electricos_Lima.pdf
23	ANEXO 2 Marco genérico de MRV Minuta Digital.pdf
24	ANEXO A. Matriz de Progreso en el logro de Resultados - FINAL.pdf
25	Anexo NAMA Energia.pdf
26	Annex 1_Project_Extension_Request_Form_06.01.2020.docx
27	Annex 1_Project_Extension_Request_Form_Julio2020.docx
28	Annex 1_Report_RAGEI 2014.pdf
29	Annex 1_Report_RAGEI 2014.pdf
30	Annex 2_MINAM_Approval_RAGEI_2014.pdf

Nº	Document
148	Annex_40a_Meeting_Cajas_Financiamiento_Green_Credit.docx
149	Annex_40b_Generación de portafolio verde_GIZ_apoyo de la GIZ.pdf
150	Annex_40c_Presentacion_Final_Financiamiento_Sistemas_Solares.pdf
151	Annex_41_MOU_Cajas_Financiamiento_Green_Credit.docx
152	Annex_41c_Cocinas Limpias 21x21 ALTA Curvas.pdf
153	Annex_41d_Energia Solar ALTA Curvas.pdf
154	Annex_41e_A construir_Cocinas Limpias previo 21 jun.pdf
155	Annex_41f_A construir_Energia solar previo 21 jun.pdf
156	Annex_42a_Preliminary_MRV_Clean_Cookstoves_Part1.pdf
157	Annex_42b_Preliminary_MRV_Clean_Cookstoves_Part2.pdf
158	Annex_43_Mecanismo_Financiero_Ergon_OFICIO No 452-2017-MEM-DGER.pdf
159	Annex_43a_Letter_Requesting_Technical_Assistance_IDB.pdf
160	Annex_43b_Kickoff_Meeting_Technical_Assistance_IDB_Electric_Buses.pdf
161	Annex_43c_Acta_Kickoff_Meeting_Technical_Assistance_IDB_Electric_Buses.docx
162	Annex_43c_Extension_Convenio_GIZ_Marzo_2018.pdf
163	Annex_43d_Extension_Convenio_GIZ_Junio_2018.pdf
164	Annex_43e_Acta_4Oct2018_Midis_Cocinas.pdf
165	Annex_43f_Acta_11Oct2018_Midis_Cocinas.pdf
166	Annex_43g_Acta OSCE_28Agosto2018.pdf
167	Annex_45a_Evaluation_RER_Model.xlsm
168	Annex_45a_Lineamientos para MRV de NAMAs del sector energía.pdf
169	Annex_45b_Respuesta MINAM a Lineamientos MRV.pdf
170	Annex_45c_Carta MINEM convenio_Cajas.pdf
171	Annex_46b_INFORME DE TALLER LEAP_Febrero 2017.pdf
172	Annex_47a_Actions_Energy_Sector_Green_Growth_Strategy_MEF.docx
173	Annex_47a_Oficio capacitación general_LEAP.pdf
174	Annex_47b_Ayuda memoria Crecimiento verde.docx
175	Annex_47b_Desarrollo del INFOCARBONO - MINEM..pdf
176	Annex_47c_Capacitación general 25-05-17.pdf
177	Annex_47d_Capacitación DGE 09-06-17.pdf

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31	Annex 4_Implmenting Partner Request.pdf	178	Annex_48a_POI-2017.pdf
32	Annex_1_Report_RAGEI 2014.pdf	179	Annex_48b_POI-2018.pdf
33	Annex_10_Diagnostic_Study_NAMA_Eficiencia_Energetica.PDF	180	Annex_4a_Design Electric Transport NAMA.pdf
34	Annex_10_Diagnostic_Study_NAMA_Electric_Transport.pdf	181	Annex_5_Design_Grid_Connected_RER_NAMA.pdf
35	Annex_11_Diagnostic_Study_NAMA_Acceso_Universal_Electrification_Rural.pdf	182	Annex_50a_Oficio_Envio_Certificados_SENCICO.pdf
36	Annex_11_Diagnostic_Study_NAMA_Grid_Connected Renewable Energy.pdf	183	Annex_52_Propuesta_Escuela_Energetica_Mujeres.pdf
37	Annex_11_Presentacion_NAMAs_Energia_4Mayo2016.pdf	184	Annex_53a_M1 Energia solar BAJA.pdf
38	Annex_12_Diagnostic_Study_NAMA_Clean_Cooking.pdf	185	Annex_53b_M2 Sistema fotovoltaicos BAJA.pdf
39	Annex_12_Diagnostic_Study_NAMA_Eficiencia_Energetica.PDF	186	Annex_53c_M1 Cocinas Limpias BAJA.pdf
40	Annex_13_Diagnostic_Study_NAMA_Clean_Cooking.pdf	187	Annex_53d_M2 CocinasMejoradas BAJA.pdf
41	Annex_13_PV_Installation_Reports_Ergon.zip	188	Annex_53d_Modulo III. EMujer.pdf
42	Annex_14_Diagnostic_Study_NAMA_Acceso_Universal_Electrification_Rural.pdf	189	Annex_56a_Brochure_Impacto_Etiquetado.pdf
43	Annex_14_PV_Installation_Chronogram_Ergon.PDF	190	Annex_58b_Respuesta MINAM a Lineamientos MRV.pdf
44	Annex_15_Diagnostic_Study_NAMA_Clean_Cooking.pdf	191	Annex_5a_Entrega RAGEI 2016.pdf
45	Annex_15_Project_Proposal_Firm_Capacity_RER.pdf	192	Annex_5a_Entrega RAGEI 2016.pdf
46	Annex_16_Presented_Supreme_Decree_Modifying_Firm_Capacity_RER.pdf	193	Annex_5b_Comentarios_MINAM_RAGEI 2016.pdf
47	Annex_16b_Resumen_Sistemas_FV_Instaladas_Ergon_Junio_2019.pdf	194	Annex_5b_Respuesta sobre estado de revisión RAGEI 2016.pdf
48	Annex_17_MINEM_Boletin_RER_AbriI_2019.pdf	195	Annex_60_Propuesta Protocolo_COVID19_NAMAs.pdf
49	Annex_17_Proposal_Energy_Bloques_RER.pdf	196	Annex_61a_Brochure_NAMA_Universal_Access.pdf
50	Annex_18_Curvas_MAC_Second_Deliverable.pdf	197	Annex_61b_Brochure_NAMA_Eficiencia_Energetica.pdf
51	Annex_18_Emissions_Factor_SEIN.pdf	198	Annex_61c_Brochure_NAMA_RER_Conectado.pdf
52	Annex_19_Boletin_RER_Abril_2019.pdf	199	Annex_61d_Brochure_NAMA_Transporte_Electrico.pdf
53	Annex_19_Oficio N°251-2020-MINEM-DGER.pdf	200	Annex_62_Act_Directive_Committee)27Nov2019.pdf
54	Annex_19a_Emissions_Factor_Validation_Findings_Report.pdf	201	Annex_6a_Design Electric Transport NAMA.pdf
55	Annex_19b_Emissions_Factor_Validation_Report_Annex.pdf	202	Annex_6a_Diseño Detallado de la NAMA_Eficiencia_Energetica.PDF
56	Annex_20_Boletin_RER_April_2020_final.pdf	203	Annex_7_Baseline_Universal_Access_to_Sustainable_Energy.pdf
57	Annex_20_Letter_of_Interest_Universities_PV_Pilot.pdf	204	Annex_7_Design_Grid_Connected_RER_NAMA.pdf
58	Annex_20a_Oficio de MINEM hacia punto focla (MINAM)_EF_SEIN.pdf	205	Annex_8_Diagnostic_Study_NAMA_Electric_Transport.pdf
59	Annex_20b_Informe_Propuesta_Emissions_Factor_SEIN.pdf	206	Annex_8a_Diseño Detallado de la NAMA_Eficiencia_Energetica.PDF
60	Annex_20c_Emissions_Factor_Validation_Findings_Report.pdf	207	Annex_9_Diseno NAMA Acceso Universal E3 Final.pdf
61	Annex_20d_Oficio_MINAM_Response_Emissions_Factor_SEIN.pdf	208	Auditoria_2017.pdf
62	Annex_21_Expediente 2716012 RAGEI_Respuesta_MINAM.pdf	209	Auditoria_2019.pdf
63	Annex_21_Lineamientos para MRV de NAMAs del sector energía.pdf	210	Auditoria_2020.PDF
64	Annex_21_Prepublicacion_Potencia_Firme_RER.pdf	211	avande proyecto a abril de 2020_PNUD_Presentacion.xlsx

No.	Document
65	Annex_22_Estudio_Berkeley_Cocinas_Mejoradas_Segundo_Entregable_Clean.pdf
66	Annex_22_Respuesta MINAM a Lineamientos MRV.pdf
67	Annex_22a_Plataforma_MRV_NAMAs.pdf
68	Annex_22b_Pase_Produccion_Plataforma_MRV.pdf
69	Annex_23_Informe_Estudio_Rendimiento_Buses_Lima.pdf
70	Annex_23a_Estudio_Iquitos_NREL.pdf
71	Annex_23a_Indicadores 4 NAMAs.xlsx
72	Annex_23b_INDICADORES - NAMA RER CONECTADO.xlsx
73	Annex_23c_INDICADORES -NAMA EFICIENCIA ENERGETICA.xlsx
74	Annex_23d_INDICADORES -NAMA TransElectrico.xlsx
75	Annex_24_Diagnostic_Study_NAMA_Electric_Transport.pdf
76	Annex_24_MEM_Summary_Report_Participation_RER_June_2018.docx
77	Annex_24a_Oficio_149-2019-DGCCD MINEM.pdf
78	Annex_25_Diagnostic_Study_NAMA_Grid_Connected Renewable Energy.pdf
79	Annex_25a_Tentative_Action_Programs_Clean_Cooking.docx
80	Annex_25b_Tentative_Action_Programs_Off_Grid_RER.docx
81	Annex_26_Diagnostic_Study_NAMA_Eficiencia_Energetica.PDF
82	Annex_26_Entregable Final Estudio_Etiquetado.pdf
83	Annex_26a_Acta_Meeting_Multisectorial_Work_Group.docx
84	Annex_26b_Meeting_Multisectorial_Work_Group_Assistance.pdf
85	Annex_26c_Meeting_Multisectorial_Work_Group_Assistance.pdf
86	Annex_26d_Multisectorial_Meetings_Dialoguemos_Overview.pdf
87	Annex_27_Diagnostic_Study_NAMA_Acceso_Universal_Electrification_Rural.pdf
88	Annex_27_PL Marco VEH- - Versión de trabajo_Aportes NAMAS.docx
89	Annex_27a_Oficio Solicitud OSCE_2018.pdf
90	Annex_27b_Acta_Reunion_OSCE_2018.pdf
91	Annex_27c_Oficio Solicitud OSCE 28 10 19_F.pdf
92	Annex_28_Diagnostic_Study_NAMA_Clean_Cooking.pdf
93	Annex_28_Propuesta_FISE_Entregable.pdf
94	Annex_29_Prepublicacion_Potencia_Firme_RER.pdf
95	Annex_29a_Collaboration_MIDIS_MEM_Clean_Cookstoves.pdf
96	Annex_29b_Confirmation_Collaboration_MIDIS_MEM_Clean_Cookstoves.pdf

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212	Carta PNUD 00081 a MINEM - Cofinanciamiento PNUD.docx.pdf
213	CATALOGO_MITIGACION_baja_con_observaciones_levantadas_MInam_peru.pdf
214	CDR firmado.pdf
215	CEO Endorsment.pdf
216	Cofinanciamiento_Todos.zip
217	CPD_Peru_2017-2021.pdf
218	Declaracion_Cofinanciamiento_MINAM_Feb2019.pdf
219	designacion de miembros a comite directivo - namas.docx
220	designacion de miembros a comite directivo -PRODUCE.docx
221	Designacion de representante Produce Ene 2019.pdf
222	Designacion_MEF_2016.pdf
223	Designacion_MEF_2017.pdf
224	Designacion_MEF_2019.pdf
225	Designacion_MINAM_2016.pdf
226	Designacion_MINAM_2017.pdf
227	Designacion_PNUD_2016.pdf
228	Designacion_PNUD_Nov2019.pdf
229	Designacion_Produce_2016.pdf
230	Designacion_Produce_2017.pdf
231	Designacion_Produce_2019.pdf
232	Designacion_Produce_Nov2019.pdf
233	Diagnostico de NAMA RER Conectado.pdf
234	Directrices-MRV-Namas.pdf
235	Directrices-MRV-Namas_Chile.pdf
236	DS-013-2014-MINAM_infocarbono.pdf
237	Ficha Auditorias Energeticas.pdf
238	Guia de Auditorias Energéticas.pdf
239	Guia-de-Transporte-Cambio-Climatico-y-Calidad-de-Aire-SET2020-1.pdf
240	Informe Final Revision Medio Termino Proyecto NAMAs.pdf
241	Informe_completo_Estudio_NUMES_2012.pdf
242	Informe_T1_2019_NAMAs.pdf
243	Informe_T1_2020_NAMAs_Final.pdf

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97	Annex_29c_Acta_Meeting_Agreements_Responsibilities_MIDIS_MEM_Clean _Cookstoves.pdf	244	Informe_T2_2019_NAMAs.pdf
98	Annex_2a_MINAM_Approval_RAGEI_2014.pdf	245	Informe_T2_2020_NAMAs_Final.pdf
99	Annex_3_REPORTE ANUAL DE GASES DE EFECTO INVERNADERO 2016.pdf	246	Informe_T3_2019_NAMAs.pdf
100	Annex_30_Interinstitucional_Agreement_Electric_Bus_Pilot_Project.pdf	247	Informe_T3_2020_NAMAs_Final.pdf
101	Annex_30a_Primer entregable _Propuesta_FISE_Cocinas_Limpias.pdf	248	Informe_T4_2019_NAMAs.pdf
102	Annex_31a_Evaluation_Rural_Electrification_Programs_Part1.pdf	249	Informe_T4_2020_NAMAs_Final.pdf
103	Annex_31a_Extension_Convenio_GIZ_Marzo_2018.pdf	250	Informes_2016.pdf
104	Annex_31b_Evaluation_Rural_Electrification_Programs_Part2.pdf	251	Informes_2017.pdf
105	Annex_31b_Extension_Convenio_GIZ_Junio_2018.pdf	252	Informes_2018.pdf
106	Annex_32a_Final_Report_Proposal_Energy_School_for_Women.pdf	253	Lista de participantes al taller NAMAS 16 DE JUNIO.pdf
107	Annex_32b_Agreements_Implemementation_Pilot_Energy_School_for_Women.pdf	254	M1 Cocinas Limpias BAJA.pdf
108	Annex_32c_Extension_Convenio_GIZ_Marzo_2018.pdf	255	M2 CocinasMejoradas BAJA.pdf
109	Annex_32d_Extension_Convenio_GIZ_Junio_2018.pdf	256	Management Response Plan NAMAs Energia_Final.docx
110	Annex_32e_Acta_4Oct2018_Midis_Cocinas.pdf	257	Mapa_Intervencion_Proyecto.jpeg
111	Annex_32f_Acta_11Oct2018_Midis_Cocinas.pdf	258	Memo_DGER_Cofinanciamiento.pdf
112	Annex_32g_Acta OSCE_28Agosto2018.pdf	259	MINUTOS REUNION 17 JUNIO 2016 PROYECTO NAMAs_V2.docx
113	Annex_33_Impuesto_Selectivo_Vehiculos_Electricos_DS Nº 095-2018-EF.pdf	260	NAMA_PRODOC_Firmado.pdf
114	Annex_33a_Impuesto_Selectivo_DS Nº 095-2018-EF.pdf	261	Oficio 018 2021 EF 62.01.pdf
115	Annex_33c_DS_N__012-2019-MTC.pdf	262	OFICIO 0341-2020-MINEM-DGEE.pdf
116	Annex_33d_DS_N__027-2019-MTC.pdf	263	Peru NAMA PIMS 4679 Mitigation Tracking Tool V2.xlsx
117	Annex_34_Prepublicacion_Generacion_Distribuida.pdf	264	PIMS NAMAS PIF.pdf
118	Annex_34a_Agenda LEAP Workshop Lima Feb 2017_v2.pdf	265	PIR training for Country Offices and Project Teams LAC.pdf
119	Annex_34b_INFORME DE TALLER LEAP_Febrero 2017.docx	266	Plan de trabajo x indicadores -2016.xlsx
120	Annex_34c_Lista_de_Asistencia_Taller_Leap.pdf	267	Plan deTrabajo y Adquisiciones 2019 NAMAs.xls
121	Annex_35a_Agenda LEAP Workshop Lima Feb 2017_v2.pdf	268	Plan Peru PEDN-2021-15-07-2016-RM-138-2016-PCM2.pdf
122	Annex_35a_Oficio capacitación general.pdf	269	Plan_de_Trabajo_Proyectado_Oct2020.xlsx
123	Annex_35b_INFORME DE TALLER LEAP_Febrero 2017.pdf	270	PNUD TALLER 160616.pdf
124	Annex_35c_Capacitación general 25-05-17.pdf	271	POI_2019.pdf
125	Annex_35c_Lista_de_Asistencia_Taller_Leap.pdf	272	POI_2020.pdf
126	Annex_35d_Capacitación DGE 09-06-17.pdf	273	POI_2021.pdf
127	Annex_36a_Oficio capacitación general_LEAP.pdf	274	ppto 2016 y regformulación-2016 - NAMA.xlsx
128	Annex_36a_Presentation_NAMA_Designs_Directive_Committee_4April2018.pdf	275	Presentacion_Directora_NAMAs_Energia_16Junio.pdf
129	Annex_36b_Desarrollo del INFOCARBONO - MINEM..pdf	276	Presentacion_NAMAs_Energia_16Junio2016.pdf

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130	Annex_36c_Capacitación general 25-05-17.pdf	277	Presentacion_Proyecto_NAMAs.pdf
131	Annex_36d_Capacitación DGE 09-06-17.pdf	278	PRIMERA ACTA DE REUNION 4 MAYO 2016 PROYECTO NAMAs.docx
132	Annex_37_Acta_Meeting_Steering_Committee_05Dec2017.pdf	279	PRODUCE_Comite_Directivo.pdf
133	Annex_37a_Workshop_NREL_Lista de asistentes - Día 1.pdf	280	PROSEMER_MINEM_consultorías.xlsx
134	Annex_37b_Workshop_NREL_Lista de participantes - Día 2.pdf	281	PUB_Energy_end_Use_technologies_for_21st_Century_2004_ESP_WEC.pdf
135	Annex_37c_Workshop_NREL_Lista de asistentes - Día 3.pdf	282	Ratificacion_Designacion_PNUD_2019.pdf
136	Annex_38_Training_Workshops_NREL_Visit_Iquitos.pdf	283	REPORTE AL I TRIMESTRE.pdf
137	Annex_38a_Pre_Pilot_Evaluacion Cocinas Solares y Gasificadores MEM-PNUD_Def.pdf	284	REPORTE AL II TRIMESTRE.pdf
138	Annex_39_Work_Plan_Rural_Electrification_Study_MINEM.pdf	285	REPORTE AL III TRIMESTRE.pdf
139	Annex_39a_Womens_Training_Workshop_EMujer_Cusco_Clean_Cookstoves .pdf	286	REPORTE AL III TRIMESTRE.pdf
140	Annex_39b_Womens_Training_Workshop_EMujer_Puno_PV_Systems.pdf	287	REPORTE AL IV TRIMESTRE.pdf
141	Annex_3a_Inventory_GHG_2015.xlsx	288	REPORTE ANUAL DE 2016.pdf
142	Annex_3b_Informe N°003_Presentación RAGEI2016.pdf	289	Reporte del Taller de Inicio Proyecto NAMA Rev.Final.pdf
143	Annex_3b_Inventory_GHG_2016.xlsx	290	Reporte Taller Arranque.pdf
144	Annex_3c_Memo-2020 VME_v30.06.2020_V2.docx	291	Reviewed Final corrected version of MTR NAMA - E. Durand.pdf
145	Annex_3d_OficioVME-2020-RAGEI_V29.06.2020.doc	292	RISK LOG.docx
146	Annex_40_Propuesta_Escuela_Energetica_Mujeres.pdf	293	SESP_NAMAs.docx
147	Annex_40_Segundo informe_Curvas_MAC.pdf	294	Social_Environmental_SP_NAMA Acceso Universal.docx

Annex 5: List of interviewees

No.	*Name*	*Institution*	*Role*
1	Jose Luis Valverde	Development Bank of Peru (COFIDE)	Financing options for technologies and businesses related to efficient and sustainable energy
2	Jose Luis Torres de la Piedra	ByD	Promotion of electric transport
3	Jaime Parada	DEUMAN	General Manager
4	Claudia Espinoza	DGEE	
5	Claudia Espinoza	DGEE-MINEM	Energy Efficiency Coordinator
6	Fanny Enciso	DGEE-MINEM	MRV and GHG Specialist
7	Javier Campos	DGEE-MINEM	National Project Director and Director General of the DGEE
8	Cristobal Munguia	DGE-MINEM	Specialist in renewable energies
9	Nestor Vargas	DGER-MINEM	Advisor ER Photovoltaic Panels
10	Alex Ascon	ENEL	Electric Transport Specialist
11	Evelyn Teran	Engie	Specialist in electric transport
12	Freddy Garro	Former MINAM counterpart	Climate Change Specialist
13	Ana Lucia Pinto Valdivia	Peruvian Federation of Municipal Savings and Credit Banks.	Financing options for sustainable energy-related technologies and businesses
14	Wily Butron Arcaya	FONCODES	Clean cooking specialist
15	Victor Cordero	GIZ	clean cooking specialist
16	Luis Calzado	Global Sustainable Electricity Partnership (GSEP)	Specialist in electric transport and sustainable energy
17	Carlo Brancucci	U.S. National Renewable Energy Laboratory	International technical cooperation NREL, consultant in charge of developing a model of integration of RER in the national matrix
18	Dr. Rosa Luisa Ebentreich	Min. of Health	Former National Director of the Project and General Director of the DGEE, Former Director of Environmental Affairs at MINEM and Produce.
19	Alicia Serafina Chang Wong	MINAM	GEF Focal Point, Office of Cooperation and International Affairs, Project Monitoring and Evaluation Coordinator
20	Carrasco Chacon Jesus Walter	MINEM	National Project Director and the DGEE
21	Severo Buenalaya Cangalaya	Osinergmin	Promotion of non-conventional RERs
22	Ludmilla Diniz	UNDP-Panama	RTA
23	Guisselle Castle	Climate and Clean Air Program in Latin American Cities	Calac + Peru Coordinator
24	Alfonso Cordova	project	MRV Specialist
25	Daniella Rough	project	Project Coordinator
26	Lorena Meza	project	Specialist in gender and energy
27	Yudith Arzapalo	project	Project Manager
28	Jorge Soria	PUCP	researcher with Group - PUCP
29	Jorge Alvarez	UNDP	Program Officer, Office of Environment & Energy
30	Maria Cebrian	UNDP	Head of M&E, Environment and Energy

Agenda

Reunión de Inicio NAMAS Perú	lunes, 15 de feb.	11:00 – 11:30
INFORME INICIACION EF NAMAS ENERGIA https://undp.zoom.us/j/81413193080	martes, 2 de mar.	12:30 – 13:30
ENTREVISTA JORGE ALVAREZ TE NAMAS ENERGIA https://undp.zoom.us/j/84717748853	jueves, 4 de mar.	16:00 – 19:00
Tema: Entrevistas con el equipo NAMAs	lunes, 8 de mar.	12:00 – 12:30
Tema: Entrevista con especialista de cambio climático Freddy Garro		17:00 – 18:30
Tema: Entrevista con Coordinadora de Eficiencia Energetica (DGEE-MINEM) - Claudia Espinoza		18:30 – 19:30
Tema: Entrevista con el Director Nacional del Proyecto y la DGEE		20:00 – 21:30
Yudith Arzapalo, administradora del Proyecto	martes, 9 de mar.	10:30 – 12:00
Tema: Entrevista con Guisselle Castillo Coordinadora CALAC + Perú - Programa Clima y Aire Limpio en Ciudades de América Latina y Swisscontact		17:00 – 18:30
ENREVISTA RTA https://undp.zoom.us/j/88266144106		18:30 – 20:30

Reunión con Fanny Enviso - especialista de MRV de la DGEE https://us02web.zoom.us/j/83656478021	miércoles, 10 de mar.	12:00 – 13:00
Entrevista con Jose Luis Torres de la Piedra gerente de desarrollo de negocios de BYD. La entrevista con el Sr Jose Luis Torres de la Piedra de BYD, un representante del sector privada involucrado en la promoción del transporte eléctrico https://us02web.zoom.us/j/84413588155		16:00 – 17:30
Entrevista con Wily Butron Arcaya - Foncodes https://us02web.zoom.us/j/85431054127		17:00 – 18:00
Entrevista con Luis Calzado - GSEP https://us02web.zoom.us/j/81966486143	jueves, 11 de mar.	11:00 – 12:00
Entrevista con Jorge Soria investigador de grupo PUCP https://us02web.zoom.us/j/88326042247		12:00 – 13:00
Reunión con María Cebrián de PNUD https://us02web.zoom.us/j/84589736787		13:00 – 14:00
Reunión con Victor Cordero - especialista de cocción limpia de GIZ https://us02web.zoom.us/j/89632923361		14:00 – 15:00
Entrevista con Evelyn Teran de Engie https://us02web.zoom.us/j/82753990684		16:00 – 17:00
Entrevista NAMA - Evelyn Terán Reunión de Microsoft Teams		16:20 – 16:50
Entrevista con Lorena Meza - especialista en genero y energia para el Proyecto https://us02web.zoom.us/j/84660577501		17:00 – 18:00
Canceled: EVALUACION FINAL NAMAS ENERGIA https://undp.zoom.us/j/83448996839		17:00 – 19:00
Reunión con Jesús Valverde de Cofide https://us02web.zoom.us/j/87181467881		19:00 – 20:00
Entrevista con Rosa Luisa Ebentreich - ex Directora del Proyecto y DGEE https://us02web.zoom.us/j/88247030053	viernes, 12 de mar.	10:00 – 11:00

Entrevista con Javier Campos el abogado de la DGEE. Conoció el Proyecto desde su inicio y también tuvo el rol de Director Nacional del Proyecto. https://us02web.zoom.us/j/82251124204		12:00 – 13:00
Entrevista con Alex de Enel - especialista en transporte eléctrico https://us02web.zoom.us/j/87883878056		13:30 – 14:30
Entrevista con Carlo Brancucci - NREL y consultor https://us02web.zoom.us/j/87957251651		15:00 – 16:00
Entrevista con Cristóbal Munguia - DGE https://us02web.zoom.us/j/82466569357		16:00 – 17:00
Entrevista con Jaime Parada - Gerente General de Deuman https://us02web.zoom.us/j/82717640206		17:00 – 18:00
Entrevista con Néstor Vargas DGER https://us02web.zoom.us/j/84428703020		18:00 – 19:00
Reunión con Alfonso Córdova - especialista de MRV del Proyecto https://us02web.zoom.us/j/84433393285		19:00 – 20:00
Entrevista con Severo Buenalaya Cangalaya - Osinergmin https://us02web.zoom.us/j/87499090994	jueves, 18 de mar.	10:30 – 11:30
Presentacion preliminar de resultados de la evaluacion final del Proyecto https://us02web.zoom.us/j/82652704468	jueves, 8 de abr.	17:00 – 18:00
Presentación Peru	viernes, 9 de abr.	16:00 – 18:00

Tentative Agenda

Date	*Stakeholder*	*Duration*	*Topics to be covered*
	UNDP Resident Representative Meeting (if applicable)	0.5 hr	*Explanation of the evaluation process and its agenda, what it intends to do, specific* issues *that UNDP would like to highlight.*
Day 1: Morning	Executing team, UNDP, DNP, other actors that are believed important to participate.	1 hr	Opening meeting. Discussion of the main points to be covered in the evaluation, agenda adjustments, methodology, expectations, etc.
	UNDP: industry and M&E specialist	1-1,5 hr	UNDP's role in the project; supports provided, challenges, pending actions to ensure sustainability of results.
	UNDP: financial and administrative specialist	1hr	Procedimientos of tenders studies, expenses, main situations of the project. M&E system.
	UNDP Panama RTA	1 hr	Role of the RTA in the project; supports provided, expectations about the evaluation, main situations of the project. M&E system.
Day 1: afternoon	Project executing team	All afternoon	Detailed presentation by the project team on: Internal institutional organization and main units of min. Energía y Minas cooperating with the project. inter-agency coordination level, each result and product; relevant situations presented in the execution; monitoring and evaluation system implemented. adaptive management and corrective measures implemented; Mid-term evaluation and changes to the logical framework. procurement process, execution of expenditure co-financing status; projections for the sustainability of results obtained to date; mainstreaming (gender, indigenous peoples), analysis of project indicators and level of progress for their achievement, Analysis of the Logical Framework and ToC Theogres obtained to date. Pending actions to ensure sustainability of results.
Day 2	Project executing team	All day	Continuation previous day and conclusions
Day 3 Tomorrow: Interviews key actors public institutions	Punto Focal GEF	1 hr	Informative meeting on the objective of the evaluation and activities to be carried out. Role of the focal point in the project; support provided, expectations of the evaluation, main situations of the project. M&E system. Alignment of the project with Paris agreement goals and government goals on NAMAS issues and determined national actions; complementarity with other national and regional GEF initiatives; current project implementation situation, adjustments needed for the second half and sustainability prospects
	National Project Director	1 hr	Explanation of the process of evaluation and discussion of issues that the director wishes to relieve. Complementarity and alignment of the project with other ministry initiatives, national and regional policies; Challenges on regulations and other instruments for project achievements and compliance with mitigation targets; Current situation of implementation of the project and prospects for sustainability;

Date	Stakeholder	Duration	Topics to be covered
			Coordination of the project with ministry bodies and other institutional actors to promote regulatory changes and involve other national and departmental authorities. Rol of the steering committee in the direction of the project;
	Former National Project Director	1 hr	Knowledge of the project; areas of cooperation between this program and the project; main challenges encountered; alignment of the project with national mitigation priorities; sustainability of the project.
Day 3 Afternoon: Interviews key actors public institutions	Another high-level official from MINAM and MINEM (if necessary)	0.5 hr	Briefing on the objective of the evaluation and activities to be carried out during the mission.
	MEF	1.5 hr	Knowledge of the project; Rol del CDP areas of cooperation between the institution and the project; main challenges encountered; alignment of the project with the priorities of the management, specifically in the implementation of financial mechanisms for non-conventional renewable energies, budgets for implementation of NAMAS and MRV; sustainability of the project; Another type of cooperation needed from the project
	Undermine: climate change direction	1. 5 hr	(i)Knowledge of the project; (ii)areas of cooperation between management and the project; (iii)main challenges encountered; (iv)alignment of the project with management priorities, specifically in MRV and mitigation targets; (v)sustainability of the project; (vi)prospects for the implementation of new standards for non-conventional renewable energy, (vii)Other cooperation needed from the project (viii)Cooperation with other institutions and actors
	MINEM: Legal Department	1. 5 hr	(i)Knowledge of the project; (ii)areas of cooperation between management and the project; (iii)type of support for the project and main challenges encountered; (iv)alignment of the project with management priorities, specifically on NAMAS regulatory issues, non-conventional renewable energy and climate change. (v)sustainability of project actions; vi)perspectives for the implementation of regulations to encourage e-mobility and other non-conventional renewable energies. (vii)Other cooperation needed from the project Cooperation with other institutions and actors.
	MINAM: Legal Department	1.5 hr	(i)Knowledge of the project; (ii)areas of cooperation between management and the project; (iii)type of support for the project and main challenges encountered; (iv)alignment of the project with management priorities, specifically on NAMAS regulatory issues, non-conventional renewable energy and climate change. (v)sustainability of project actions; vi)perspectives for the implementation of regulations to encourage e-mobility and other non-conventional renewable energies. (vii)Other cooperation needed from the project (i)Cooperation with other institutions and actors.

Date	*Stakeholder*	*Duration*	*Topics to be covered*
Day 4: Tomorrow Interviews key actors public and private institutions	Produce	1.5 hr	(i)Knowledge of the project; (ii)areas of cooperation between management and the project; (iii)type of support for the project and main challenges encountered; (iv)alignment of the project with management priorities, specifically on NAMAS regulatory issues, non-conventional renewable energy and climate change. (v)sustainability of project actions; vi)perspectives for the implementation of regulations to encourage e-mobility and other non-conventional renewable energies. Another type of cooperation needed from the project Cooperation with other institutions and actors.
Day 4: Afternoon Interviews key actors public and private institutions	Osigermin	1. 5 hr	Brief overview of the functions of the management Knowledge of the project and its relationship with it; activities in conjunction with the project; New regulations for the sector that promote non-conventional renewable energies and main actors involved. Challenges for new regulations.
	Electricity sector: Sociedad Nacional de Energía y Petróleo	1 hr	Brief overview of the functions of the institution Knowledge of the project and its relationship with it; activities in conjunction with the project; New regulations for the electricity sector in non-conventional renewable energies and their challenges.
	FISE: Off-grid Renewable Energy	1.5 hr	Brief overview of the functions of the entity Knowledge of the project and its relationship with it; activities in conjunction with the project; M&E NAMA 1: figures and geographical coverage, sustainability.
	Peruvian Federation of Municipal Savings and Credit Banks (FEPCMAC)	1 hr	Brief overview of the functions of the entity, Knowledge of the project and its relationship with it; activities in conjunction with the project; Financing mechanisms for non-conventional renewable energies and future implementation prospects.
Day 5: Tomorrow	CEPLAN: application of MRV	1.5 hr	(i)relationship to the project; (ii)activities in conjunction with the project; (iii)lessons learned on the appropriation and application of the new knowledge generated by the project. (v)capacities of national, regional and local authorities to implement MRVs (vi)Type of strengthening required. Sustainability of project actions
	Any relevant university or research entity that has participated in the generation of knowledge of the project?	1.5 hrs	
	COFIDE, 1st	1.5 hrs	Brief overview of the functions of the entity, Knowledge of the project and its relationship with it; activities in conjunction with the project; Financing mechanisms for non-conventional renewable energies and future implementation prospects.
Day 5: Afternoon	Any experience with public and private sector energy end users? (trade, industry.)	1. 5 hr	Knowledge of the project and its relationship with it; activities in conjunction with the project; plans and programmes that are coordinated with the project; lessons learned on project-driven coordination; outstanding issues, sustainability, adaptation of current instruments to implement NAMAS and mitigation actions in the country.
	Experience with electric buses	1. 5 hrs	
Day 6: morning	e-woman (it would be good if they were representatives of an organization)	1.5 hr	(i)Knowledge of the project and its relationship to it; (ii)activities in conjunction with the project;

Date	*Stakeholder*	*Duration*	*Topics to be covered*
	Any other organization of direct beneficiaries of the project?	1.5 hr	(iii)outstanding issues, sustainability, adaptation of existing instruments to introduce greater participation of women and communities in non-conventional renewable energies.
Day 6: afternoon	Additional interviews if necessary	1. 5 hr	
		1.5 hr	
		1. 5 hr	
Day 7: morning	Preparation of findings (evaluator's work)	1.5 hr	
		1.5 hr	
		1.5 hr	
Dia 7: Herde	Closing meeting and discussion of preliminary findings	All afternoon	

Annex 6: Evaluation trail (Rounds 1,2 and 3)

Comments 1st Round: 142 Date: May 4, 2021

#	Page	Heading	Comment scope	Comment text	Institution	Action taken by Evaluator
1	7	[H4] Design (Prodoc)	design	Here we must differentiate between the design of the Project according to The Prodoc (2011-2014) or design of the Project since its inception in 2016 when the Prodoc was already defined and the Project team could only work within the structure, scope, indicators and results already defined.	author	The entire subsection on design refers to the prodoc, the changes introduced to this design are explained in the adaptive management section of the project. It will be referred to as a project document
2	8	[H4] execution	Actors	Do you mean the sectors at the government level?	author	It refers to the fact that the CDP had few institutions relevant to the project, as was the ERM
3	8	[H4] execution	It is worth mentioning that at the time of the final evaluation there were still contracts in execution, which had been affected by the pandemic. In addition, an exit strategy for the project was being discussed to support the achievements of the project, such as the implementation of the MRV in MINEM and its replication potential, the creation of the women's technical school (e-woman) and the elaboration of the technical regulation for charging stations for electric mobility.	Despite all this, the Project has complied 100% with the results and indicators of Prodoc, the Work Plan, and as of April 19, has completed the contracted services, with a remaining amount of $111k.	author	Updated the balance amount in the respective tables.
4	8	[H4] Financial Management	At the time of the final evaluation, a resource balance of approximately USD 784 111 thousand was found as of February 19, 2021, and it is estimated that at the time of closing in April, this balance will be approximately USD 300 thousand	You must upgrade until April 19	author	Updated all figures in all sections

#	Page	Heading	Comment scope	Comment text	Institution	Action taken by Evaluator
5	8	[H4] Financial Management	the information was not available, so it is not possible to conclude whether or not the commitments were met	All entities have fulfilled their co-financing contribution, which is updated in the financing table	author	Evidence of co-financing by the project was provided, so all figures were updated
6	9	[H4] M&E System	n instead of 24 months	You should note that in the first two years we were with the understanding that the project was 5 years old, not 4, because this is what he said in the prodoc with end date of July 22, 2020, and this was later clarified by GEF/UNDP that it was an error in the prodoc. So according to this 5-year schedule, the MTF wasn't that late.	author	Indeed, that is one of the biggest misunderstandings to be found in this draft. The signed prodoc prresuposed states 5 years, while the endorsement letter to the CEO sets 4 years. What should prevail?. A text with this situation will be incorporated into the design part of the executive summary.
7	9	[H4] M&E System	alternate tools	Specify that it refers to monitoring tools.	author	It's dichio in the paragraph with an example.
8	9	[H4] M&E System	UNDP could have made use of other alternative tools such as follow-up visits to the project	This they did, there was quite a bit of communication with UNDP throughout the Project	author	It is not documented, it is known that there was communication but not much more
9	9	[H4] M&E System	UNDP could have made use of other alternative tools such as follow-up visits to the project	THE UNDP had an important role, managing and disseminating at the high level the scope of the project and how it could support the state policy, the same one that facilitated a rapid action of the project in the other technical instances of the state.	author	That is very well and has been said in the report. The issue is that there were major problems such as defining the duration of the project, or advancing the MTR since a high risk had been detected in the project.
10	9	[H4] M&E System	advance the MTR	This was not possible for lack of bidders had to extend the call several times	author	The information was incorporated
11	9	[H4] M&E System	However, the risks associated with the country's institutional political situation were underestimated by both the project and UNDP, which despite the fact that in 2017 the risk had already been classified as "substantial", the MTR was done late between the 38th and 41th months of execution instead of the 24 months. To this should be added that UNDP could have made use of other alternative tools such as follow-up visits to the project or advance the MTR to analyze the causes of the problems and have proposed measures to solve them.	How would the political and institutional risk have been mitigated by these follow-up visits by the UNDP, for example the vacancy of two presidents?	author	The purpose of the paragraph is to indicate that the risks were underestimated and that no other available monitoring tools were used, with the aim of identifying adaptation strategies that the project could have had an impact on.

#	Page	Heading	Comment scope	Comment text	Institution	Action taken by Evaluator
12	9	[H4] Achieving Results	.	This paragraph is fine, but it is not reflected in the other sections later in the document. It is suggested to homogenize the intonation in the other sections.	author	The content will be reviewed
13	10	[H4] Financial management	managing to obtain additional resources that are not yet fully informed	Which ones are you referring to here? Can we clarify this?	author	It is deleted. It is known that studies paid for by the IDB and others were made but there are no amounts
14	11	[H4] Relevance, ownership and sustainability	The appropriation of the results of the project by the relevant actors has been partial, with some institutions such as MINEM and MINAM having assumed the methodologies for inventories and NAMA, as well as the continuity of the MRV	Why? support. In addition, ceste pruecto was the first in the history of UNDP Peru to get the MEF to be in a project and on the other hand, the Deputy Representative of UNDP and the Environment Officer had numerous meetings with the Ministers ON DUTY during the project.	author	It has been mixed, in the sense that some measures have been adopted, but others have not. In addition, the fact of having many meetings with the actors does not imply that they have adopted suggestions or practices, as is the case of approval of laws, regulations, etc.
15	11	[H4] Relevance, ownership and sustainability	having little chance	If enacted? require.	author	It was specified
16	11	[H2] Table N X: Assessment rating table	Assessment rating table The project ratings are shown in the following table.	You need to evaluate how you apply these ratings, I find it very focused on issues beyond the control of the project and UNDP. In addition, it seems to me that the rating should be focused on compliance with the prodoc, because this has always served as the guide and indicators of monitoring. In this sense, it seems to me that the ratings are very low, because the project met the 100% prodoc, only there are areas for improvement or lessons learned that can be included as recommendations for future projects.	author	The qualification of the project is for its entire life and is in accordance with the UNDP guidelines. The ratings between what was accomplished and what was achieved are based on the prodoc, but it should also be noted that the prodoc had serious deficiencies, starting with the duration and budget. It should also be noted that the prodoc had many ambiguities and its ambition in the results was also questioned in the MTR. Finally, the differences in duration and gasot estimates that exist between the Prodoc signed by the GdP and that authorized by the CEO is clearly an additional design flaw.
17	11	[H2] Table N X: Assessment rating table	qualification	Overall, it seems to me that these ratings are very harsh and you should reserve the moderately satisfying and below for cases where it hasn't really been met as it should be.	author	This request will be considered, reviewing again the facts that have been collected in this evaluation
18	11	[H2]	unsatisfactory	The design of the prodoc was developed in the context of 2011-2014, where they have worked with	author	See previous

#	Page	Heading	Comment scope	Comment text	Institution	Action taken by Evaluator
		Table N X: Assessment rating table		all the info available at the time. I don't see that it has been unsatisfactory, only that it was developed with limited information. It may be that a recommendation may be that in future prodocs should have more concrete indicators, but this should not come out as a bad rating of the Project, they are different things.		
19	11	[H2] Table N X: Assessment rating table	Moderately Unsatisfactory	A little strong this rating for UNDP in a context where the project had a satisfactory results score	author	See previous
20	11	[H2] Table N X: Assessment rating table	Moderately Unsatisfactory	This we must discuss with UNDP, I think the rating is strong	author	See previous
21	12	[H2] Recommendations	Extend between 3-6 months the project, so that the ongoing consultancies can be properly completed and the project exit strategy and its formal closure can be elaborated.	This does not apply according to gef rules	author	Well, we are in an exceptional situation, it is not common to have a year of difference between the prodoc and the CEO's letter, nor the pandemic or the crisis of the country. It is a recommendation of the evaluator, the actors see if it is appropriate or not.
22	12	[H2] Recommendations	pending such as the following:	Finish writing...	author	What happens is that the recommendation is A.2 and the following are a subset related to it (A.2.1, etc.) It will be fixed
23	12	[H2] Recommendations	of the system	Which system?	author	It refers to the MINEM and those involved in the issue of rural electrification. Clarification was included.
24	12	[H2] Recommendations	Put	Who is MIS?	author	Sorry, it's the MIDIS. Clarification included
25	12	[H2] Recommendations	Perform a final project close event	We are not allowed to develop events, so we chose to develop a national publication as a closing of the project in the networks and print media	author	It refers to an online event. The important thing here is the participation of the actors, it's not just a publication. Clarification included
26	13	[H2]	Although the GEF does not require each project to have an M&E specialist, this	I think this is as a recommendation, but it should not be part of a low rating because it is not part of the	author	The recommendation goes too. This is also part of the adpatativo management, some

#	Page	Heading	Comment scope	Comment text	Institution	Action taken by Evaluator
		Main lessons learned	should be a relevant option in conceptually complex and multi-stakeholder projects, as there would be more possibilities to analyse the relevant actors and their risks, as well as to refine and create specific measurement instruments to collect information and define appropriate indicators.	prodoc and we thought that this role was fulfilled by all three people: project coordinator, project manager and UNDP specialist. In addition with all the quarterly, annual, PIR, GEF, MINEM, POI reports, there was quite a bit of M&E. But it could be a recommendation to include this role within future prodocs.		projects do it and others do not, the most complex s include it as an initiative of the executing units. Just as projects make reallocations of budgets and include products that are not contemplated in the prodocs, the option of a specialist in M&E is also included, what happens is that in general - this item is not considered important by the executing units of projects.
27	13	[H2] Main lessons learned	Although the GEF does not require each project to have an M&E specialist, this should be a relevant option in conceptually complex and multi-stakeholder projects, as there would be more possibilities to analyse the relevant actors and their risks, as well as to refine and create specific measurement instruments to collect information and define appropriate indicators.	The project through the coordinator and administrator came to specify the indicators that seemed general or outdated at the beginning of its implementation, also during the execution time the compliance with all the indicators was monitored, which is why the need for a specialist dedicated to the monitoring and compliance of the indicators was not seen. , and therefore the point consider a specialist should be considered as a valuable recommendation for other projects	author	That is highlighted in the report as a good action, but there was still more to be done on this issue.
28	15	[H2] 1.1. Purpose and scope of the evaluation	and may 7, 2021.	7 May? Can the project closure date be passed?	author	Well, that had been agreed in the schedule. It will get 29/4
29	17	[H2] 1.2 Methodology used	Moderately unsatisfactory (MI), Unsatisfactory (I), Highly unsatisfactory (AI)	These three levels of qualification should be reserved for cases of serious non-compliance with guidelines, standards, prodocs or rules, not for cases where there are areas for improvement.	author	It's that they don't refer to breaches, they refer to whether they're within expectations or had failures or deficiencies. Not met or not met
30	18	[H3] Methods and procedures for collecting and analyzing information	x	Please refer to the Matrix of Evaluation Criteria (questions applied). Indicate what the respective Annex is.	author	Reference included
31	22	[H2] 2.1.	would end on October 15, 2019	The prodoc said July 22, 2020, a date we were using for planning for the first half of the project until they corrected it.	author	A text is included referring to this.

#	Page	Heading	Comment scope	Comment text	Institution	Action taken by Evaluator
		Start and duration of the project				
32	22	[H2] 2.1. Start and duration of the project	place of the 4 years stipulated in the Prodocprodoc	See comments above about the date in the prodoc	author	See previous
33	22		Recognized	By whom, specify and complete the wording.	author	Clarified
34	22		development plan	What development plan? Was it officially published by MINAM? require. Mention rule.	author	The paragraph is clarified
35	30	[H3] 3.1.1. Analysis of the logical framework and the Results Framework	No.	Check numbering.	author	arranged
36	33	[H3] 3.1.3. Assumptions and risks	a high impact for the project	Specify in terms of what? Did this affect the design of products or activities, for example? Explain a little more what it impacts.	author	Reference included
37	34	[H3] 3.1.6. Gender and Human Rights Approach	The prodoc includes an exclusive section for the gender approach. However, this section is declarative on the importance of the role of women, but does not mention how the project would affect their living conditions, and does not define strategies or indicators of the project to measure progress in this regard, establishing that these could be included in the MRV system. Prodocprodoc also does not include an analysis of the situation of women within the 3 subsectors chosen for the project, so there is no baseline and no strategy is defined within its logical framework, nor was the gender marker	Based on feedback from UNDP/GEF during the Project's induction workshop, the Project contracted several services that included the gender component both in the diagnostic and design stage of the NAMAs, although it has not been explicitly requested in the prodoc. In addition, a specialist in gender and energy was hired and remained until the end of the Project. I believe that the evaluation should not be focused on what was not in the prodoc, only what the project did about gender and compliance with the prodoc, which should be the main criterion and indicator for this final evaluation.	author	This section refers to how the gender issue was conceived in the prodoc and does not attempt to make an analysis of what was added to it afterwards, as this is discussed in section 3.3.9 on project implementation. The report goes through stages of the project, first design (prodoc), then execution (adaptation, changes made, M&E, etc.), so it does not focus on what was not in the prodoc. The design is not being mixed or confused with the implementation of the project, moreover, these stages are clearly separated. More details will be included in the co-sponsoring section.

#	Page	Heading	Comment scope	Comment text	Institution	Action taken by Evaluator
			used. According to the interviews conducted and the documents reviewed, a specialist or a gender study would not have been included for the project development stage, which could be the reason for the declaration of the corresponding section.	It seems to me that you are mixing the evaluation of the prodoc design with the evaluation of the implementation of the project in compliance with the prodoc, which are different things and should be evaluated as well.		
38	34	[H3] 3.1.7. Repeating approachreplicability	since the Peruvian State has invested and will continue to invest in nama.	I think this should also focus more on the prodoc indicators, because the Project did more than the prodoc asks for but it can't give sustainability to everything, nor was it part of the prodoc indicators.	author	See previous
39	36	[H3] 3.1.10. Administrative Provisions	the CDP is chaired by an entity that is not the executor of the project, a situation that is rare in these GEF projects	The CDP is defined in the prodoc and could not be changed by the Project. Worse because it says it is chaired by an entity that is not the executor of the Project? it wasn't.	author	Prodoc indicates that the CDP would be chaired by MINAM, not MINEM, so the comment reflects the strangeness that it was designed this way, but it will be changed in the text.
40	36	[H3] 3.1.10. Administrative Provisions	the CDP is chaired by an entity that is not the executor of the project, a situation that is rare in these GEF projects, since the weight and responsibility for execution and budgetary management falls on the MINEM.	Review there must be an error, who presides is MINEM.	author	See previous
41	36	[H3] 3.1.10. Administrative Provisions	It should be mentioned that, unlike other projects of this type, the constitution of a technical Committee to advise the CDP in its decisions is not contemplated, nor are there any working groups that could include a greater number of	I suggest that the evaluation of the Project be focused on compliance with the Prodoc that was approved by GEF, UNDP and the government of Peru. These types of comments should be more like recommendations for future projects to improve their impact and sustainability, but not as weakness of the Project resulting in poor rating when it really wasn't possible to change the prodoc at any time since the start of its implementation in April 2016.	author	If it were for sticking to the prodoc, the project should have lasted 5 years and not 4 for example. The issue is that there are instances in this project that differ from the normal, as is the case of governance, where these committees deliver inputs that may be independent of those of the executing team. This sort of thing falls into what's called adaptive management.
42	37	[H3] 3.1.12.	and with the information provided to the evaluator, it is not observed that it was applied during the preparation of	Just consider that the PIR have a section where they do require projects to report to do an exercise of identification and reporting of social and	author	But the SESP is something else independent of the PIR. The discussion of risks of the PIR is in adaptive management.

#	Page	Heading	Comment scope	Comment text	Institution	Action taken by Evaluator
		Environmental and Social Safeguards	the project because the EES policy began to be applied in 2015	environmental risks. Perhaps it can be mentioned in this text.		
43	37	[H3] 3.1.12. Environmental and Social Safeguards	where the main focus	About what? Clarify the wording.	author	It was made only for the e-woman project. The scope was specified
44	38	[H3] 3.2.1. Adaptation management	.	And how did the project adapt to the pandemic?	author	Added a paragraph
45	38	[H3] 3.2.1. Adaptation management	(38 to 41 months after the formal start of the project in Oct. 2015), perhaps belatedly considering that in the PIR 2017 (covers implementation period Oct. 2015 - June 2017	It is not so late when you consider that the project was working with the understanding on this date that the project culminated on July 22, 2020, not in 2019	author	Added clarification
46	39	[H3] 3.2.1. Adaptation management	"moderately satisfactory,"	I also include moderately unsatisfactory, should review and correct if it should be different	author	This paragraph refers to what the MTR found, not to the present assessment. Clarification was made
47	39	[H3] 3.2.1. Adaptation management	mainly due to the generality of the indicators and the bulk of the prodocprodoc goals	This is not the fault of the Project, the design of the prodoc should be evaluated separately considering that the Project could not change it after starting	author	See previous
48	39	[H3] 3.2.1. Adaptation management	therefore, these parameters should be specified with a view to the final evaluation.	But on the other hand, it is said that: The implementation of the project required the introduction of several changes to specify the scope, define the NAMAs, include new indicators and restructure some activities specified in the prodoc (see section 3.2.1). That wasn't enough I understand.	author	
49	39	[H3] 3.2.1. Adaptation management	is indicated	Who indicates, the mid-term evaluation?	author	It's the MTR, clarification is included to this.
50	39	[H3]	No. 7	Check numbering.	author	corrected

#	Page	Heading	Comment scope	Comment text	Institution	Action taken by Evaluator
		3.2.1. Adaptation management				
51	39	[H3] 3.2.1. Adaptation management	7:	ditto.	author	See previous
52	39	[H3] 3.2.1. Adaptation management	partial	It's not clear because it's biased	author	The explanation is in the project response column.
53	39	[H3] 3.2.1. Adaptation management	AND THE	What is PA? This we have done continuously with Images until the end of the Project, must meet	author	The issue is that the MTR explains that we must have a more consistent relationship with the actors, whether they are government, citizen and private. The answer of the project is to make publications with an advertising agency, so it would continue to do the same. However, the MTR's recommendation regarding "communication" did not refer to that. Corrects itself to "Parcia"l
54	40	[H3] 3.2.1. Adaptation management	However, there is no answer about designing and implementing a high-level strategy to overcome existing barriers.	The diagnosis stage and detailed design of the project included high-level strategies to remove existing barriers, considered as institutional arrangements.	author	That is fine, but the MTR's recommendations point to an overall strategy with stakeholders on the part of the project, not for each NAMA. In addition, there is no organized practice with the actors, in fact it has not been possible to determine which have been the working groups of the project, there is only a list of attendees to meetings and training.
55	41	[H3] 3.2.1. Adaptation management	more precise definition of performance statements and indicators	We did not have the possibility to change the indicators, which were defined in the prodoc	author	What happens is that there are procedures in the GEF to change the indicators, but it was chosen not to do so.
56	41	[H3] 3.2.1. Adaptation management	, it is very feasible that no high-level coordination effort or strategy	This statement goes hand in hand with the fact that UNDP could not have done much either, with high-level visits. So to describe UNDP's role as unsatisfactory, we believe, could be reconsidered.	author	When it was explained that the risks were undervalued in a previous paragraph, he was not referring to high-level visits that UNDP had made, but to use tools such as anticipating the MTR or conducting a follow-up visit, which is a

#	Page	Heading	Comment scope	Comment text	Institution	Action taken by Evaluator
						kind of pre-evaluation that is done when projects have difficulties at the beginning.
57	41	[H3] 3.2.1. Adaptation management	As a conclusion of this section, it can be said that the adaptive management of the project was "Satisfactory" considering the conditions of political crisis, changes in the patterns of energy production and consumption and the limitations on mobility resulting from the global pandemic.	Finally, the Project met 100% with all the indicators established in prodoc, which has served as the project's guide since its inception	author	The paragraph does not refer to whether or not the indicators were met, but rather to how the project was adapted to the context conditions and recommendations of the MTR.
58	42	[H3] 3.2.2. Partnership agreements (with relevant stakeholders involved in the country or region)	The execution of the project was focused on the actors of the government sector - such as the MEF, MINAM, MINEM and Produce as main allies who were constituted as members of the CDP together with UNDP, as can be seen in the scheme of actual execution of the project (see Fig. Nº3).	The first project in which we are pleased that the MEF participates in the entire history of UNDP.	author	Added a paragraph mentioning the participation of the MEF
59	42	[H3] 3.2.2. Partnership agreements (with relevant stakeholders involved in the country or region)	The CDP was chaired by MINAM, however, the national executor of the project was MINEM, so it would have been more logical for the latter entity to preside over this highest decision-making body.	Correct this statement, chair minem.	author	Fixed.
60	43	[H3] 3.2.2. Partnership agreements (with relevant stakeholders involved in the country or region)	It would have been desirable first of all for the project to have drawn up a map of public and private institutional actors and defined the level of interest,	If you count, this has been part of the diagnostic studies and detailed designs of the Namas	author	It does not refer to each of the NAMAs, it refers to the project, which was favored in the CDP. The working groups are not clear, there are only attendance lists of meetings and trainings, there is no consistent structure to manage the actors of the project.

#	Page	Heading	Comment scope	Comment text	Institution	Action taken by Evaluator
61	43	[H3] 3.2.2. Partnership agreements (with relevant stakeholders involved in the country or region)	with workshops for e-woman school workshops	Review wording.	author	Corrected paragraph
62	43	[H2] 3.2.3. Project M&E	Project M&E Input Design (*)	It should be clearer that this refers to the logical framework of the Project Prodoc.	author	This section does not refer to the logical framework, but to how the M&E system was defined in the prodoc and then how it was implemented.
63	44	[H3] Input Design (*)	Therefore, in the design aspects of the M&E system, it would have been desirable to have a professional specifically in charge of carrying out follow-up plans, identifying key information to measure progress towards results and implementing the means to collect and analyze it.	It was not contemplated in the PRODOC so we think it could go more appropriately to go in recommendations rather than as a Finding.	author	As explained above, this is also part of the project's adaptive process. The recommendation is also included.
64	44	[H3] Input Design (*)	Therefore, in the design aspects of the M&E system, it would have been desirable to have a professional specifically in charge of carrying out follow-up plans, identifying key information to measure progress towards results and implementing the means to collect and analyze it. In addition, it could identify new indicators or reformulate existing ones to get a more accurate picture of progress. However, all this task was based on the coordinator of the project, with a workload of consideration where whose essential concern is to see how the project will be implemented, meeting deadlines and goals not very well established.	Not having considered in a prodoc to said professional and despite this came to comply with the established indicators. I think this should be considered as a recommendation that in the future can serve in the design of other projects but not a rating point,	author	See previous

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65	44	[H3] Input Design (*)	Therefore, in the design aspects of the M&E system, it would have been desirable to have a professional specifically in charge of carrying out follow-up plans, identifying key information to measure progress towards results and implementing the means to collect and analyze it. In addition, it could identify new indicators or reformulate existing ones to get a more accurate picture of progress. However, all this task was based on the coordinator of the project, with a workload of consideration where whose essential concern is to see how the project will be implemented, meeting deadlines and goals not very well established. For the above reasons is that the input design for M&E of the project is rated as "Unsatisfactory".	Considering that this comes from the design of the prodoc that was made in 2014 when NAMAs were little known, and I still do not enter the Paris agreement, I think the indicators included in the Prodoc were reasonable. Also, a rating of Unsatisfactory seems bad for the Project, but the Project really had nothing to do with the prodoc design. I think this rating is a bit strong. Perhaps it will be better to clarify the context of the country and paris agreement and NAMAs, etc. When they have designed the project in the years 2011-2014. I could also mention that the goals need to be more concrete, that it can serve to put pressure on the Minem and the state to adopt concrete standards.	author	The issue here is that it rates the entire project cycle, not just its implementation. In any case, the coordination paragraph is more appropriate to put it in the implementation, so the qualification will be analyzed again The issue of context was already explained at the beginning of the report and in other previous sections.
66	44	[H3] Implementation of the M&E Plan (*)	of what has been done previously	where? By whom? It is not clear.	author	Fixed paragraph
67	44	[H3] Implementation of the M&E Plan (*)	such as updating each new director or minister and adapting to their priorities or strategies	Review wording, it is not very well understood.	author	See previous
68	44	[H3] Implementation of the M&E Plan (*)	Finally, it is worth mentioning that one measure that would have alleviated these M&E problems from the progress of the project would have been to hire an M&E specialist to make the necessary adjustments to the project's metrics - both at the level of objectives and results and at the level of outputs.	This is not considered in the prodoc, and the project has followed the reporting and evaluation according to the indicators in the prodoc, so it does not seem correct to say that it is moderately satisfactory. You must evaluate the project according to your compliance with the prodoc.	author	Well, that's been the problem, since the prodoc had glaring flaws. Having thought of an M&E specialist when the project was described as a "substantial risk" would have been an important adaptive measure to anticipate and mitigate risks and to collect accurate information for the indicators. As stated above, the complete project cycle is evaluated and, in this particular section, the

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						M&E system that was designed in the prodoc and the one that was implemented.
69	45		the project's own risk assessment has been late,	The assessment of the risk of the political crisis was very difficult to foresee as the impeachment of the presidents or the dissolution of congress.	author	But already in the PIR of 2017 it was seen that the risk was substantial, so it was already on top and there was not much change in the way the project or the UNDP proceeded.
70	45		Generally speaking, the supervision of the project has been constant, but the very assessment of the risks of the project has been late, as for example the MTR was carried out between Dec. 2018 and May 2019 - this is between 38 and 41 months after the signing of the Pprodoc, instead of being done at 24 months.	According to the completion date of July 22, 2020 in the prodoc which has suggested that the project should be approx 5 years old, so the MTR was realized almost after 2.5 years since the start of implementation of the project in April 2016	author	The start of the project is in Oct-2015, when the prodoc is signed.
71	46		did not properly weigh the associated risks	The main unweighted risk was the political one, and that was hard to weigh, nobody could know that two presidents are going to be dumped, or the pandemic, or the dissolution of congress for example.	author	Well, the wording was meodified, the paragraph was reworded that having the risks installed, it was underestimated and the appropriate measures were not taken. We agree that the political risks are beyond the scope of the project, but take some mitigating measures if they are.
72	46		and the opposition that the regulatory proposals were generating in some sectors, mainly from energy distribution companies	We don't clearly see the relationship between UNDP's role and the opposition of energy distribution companies to pull out certain regulations.	author	This is an issue shared between the project and UNDP, because it went ahead with proposals that had no basis in key actors such as electricity companies and did not think about an adaptation of what was being done, such as a change of strategy in the relationship and participation with the actors, for example.
73	46		"Moderately Unsatisfactory."	It seems quite strong this qualification to the Role of Oversight to the Implementing Agency, when the project was not so bad in fact.	author	The case will be re-analyzed
74	46		Although UNDP played a key role in promoting and supporting the project, it did not properly weigh the risks associated with its implementation and the opposition that the regulatory	I still don't think that the rating of "moderately unsatisfactory" will be sustained, so I see UNDP has fulfilled its responsibilities then because so low the rating?	author	See previous

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			proposals were generating in some sectors, mainly from energy distribution companies. For the reasons described above, it is considered a rating of "Moderately Unsatisfactory".			
75	46	[H2] 3.2.5. Quality of execution partner implementation (*)	Quality of execution partner implementation (*)	It remains briefly to mention the role of minem in terms of: Quality of risk management Appropriate use of funds, procurement processes and contracting (see page 48).	author	A new paragraph was added.
76	46	[H2] 3.2.6. Overall implementation /execution of the project (*),	business model design service for micro-entrepreneurs as the last stage of the pilot of the energy school for women on payment mechanisms for solar panels, proposal of labels for market study and power measurement of appliances, and the study of gender in energy. roadmap for the implementation of energy audits in the public sector, and the study of massification of electric transport.	Those that have culminated in April	author	What about the pay-for-performance mechanism?. It had been reported that the pilot to evaluate this mechanism was suspended due to pandemic. It will be maintained, but a paragraph will be added stating that the project reported that certain activities have already ended.
77	48	[H2] 3.2.7. Financing Financing and Co-financing of the project	149	You must upgrade	author	The table will be updated, but the project is asked to provide evidence of these expenditures by 2021.
78	48	[H2] 3.2.7. Financing Financing and Co-financing of the project	By component it can be seen that all have under-execution, being the results 2 and 4 the ones that present the most balances (28% and 49% respectively). The expenses associated with salaries of the executing unit (7 professionals) reach approximately 19.4% of the total expenses, a normal situation for a project of this size and complexity.	You must upgrade	author	See previous

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79	48	[H2] 3.2.7. Financing Financing and Co-financing of the project	Result 3 (implementation of the NAMAs) presents an execution of 96% and is by far the most important item of the project, representing about 66% of the total expenditure to date. The speed of disbursements compared to those stipulated in the prodoc can be seen in Fig. No. 4. It can be seen that the level of total spending was always below initial expectations, certainly due to the learning curve of the project and the situations of instability explained earlier in this report, yielding a balance for the project of USD 784,210. The executing unit of the project indicated that it had committed amounts worth close to USD 450 thousand, so the total amount remaining at the end of the project could be close to USD 300 thousand. Result 1 (inventories and BAU) was supposed to be completed in the third year, however, in that year the peak of expenses is reached, which continue to this day, yielding a balance of USD 48,461. For result 2 (MACC curves) there is an evolution more attached to what was planned in the prodoc, resulting in a balance of USD 167,168, while result 3 (Implementation of the NAMA), the peak of its execution was in 2019, resulting in a balance of almost USD 93 thousand. For result 4 (MRV Mechanism), the largest movements are observed in 2019 and 2020, also out of line with respect to what was originally planned and constitutes the result with the highest under-execution (49%), leaving an approximate remainder of USD 458	You must upgrade until April 19	author	See previous

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			thousand. Result 5 (project management) has been relatively constant but always under-executed, reaching an approximate balance of USD 44 thousand.			
80	49	[H2] 3.2.7. Financing Financing and Co-financing of the project	/ / / / / /	You must upgrade	author	See previous
81	50	[H2] 3.2.7. Financing Financing and Co-financing of the project	Table 12: Co-financing reported by CMS (in millions of USD)	earring	author	Added co-financing with the information provided by the project
82	50	[H2] 3.2.7. Financing Financing and Co-financing of the project	Table 12: Co-financing reported by CMS (in millions of USD)	They are 100% all, and in some cases have reported more than the amount committed	author	See previous
83	52	[H3] Achievement by objectives	there is no information on regional inventories or how many they are	This point was discussed and agreed at the beginning of the project with the steering committee and included in recommendations in the PIR that should clarify that the only inventories that are included in Infocarbono and reported to the minam are the sectoral and sub-sectoral inventories, which the Project fulfilled in developing for the year 2014 according to the prodoc , in addition to supporting the EGED to develop subsequent inventories until 2018 to help provide sustainability.	author	Paragraph changed

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				They include national inventories that include all regions. Where it says NAMAS-related regions, NAMAs are national and include all regions. So it meets 100%		
84	52	[H3] Achievement by objectives	NAMA #1: Not all desired systems were installed. However, this NAMA was expanded to include other options not considered in the prodoc, but there are no adequate indicators to measure its success.	You need to clarify this. The number of 500,000 photovoltaic systems was established with the original tender, which was corrected by DGER after completing the field survey where they have identified that there were not 500,000 homes without access to electricity, so the contract to install 200,000 photovoltaic systems was updated. It is not due to any intervention or lack of implementation by the project. Considering that they have installed more than 200,000 photovoltaic systems according to the contract, this should be considered 100%	author	
85	52	[H3] Achievement by objectives	however, there are no adequate indicators to measure its success.	There are the Prodoc indicators, which we have met 100%	author	The prodoc does not contain the EE NAMA, nor does it contain any indicator to measure its progress. A NAMA result from EE was then introduced, which is said to be an indicator, but there are no targets to verify what was desired. In any case, it is a very important NAMA.
86	53	[H3] Achievement by objectives	: It cannot be considered a NAMA in execution, since it is a demonstration activity whose objective is to estimate the viability of this technology, its business model, fleet performance and elaboration of proposals for regulations, which still need to be approved.	The NAMA is called the promotion of electric transportation which the Project did comply with several pilots and initiatives. Nowhere in the region have they reached the massification of electric transport, the most important contribution of the Project was to eliminate barriers, develop regulatory proposals that were finally published (by Minem and MEF) or are in the process of publishing, promoting technology, developing tools for the public to promote its use (mobile app), reaching a multi-institutional agreement to develop the pilot of the electric bus , help ATU obtain technical specifications to consider in the development of the electric bus pattern for the public transport sector,	author	The paragraph has been amended to the effect that it is not being implemented, but nevertheless, in many interviews it was clarified that although progress has been made, the barriers to electric transport were far from being broken down in the short term.

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				develop performance studies to establish emission and performance factor values for buses and taxis to consider in the calculations of GHG reductions, and establish its MRV system to be able to report its impact until 2030.		
87	53	[H3] Achievement by objectives	Unfortunately, as with the other NAMAs, there are no adequate indicators to measure their progress.	The NDC's level of ambition has increased in 2021 from 30% to 40%, and the main contribution to this increase was an increase in the RER target from 5% to 15%. The Project has helped with all the technical studies to be able to sustain this increase in goal to support the new ambition of 40%.	author	The goal of 40% by 2021 was in the letter of voluntary compormisos before the GEF. It is already known that the project has been a great contribution, but from the point of view of the proposed indicators and results, there is no way to know. The NCRE step from 5% to 10% is carried out without any intervention of the project, what it did was to systematize the information through a methodology that supports guarismo, which is extremely valuable. The discussion does not go by the indicators of the prodoc, which has already been seen to have major shortcomings, in addition to questioning the level of ambition of the project.
88	55	[H3] Achievements by Result (*)	It is worth mentioning that from the first quarter of 2020 the COVID-19 pandemic began in Peru, which delayed all field activities and affected trainings, workshops and face-to-face coordination with the actors, making most of these telematics.	This should be clearly mentioned in the Adpatative Management section.	author	It was mentioned there and in other sections, but added one more paragraph
89	55	[H3] Achievements by Result (*)	such as some MAC curves that are still in progress	All MAC Curves are long overdue for the 4 NAMAs, and are included in the two deliverables completed in July 2020.	author	Correction made
90	55	[H3] Achievements by Result (*)	the NAMA of electric transport that cannot yet be considered a NAMA itself	According to the indicators of Prodoc if it complies, as mentioned above: The NAMA is called promotion of electric transport which the Project did comply with several pilots and initiatives. Nowhere in the region have they reached the massification of electric transport, the most important contribution of the Project was to eliminate barriers, develop regulatory proposals that were finally published (by	author	Fixed

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				Minem and MEF) or are in the process of publishing, promoting technology, developing tools for the public to promote its use (mobile app), reaching a multi-institutional agreement to develop the pilot of the electric bus , help ATU obtain technical specifications to consider in the development of the electric bus pattern for the public transport sector, develop performance studies to establish emission and performance factor values for buses and taxis to consider in the calculations of GHG reductions, and establish its MRV system to be able to report its impact until 2030.		
91	55	[H3] Achievements by Result (*)	.	Verify this information with Danny	author	OK
92	55	[H3] Achievements by Result (*)	MINAM also has to approve the Ssistema Nsystem nacional de MRV	It is already approved in the sense that the MRV platform has been designed and based on the format sent by Minam and is currently serving as the basis for the new Project of support to the government of Peru in this regard to the NDC (GIZ-Minam)	author	That is fine, but minam's MRV system is still not working, it has not been sent to the convntion.
93	55	[H3] Achievements by Result (*)	rather, they are indicators of programme performance.	The wording is not clear.	author	Added text to clarify that budget programs do not have indications related to climate change.
94	55	[H3] Achievements by Result (*)	these MEF PPR programs indicate that they are indeed related to NAMAs, but do not include any type of indicator, but rather are indicators of program performance.	There are two PPR projects that it reports on the project's MRV platform: clean cooking and rural electrification with SFV. Also, there is a list of namas-related projects in your response on co-financing. In addition, it should consider MEF initiatives such as reducing the ISC from 10% to 0% for electric vehicles, adjusting to the depreciation of electric buses to improve its competition with gas buses, and the social carbon cost of $7.17/tCO2 that helps sustain projects that reduce GHGs.	author	The paragraph refers specifically to outcome 4, where it was desired to include climate change indicators in the PPRs. A sample of them was reviewed and there are only indicators of program performance, no climate change. It is not enough to say that there are climate change-related programmes in the PPRs, if there are no specific indicators for this issue.

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95	56	[H3] Achievements by Result (*)	Detailed qualification for each project outcome	Finish with the translation of column B	author	revised
96	56	[H3] Achievements by Result (*)	what were the main changes introduced to the inventory methodology of 2014	The project developed the procedure to develop the INGEI for the sector and sub-sectors because there was no document, only a general Excel and with errors. This has been delivered to Minam and approved for use in the development of the INGEI for the sector onwards (they have also used it to update the previous INGEI). This is included in the evidence annexed in the PIRs and is still being implemented.	author	It is fine, but the PIR do not report what the improvements are, that is the observation, for an external it is very difficult to know what the contribution of the project was in this. An additional paragraph was written for this.
97	56	[H3] Achievements by Result (*)	it is difficult for an external to identify the new contributions of the project in the methodological aspects.	Basically the Project established the INGEI and RAGEI process for the sector used to date, you should review this section	author	See previous
98	56	[H3] Achievements by Result (*)	So far, the only RAGEI and energy inventory published in MINAM are for the year 2014.	This is the only one included in the prodoc so it meets 100%. The RAGEI of 2016 or 2018 was not published because it was missing to receive the inventories for the other sectors, not for lack of delivering it for the energy sector, which the project has supported (although it was not formed as part of the prodoc as a commitment)	author	The paragraph was revised
99	56	[H3] Achievements by Result (*)	Considering that there is no definition of the year stipulated for this inventory, the one accepted by MINAM for the year 2014 is taken.	The year 2014 was the year stipulated in the prodoc, so it meets 100%. Those of 2015, 2016 and 2018 are help to the EGE as part of the training and sustainability of the Project	author	Okay, we are only trying to identify the slopes, which will have to be taken over by the insittution. Qualifying the AS, there is no observation for the project. The comments try to give context as well.
100	56	[H3] Achievements by Result (*)	regional inventories and their updating	This is not relevant because namas and their measures are national, nor are they reported by Minam at the regional level.	author	What the paragraph tries to say is that it is not pending the project. The comment is debatable, because there are regional NAMAs, the transport is only in Lima as it appears in the reports, and the photovoltaic panels are run in regions of high rurality, so regional inventories are important. In any case, the interviews showed that the regional inventories were of

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						great interest to local authorities, so they are relieved for the near future.
101	57	[H3] Achievements by Result (*)	Energy sector MAC curve reports and detailed sub sectoral mac curves for on and off grid RE approved by the Project Steering Committee.	Translate into Spanish	author	Made
102	57	[H3] Achievements by Result (*)	MS	This meets 100%	author	OK
103	57	[H3] Achievements by Result (*)	Until the time of the final evaluation, the report for the MACC had been delivered for 3 mitigation measures (EE labeling, VE promotion, rural electrification), leaving pending another 5 (EE in industrial sector, transformation lighting market, replacement street lighting lamps, clean cooking, NCRE combination).and the update tool.	It seems that the consultant only reviewed one of the deliverables (third), but in the second where the MAC curves were developed for the other measures. The MAC Curves study developed by the Project fulfilled the elaboration, analysis and development of the MACC of twenty (20) actions within eight (08) mitigation measures and four (04) NAMAs. According to Prodoc, 1 sectoral MAC curve and two more sub-sectoral curves are requested, then 100% and more has been met.	author	Comment included
104	59	[H3] Achievements by Result (*)	500K solar panels	This has also been clarified and corrected in the first PIR, the 500k were not realistic for not having this amount of families without access to electricity and was corrected by DGER in its contract to be 200,000 systems, then considering that they have already installed 200,000 according to the contract of the massive program, 100% is fulfilled.	author	The paragraph was corrected
105	60	[H3] Achievements by Result (*)	does not define that it is a NAMA in full deployment	It is not correct, the nama design clearly shows that the start of technology integration is very slow, and that it should not see significant increases until 2024 and beyond. Therefore, it complies with the design, inter-institutional agreement, implementation of the pilot, published regulations, and established MRV system, which is what it asks for in the prodoc.	author	We agree, but what the paragraph indicates is that the project and not the NAMA, does not specify what is meant by NAMA in full implementation. This is going to be clarified

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106	61	[H3] Achievements by Result (*)	but it has not yet been approved by the CDP or MINAM.	Elsewhere in the report it says that there is no information, homogenize.	author	Both paragraphs were fixed explaining that there is no evidence that the CDP and MINAM have approved MRV esrtos.
107	61	[H3] Achievements by Result (*)	Energy sector MRV registry in place	Translate into Spañól	author	arranged
108	61	[H3] Achievements by Result (*)	Climate Change related indicators incorporated in ministry of Finance's Results Based Budgeting Program	ditto.	author	See previous
109	61	[H3] Achievements by Result (*)	there are conversations with FONCODES forMIDIS already has a PPR to include clean cooking within the PPR and separates the Foncodes program, and there is also the PPR established for the massive rural electrification program with SFV.	The improved kitchens are already included in the PPR, only what is missing is the approved budget for the MRV within the Foncodes program, but they will request it in the budget for the next year based on the results of the MRV study of improved kitchens carried out by the Project. It also has PPR for photovoltaic systems	author	Corrections to the paragraph are included, but the situation remains that these budget programmes do not have climate change indicators
110	62	[H3] Achievements by Result (*)	x	Complete information from the Goal.	author	Completed
111	63	[H3] 3.3.2. Relevance (*)	with the result of the Country Program "Strengthened institutions for the design and implementation of strategies and/or development plans that are low in emissions and resistant to climate change".	Review the CPD in force until 2021.	author	Paragraph included for CPD 2017-2021.
112	63	[H3] 3.3.2. Relevance (*)	.	The qualification needs to be noted.	author	The qualification is included
113	64	[H3] Effectiveness (*)	EE	Which one are you referring to here? Energy Efficiency Audits in the Public Sector?	author	It was clarified by indicating that they are the NAMA of EE and the One of Transport, which are in process.

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114	64	[H3] Effectiveness (*)	that nama of solar panels did not reach the established goal	This has been corrected in the first PIR, it should not be 500k, but 200k as a goal that they have met according to the signed contract	author	Fixed paragraph
115	64	[H3] Effectiveness (*)	Although not all namas driven by the project are fully operational (EE and transport in process) and that the NAMA of solar panels did not reach the established goal, it should be noted that the NAMAs developed are of greater scope, complexity and detail than stipulated by Prodocprodoc	They are on track according to their designs and projections to 2030	author	Text was included to reflect this
116	64	[H3] Effectiveness (*)	is fully operational	If it is fully operational, it was only in transfer to the Minem website during the interview	author	According to what was observed, read and interviewed, the system is in an initial state of implementation and much more is needed to institutionalize it and make it 100% operational.
117	64	[H3] Effectiveness (*)	above all with regard to energy efficiency and rural electrification measures, which are part of the responsibilities of this institution.	They are already reported in the MRV platform, which is operational and operational and in full use by the DGEE technique	author	The text refers to the fact that more organic is needed to make it operational, it is not just a matter of entering data, it is necessary to organise responsibilities for the review of measures, for example.
118	64	[H3] Efficiency (	close was 19.4%	You must upgrade	author	up-to-date
119	64	[H3] Efficiency (*)	and less than those planned in the Pprodoc, prodoc,	As of April 19th there was only $111k left to upgrade, only they have delayed in their completion for all the reasons stated above	author	Updated
120	64	[H3] Efficiency (*)	.	What do you mean by that?	author	The text was deleted, it did not contribute to the discussion
121	65	[H3] Efficiency (*)	and the absence of an M&E professional, who could have contributed to greater monitoring, risk analysis and improved project metrics.	This we have always understood was the role of UNDP which they have fulfilled	author	Well, that's part of adaptive management and perception about the importance of M&E.

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122	66	[H3] 3.3.5. National ownership	National ownership	It should be mentioned that the country increased its level of NDC ambition from 30% to 40% in 2021, which has been based quite a bit on calculations about the potential of RERs and it will only be possible to reach this new ambition if RERs are increased to 15% by 2030, based on calculations made by the EDGE with support from the Project and its MRV Platform.	author	This comment is not accepted, because as has already been said previously, the voluntary compormiso of the country to have an energy matrix with 40% of RER was before the project, in 2011.
123	66	[H3] 3.3.5. National ownership	deployment process	About what? specify.	author	Of the draft, clarifying text was added.
124	66	[H3] 3.3.5. National ownership	Adoption	By which sector or sectors?	author	It refers to government agencies. Added text for clarification.
125	66	[H3] 3.3.5. National ownership	Net-Metering System (MINEM) implementation,	This is part of the distributed generation regulation, it is not separate	author	
126	66	[H3] 3.3.5. National ownership	and the promotion of electric and hybrid transport	This is already published, only need to publish the technical standards for charging infrastructure	author	
127	67	[H3] 3.3.7. Environmental and Social Standards	Environmental and Social Standards	I understand that this section fits more into the chapter of 3.2 EXECUTION OF THE PROJECT.	author	Moved to section 3.2
128	67	[H4] Financial Resources (*)	Peru, like all countries in the region, has been hit hard by the COVID-19 pandemic, meaning an 11% drop in GDP and a drop in tax revenues in 2020, which has pushed 2 million people into poverty. It is estimated that by 2021 there will be a strong rebound that will translate into accelerated public investment, with GDP that will not	For sustainability the project managed to incorporate within the Institutional Operational Plan (POI) of the DGEE, indicators on energy auditing and continue with the support of the proposed standards in the instances that are needed, attached POI of 2021 ao17, a9, a10 as well as tdr of the person who is hired to monitor it.	author	The information was incorporated into the U.S. NAMA paragraph.

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			return to pre-pandemic levels and also with a low recovery in private spending.			
129	68	[H4] Financial Resources (*)	regulatory changes for load structures, standard bus standards	These have already published both	author	Fixed the paragraph. However, the information available is that this regulation is pre-published as of February 2021.
130	68	[H4] Financial Resources (*)	incentives for the acquisition and operation of units,	The Project was working with the IDB to develop the study of electric bus business models, which has helped develop an IDB financing line to promote electric vehicles with favorable financing conditions.	author	Added this infomration
131	68	[H4] Financial Resources (*)	the bill for the promotion of electric transport has not been approved	That is why we have worked with the Minem EGE to publish a DS, because it is the only one we could do within the Minem competition.	author	Well, this information is built-in
132	68	[H4] Socio-political/economic (*)	as are the mayors	We have worked with several mayors to promote renewable energy and electric transport, for example San Borja and La Molina	author	It's ok, but the purpose here is to visualize general trends
133	68	[H4] Socio-political/economic (*)	documented lessons learned from the project	They are documented in quarterly reports and PIRs, communicated at CDP meetings and other workshops held	author	The point is that the lessons learned must be processed and systematized in a central document that can be consulted publicly and that is not there. All this is part of the strategy of exit and knowledge management of the project
134	69	[H4] Institutional framework and governance (*)	as "Moderately Unlikely".	But the institutional framework and governance is already very much aimed at supporting promoting the sustainability of the Project and increasing RERs and electric transport, etc., so it cannot be unlikely when it is already institutionalized and in implementation.	author	It was reformulated to MP. The institutional issue has its problems.
135	69	[H4] Overall probability of sustainability (*)	Moderately unlikely	See comment above	author	See previous

#	Page	Heading	Comment scope	Comment text	Institution	Action taken by Evaluator
136	70	[H3] 3.3.10. GEF additionality	moderately likely	I think they are likely, considering that the final product of the Project was to have the four NAMAs designed, formally recognized by minem and Minam and with their MRV systems designed and in implementation, with which the project has fulfilled everything. The Minem contract an MRV specialist to manage the MRV platform so there is a commitment to continue its use and inclusion in the annual reports to Minam.	author	The explanations at this point have been developed before, so the suggestion is not accepted.
137	70	[H3] 3.3.11. Catalytic role / Replication effect	a project exit strategy that allows you to sustain and scale the successful experiences implemented	In the last 6 months of the project focused on the training of technical specialists from Minam, Foncodes-Midis and the DGEE (among other actors) just as part of the exit and knowledge transfer strategy. The recommendation to hold a closing event was not possible because of the pandemic and also because of election restrictions, but the Project contract the publication of a closing note communicating to the public about the closure of the project, thanking the partners, allies and entities involved, and also to leave the public the information links , tools and apps produced by the Project. With regard to sustainability, the DGEE has hired 3 specialists who will give sustainability to the products and initiatives of the Project, including a specialist in MRV, a specialist in audits, and a specialist in technical standards to complete the publication of the standards developed by the Project. Through the DGEE's annual POI, you can easily see the EDge's level of commitment to promoting and continuing the initiatives, vision and goals set by the project, including the associated budgets for services and specialists.	author	Well, it has already been explained previously that the exit strategy of the project includes all its components, in addition to being explicit, with established institutional commitments. This is not seen in the project.

#	Page	Heading	Comment scope	Comment text	Institution	Action taken by Evaluator
138	70	[H3] 3.3.11. Catalytic role / Replication effect	With regard to replication, at the moment it is not expected to occur in the short term, as a result of the lack of agreement between the actors and the political and economic situation in the country.	The replication of the MRV platform in other sectors is already under evaluation, which we see as the most replicable part of the Project.	author	It's okay, it's been mentioned before.
139	71	[H4] design	x	complete	author	
140	72	[H4] M&E System	However, the risks associated with the country's institutional political situation were underestimated by both the project and UNDP, which despite the fact that in 2017 the risk had already been classified as "substantial", the MTR was done late between the 38th and 41th months of execution instead of the 24 months. To this should be added that UNDP could have made use of other alternative tools such as follow-up visits to the project or advance the MTR to analyze the causes of the problems and have proposed measures to solve them.	It is not true, one because all the goals and indicators in the prodoc were met, and two because UNDP has done quite a few activities to help mitigate the risks and ensure that the project met the indicators and targets.	author	This statement is not accepted. Not all M&E and compliance with indicators are being analyzed. What is said is that your risks were underestimated, so the MTR was done belatedly. Had the opposite been the case, the MTR would have been brought forward or a mission of re-monitoring by UNDP could have been carried out.
141	74	[H3] Relevance, ownership and sustainability	.	Support why. As we said UNDP had countless meetings with the MEF and the ministers on duty, it was achieved that the MEF for the first time is part of a steering committee on UNDP projects.	author	Here we are in co-inclusions, the support is in the body of the report. Mef achievement to be added
142	75		Extend between 3-6 months the project, so that the ongoing consultancies can be properly completed and the project exit strategy and its formal closure can be elaborated.	Eliinar this recommendation, it is not feasible	author	This comment is not accepted, but the deadline will be reduced, as there are very few resources left. I think it's still important, but it will be the UNDP and MINEM who would see if they take it or not.

Comments 2nd Round: 38

Date: May 18, 2021

#	Page	Line	Heading	Comment scope	Comment text	Institutions	Evaluator action
1	7	22	[H1] Executive Summary.	The duration of the project would be four years (Oct 2015-Oct 2019)	Specify that this period refers to the CEO Endorsment. PRODOC's cover says until JULY 2020.	A	The deadline for the signed prodoc was revised and put in place. However, the 5-year period is left, which was also what the project was planned with.
2	7	24	[H1] Executive Summary.	However, delays in the start of the project and then by the problems caused by the situation of political and institutional instability existing in the country and the pandemic, forced to carry out 2 extensions of the project (2019, 2020) establishing as the end date April 2021, so the execution went from 4 to 5.5 years.	Check that the other sections of the report are based on these reasons as it points out others slightly different. View pages xx, xxx	A	revised
3	7	42	[H4] Design (Prodoc)	The estimated duration of the project was a major factor that negatively impacted their planning,	The error jumped only at the end of 2019, so half of the project at least did not suffer any adjustment since we never found out about the discperance until the end of 2019 when we wanted to ask for extension for the delays of project start- up. **The suggestion is to remove the 'severe'** level **because the planning was only**	A	The comment was revised and the planning topic is removed as it pertains to the project implementation.

#	Page	Line	Heading	Comment scope	Comment text	Institucións	Evaluator action
					affected POAs 2020 and 2021 when we saw that you have to run. THE first half of the project planning was not affected because we never found out until the end of 2019.		
4	8	2	[H4] Design (Prodoc)	it has had a severe impact on their activities.	Ditto to the previous comment.	A	Previous IDEM
5	8	24	[H4] execution	had to change its planning on the fly	I do not change the planning since he got two extensions achieving 5 and a half years, which if it is true is that he had to run in the last 16 months. It is requested to specify that it was not the whole project.	A	revised
6	8	25	[H4] execution	to adapt it to a 4-year project	Hmmm I think it was already explained that the POA was always for 5 years, it was not readjusted to 4 years, revise the wording a bit.	A	The project was always 48 months, but it was planned for 66 months (it was believed that the count began with the date of the coordinator's contract), a situation that was wrong from the beginning, therefore it was never in line with what was approved by the CEO of the GEF (which is what matters in these cases). The text of the 4 years is going to be revised, the truth is that it was not readjusted, it was only an extension of the project.
7	9	11	[H4] M&E System	the risks	Both in the Atlas and in the PIR the only risk reported was the Political / Institutional, there were no others. It should not be generalized because it suggests that there was more than one risk. **It is requested to specify that it was the Institutional Political Risk as it was before that was not handled.** However, it is also suggested to clarify that "considering the	A	revised

#	Page	Line	Heading	Comment scope	Comment text	Institucións	Evaluator action
					high political volatility and the constant changes of authorities and closure of the congress, it is very likely that no high-level coordination effort or strategy to get the approval of regulations could have been successful in these circumstances."		
8	10	34	[H4] execution	which directly impacted the project schedule.	Ditto to the previous comments concerning this impact.	A	revised
9	12	1	[H2] Recommendations	Recommendations	Incorporate the recommendations regarding the hiring of M&E Specialists even if it is not contemplated in the original project team as well as the use of risk monitoring tools by UNDP.	A	Recommendations reviewed
10	12	4	[H2] Recommendations	Extend between 3-6 months the project, so that the ongoing consultancies can be properly completed and the project exit strategy and its formal closure can be elaborated.	The project has already closed. It is not a valid recommendation. It is requested to eliminate it because it will not be useful, perhaps to mend that longer execution horizons are contemplated for this type of project.	A	Fixed
11	22	4	[H2] 2.1. Start and duration of the project	would end on October 15, 20	The Prodoc says July 22, 2020, correct. What was understood is that it was going to October 2020 because the Multi-Year Plan does not specify how many months of year 5 are considered.	A	The dates of the prodoc are bad, the project was 5 years. This type of problem is recurrent in the prodoc. Better to leave it at that.
12	22	12	[H2] 2.1.	has had a severe impact on its activities	Ditto to the executive summary comment that it was not severe and was in the second half of the project.	A	Fixed

#	Page	Line	Heading	Comment scope	Comment text	Institutions	Evaluator action
			Start and duration of the project				
13	22	15	[H2] 2.1. Start and duration of the project	.	It should say an extension because of this problem, the second was for another reason. Reviewing the reasons for the extensions that are noted at the start of the report, differs and reads as follows: ***"delays in the start of the project and then by the problems caused by the situation of political and institutional instability existing in the country and the pandemic, forced to carry out 2 extensions of the project (2019, 2020) establishing as the end date April 2021, so the execution went from 4 to 5.5 years"***	A	Precision was included and is now in line with the executive summary
14	22	17	[H2] 2.1. Start and duration of the project	of 6 months in 2019 and then another for 6 months	4 years + 2 extensions of 6 months each, does not add up to 5.5 years	A	Corrected, it's 18 months in total
15	39	34	[H3] 3.2.1. Adaptation management	This delay in the MTR – which was to be executed in October 2017 – is partly explained by the belief that the project would last 5 years (2015-2020, with MTR in October 218) and that the time	Also, add that the process failed 2 times which took like 6 extra months.	A	Added paragraph

#	Page	Line	Heading	Comment scope	Comment text	Institucións	Evaluator action
				account was applied from the hiring of the coordinator and not from the signing of the Prodoc.			
16	41	42	[H3] 3.2.1. Adaptation management	, it is very feasible that no high-level coordination effort or strategy	This should also be discussed in the M&E and/or Implementation Implementing Agency section, which has another tone in the wording as requested in comments above.	A	Added paragraph in M&E as well
17	44	2	[H3] Input Design (*)	and furthermore, the M&E Plan does not assign any role to the GEF's national focal point in the final evaluation of the project or in the CDP.	As for the final evaluation Gef Operational Focal Point has been involved since the elaboration of the terms of reference, notice of the start of the evaluation, invitation to interviews and likewise, will be part of the next stages of the process.	A	But this paragraph refers to the design of the M&E plan as described in the prodoc. It has nothing to do with the implementation of the plan.
18	44	14	[H3] Input Design (*)	and.	Specify that it affected the planning of the last POA for the last 15 months of execution, so as not to generalize. And suddenly explaining that it was affected refers to the impression on the part of the donor to better understand	A	Paragraph was added, but it was specified that the planning was based on the wrong basis from the beginning of the project. It eliminates perceptions or impressions, it did not refer to the donor, it referred to the wrong perception of the executor regarding the progress of the project, which went from being "well" to being "behind".
19	45	39		as for example the MTR was held between December 2018 and May 2019	Complete and refer to the fact that there were 2 failed processes and that the project was thought to be 5 years old.	A	Reference included
20	46	7		that affected quality	Explain in more detail why? More specific according to what was discussed in the call	A	Quality erased

#	Page	Line	Heading	Comment scope	Comment text	Institucións	Evaluator action
21	47	22	[H2] 3.2.5. Quality of execution partner implementation (*)	they.	Who are you referring to? The 7 directors? require.	A	It refers to new topics and goals.
22	48	33	[H2] 3.2.7. Financing and Co-financing of the project	a serious impact on the progress of the project,	Idem to the comments on this point in earlier parts of the report. For example the gef parcepcion.	A	It does not refer to the GEF here. The issue is that the project was overdue according to what the GEF approved, so from one day to the next the project was overdue, or if not, no extension is requested. In any case, the perception is erased.
23	53	18		and negatively impacted the execution of activities, their planning and resources, including M&E.	Idem to previous comments on this point.	A	That's been explained before. Subsequent graphs illustrate the point. Explanatory line added
24	53	20		Another key aspect was a slow reaction to the "high risk" of the project and that it was reported in the first RIP (RIP), where measures could have been taken such as advancing the MTR or conducting a direct undp monitoring visit to look for solutions that could be controlled by the	I think this is not very much in line with the jsutifications of the mtr backlog that are mentioned in other parts of the project. Also, specify what were the main risks of the project, reving all the PIR was always reported as the only risk the institutional politician and Covid.	A	This is in line with what has been said throughout the document. The problem of the batra evaluator's contract is only one factor, it does not justify the delay in planning or in the reaction to implementation problems. The issue again deals with the actions that UNDP could have taken by having a high-risk project, which were explained before what they were. The next paragraph indicates that the political risks were well addressed.

#	Page	Line	Heading	Comment scope	Comment text	Institucións	Evaluator action
				project and, in addition, the error could have been detected in the execution deadlines well in advance.			
25	63	30	[H3] Achievements by Result (*)	Each NAMA has its MRV	Develop more. accomplished?	A	Paragraph added
26	68	20	[H3] Efficiency (*)	, the cost of the study	Which one? Te's factinility with the IDB?	A	It's that.
27	68	33	[H3] Efficiency (*)	UNDP	They are approved by the GEF, not UNDP.	A	corrected
28	68	37	[H3] Efficiency (*)	This error was maintained for 2 years, which meant an impact on the planning of the activities, as well as the extension of a project that was not really in delay according to the project document used.	Review according to what was discussed..	A	This has been explained throughout the document, it is something that already has redundancies. the section where this is discussed is going to be referenced
29	74	34	[H4] design	and negatively impact the progress of the project.	Idem to the above comments. As discussed at the meeting.	A	Paragraph was adjusted
30	75	13	[H4] execution	annual budgets were out of time	The backlog was actually for other reasons. This was because of the overall startup delay not because of the discprepance between the two versions.	A	Fig. 4 clearly shows the expense gaps versus the prodoc and CEO budgets for virtually every year. The backlogs also have other examples shown in the

#	Page	Line	Heading	Comment scope	Comment text	Institucións	Evaluator action
31	75	15	[H4] execution	consequence 2 extensions of the execution period	wrong. The reasons are different as mentioned in previous sections was because of a delay in starting and because of the pandemic, it coincided that at that time the error jumped.	A	But if the paragraph includes all the factors, the delays and the pandemic. The paragraph will be separated to avoid confusion.
32	76	14	[H4] M&E System	the risks associated with the institutional political situation of the project country	Specify that it was only one mainly INSTITUTIONAL-POLITICO.	A	The 2017 PIR talks about political and regulatory risks.
33	77	38	[H3] execution	which rightly justified the 2 extensions of the project,	Do not agree with the reasons presented in previous sections, please review.	A	Paragraph changed
34	78	27		Recommendations	There should be more recommendations regarding the hiring of monitors, in terms of project design, adaptive management, risk management.	A	Added further recommendations in this regard
35	78	30		Extend the project by 3 months, so that the pending consultancies can be properly completed and the project exit strategy and its formal closure can be elaborated.	Delete this recommendation as the project has already closed	A	OK, reformulated
36	79	44	[H2] 4.4. Lessons Learned	The usual administrative and start-up times that occur during project execution should also be included in the design of projects.	This sounds more like a recommendation	A	Reformulated

#	Page	Line	Heading	Comment scope	Comment text	Institutions	Evaluator action
37	80	4	[H2] 4.4. Lessons Learned	, but it must be a precedent for future projects to carry out a consistency check between the document approved by the CEO of the GEF and the one to be signed by the beneficiary government.	ditto.	A	Reformulated
38	80	12	[H2] 4.4. Lessons Learned	Although the GEF does not require each project to have an M&E specialist, this should be a relevant option in conceptually complex and multi-stakeholder projects, as there would be more possibilities to analyse the relevant actors and their risks, as well as to refine and create specific measurement instruments to collect information and define appropriate indicators.	ditto.	A	Deleted, only recommendation left

Comments 3rd Round: 17 Date: June 4, 2021

#	Page	Paragraph under comment	Institution comment	institution	Action taken by Evaluator
1	7	Executive Summary.	It has 7 pages and should be up to 4 pages	Author	This is what has been achieved with the agreement of the parties, better to leave it at that so as not to provoke further comments
2	11	Assessment rating table	To break the logic of the text, move the evaluation rating table immediately after the project description (p. 7)	Author	Moved
3	12	April-October 2021	Months are written in lowercase	Author	arranged
4	15	List of Acronyms	Move the List of Acronyms to before the executive summary to make it easier to understand	Author	move
5	16	introduction	The length of the introduction is 6 pages, it is suggested max 4 pages	Author	Preferable to leave the text as approved with the previous reviewers
6	16	Methodology used	Overall the methodology is very weak. It is requested to include the variables used for the preparation of the Interview Guide for each of the aspects evaluated. Variables used to evaluate design, implementation, financing, etc.	Author	All of that is in the annex with the evaluation questions. The reference is added
7	16	Methodology used	According to the TDR, the following is missing: The Consultant is expected to follow a participatory and consultative approach that ensures close collaboration with the project team, government counterparts (the GEF operational focal point), implementing partners, UNDP country offices, the regional technical adviser, direct beneficiaries and other stakeholders.	Author	It is included in the next paragraph, it is not exactly the copy of the TDR. Text is to be added.

#	Page	Paragraph under comment	Institution comment	institution	Action taken by Evaluator
			In addition, the TE consultant should use gender-sensitive methodologies and tools and ensure that gender equality and women's empowerment, as well as other cross-cutting issues such as the project's contribution to the CPD and UNDAF and the SDGs are incorporated into the TE report.		
8	16	Assess the relevance of the original project design; 2.Analyse and evaluate the relevance, effectiveness, efficiency and sustainability of results; 3.Identify the adaptive management strategies implemented by the project to adapt the project intervention to changes in the national context; 4.Evaluate the elements that could lead to the replicability and scalability of the project results; 5.Document and feedback lessons learned; 6.Document the institutionalization of the processes driven by the project; 7.Assess the role and contributions of the partners and their influence on the	Are these the specific objectives of the evaluation? Point out what they are	Author	Added clarification

#	Page	Paragraph under comment	Institution comment	institution	Action taken by Evaluator
		achievement of the objectives.			
9	19	Interviews with key informants: interviews were conducted with the undp project team, government officials involved in the project, participating NGOs, municipalities and community organizations, among others. To this end, a series of open and semi-structured questions was prepared and asked of the interviewees.	Include in the Annex the total number of interviewees and the interest groups to which they belong. If there are more interviewees in a group, explain why. If you have not been able to interview a particular group, also explain why. The gender and intercultural approach used to carry out the evaluation must also be highlighted (were equal numbers of women and men interviewed? Indigenous communities?, etc)	Author	The total is in Annex 5, while specific situations are found in the subsection strengths and weaknesses of methodoloogy
10	20	criteria	As part of the criteria for sampling, it is expected that the profile of the informants will be specified. Example: Were the informants from the top management of the ministries? Were they executors of the project? both?? Why?	Author	Added paragraph and moved
11	20	Criteria for sampling actors and project sites The project includes a variety of actors related to transportation, energy efficiency and regulations. Annex 5 shows the actors interviewed during the round of virtual interviews and whose number reached 30 people, covering 19 public and private institutions,	Move this paragraph to the previous page because it explains the "interviews with key informants" thing. Turn this paragraph into a table detailing when informants were had from each public institution and in general from each actor.	Author	Added text and moved

#	Page	Paragraph under comment	Institution comment	institution	Action taken by Evaluator
		among which was the project executing team, officials from MINEM, UNDP, MINAM, FONCODES, GIZ and private companies such as Engie, ENEL and ByD, which are mainly related to electric transport.			
12	21	Work Plan	Move the work plan immediately after the evaluation objectives	Author	Moved
13	23	Project description and development context	Two sections are missing: Development context: environmental, socio - economic, institutional, and policy factors relevant to the project objective and scope Theory of Change	Author	That is already included in point 2.2. The prodoc has no ToC, that is explained in findings and a diagram was drawn up. Added text in 3.1 about this.
14	24	To achieve the objectives of the project, 4 results were defined and the realization of 32 activities and/or products that are part of its logical framework, which are shown in Table No. 3 below. Table 3: Components and products to be achieved established in Prodoc	Review in PRODOC	Author	You don't understand the comment, you're just analyzing the prodoc.
15	31	Analysis of the logical framework and the Results Framework	This section requires the following response: Is the logical framework of the project aligned with the results frameworks of UNDP Peru and the UN? (DPC and UNDAF)	Author	This is in section 3.3.2 Relevance
16	44	: MI	Place the full name of the qualification	Author	Completed

#	Page	Paragraph under comment	Institution comment	institution	Action taken by Evaluator
17	83	Annexes	Missing to incorporate annexes: annexes: TE ToR (excluding ToR annexes) TE Mission itinerary including summary of field visits List of persons interviewed List of documents reviewed Evaluation Question Matrix (evaluation criteria with key questions, indicators, sources of data, and methodology) Questionnaire used and summary of results Co -financing tables (if not included in body of report) TE Rating scales Signed Evaluation Consultant Agreement form Signed UNEG Code of Conduct form Signed TE Report Clearance form Annexed in a separate file: TE Audit Trail Annexed in a separate file: relevant GEF/LDCF/SCCF Core Indicators or Tracking Tools	Author	They joined, since the others were already: UNEG signed Signed clearance: ¿? Signed UNEG Core indicators. Signed Evaluation Consultant Agreement form??
	iv		In the point of Achievement of Results (page iv) it is indicated that the inclusion of climate change indicators by the MEF would be pending, among others. It is not clear what type of indicators they refer to and what they would measure, in any case the development of indicators is the responsibility of the national climate change authority, i.e. the Ministry of the Environment.	MEF	Added text to clarify in the session achievement by results and table 13. There is an interesting IDB document for markers and indicators in national budgets: https://publications.iadb.org/publications/spanish/document/Marcadores-presupuestarios-de-cambio-climatico-Conexiones-entre-los-sistemas-de-clasificacion-financiera-y-ambiental.pdf
			Section 1.3 (Structure of the Evaluation Report) describes the content of the Report, however, this description is not related to the Index that was developed on page 3 (e.g. it mentions that it is made up of 6 sections when the index shows 5, it does not describe	MEF	Fixed the bug. It's that there are 6 sections including the executive summary.

#	Page	Paragraph under comment	Institution comment	institution	Action taken by Evaluator
			all the annexes that make up Section 5: Annexes, among others). Review is suggested.		
			In section 2.2. (Problems that the project sought to address) it is mentioned that the proposed NAMAs were elaborated based on the commitments voluntarily assumed by our country and in accordance with the actions implemented through the existing regulations on rural electrification and promotion of Non-Conventional Renewable Energies. In this regard, a set of related rules and regulations are cited. However, it is not mentioned as a reference to the General Law on Rural Electrification (Law No. 28749) or to the Law establishing the Energy Security System for Hydrocarbons and the Energy Social Inclusion Fund (Law No. 29852) and its regulations, which constitute a fundamental part of the regulatory framework on the subject. For this reason, it is recommended that it be included in the relevant section (p. 25).	MEF	Sde added these rules
			In section 2.4. (Expected results) it is mentioned that in order to achieve the objectives of the project, 4 results were defined and 32 activities and/or outputs were carried out, which are shown in Table No. 3; however, the above-mentioned table lists a total of 34. Review is suggested.	MEF	corrected
			In section 2.5. (Established benchmarks) it is mentioned that the project indicators contain a portfolio of key indicators that make up the results framework, which are shown in Table No. 4. On these indicators it is mentioned that	MEF	The explanation is in the findings section. Added reference and added annex with analysis of indicators.

#	Page	Paragraph under comment	Institution comment	institution	Action taken by Evaluator
			"they do not meet the SMART criterion because they are very general, some correspond to products and, in addition, they cannot be measured reliably". It is suggested to support this last point in greater detail, since it leaves doubts about whether it is for all the indicators shown in the table. For example, you could specify which of the 5 characteristics of the SMART criterion do not meet these indicators.		
			In point 2.6 on key stakeholders, a table (Table No. 5) describing the role of the main actors involved is included. In the case of the Ministry of Economy and Finance (MEF), it is noted that it "defines the national budget and allocates public resources. It has an important role in directing public funds to climate change mitigation actions and ensures that limited [sic] available funds can serve to catalyze investment. It is also in charge of the Public Procurement and Customs System," however, since it is not the mef's role to ensure that investment is catalyzed, the following wording is suggested: "It defines the national budget, allocates public resources for actions to mitigate and adapt to climate change, and promotes that the available resources are oriented to achieve the expected results."	MEF	This was in the Prodoc, but the paragraph was reworded.
			In point 4.3 on recommendations, only the Ministry of Transport and Communications and the MEF are included as responsible entities in recommendation A2.5. "Define an inter-institutional governance scheme between operators, MTC, MINAM, MEF, ATU	MEF	The above institutions were incorporated. The recommendation was intended to show the authorities to lead the process and make the corresponding coordination with the other actors.

#	Page	Paragraph under comment	Institution comment	institution	Action taken by Evaluator
			to continue the electric bus pilot in conjunction with TransPeru and establish specific working groups"; however, the content of the proposal should also include MINAM and the ATU.		
			On the other hand, the implementation periods of all recommendations must be updated, since it is recorded that they begin in April 2021.	MEF	Updated
			Share with stakeholders the documents that argue the technical feasibility of NAMA #3: grid-connected renewable energy and/or EE; which promotes electrical viability in buses and taxis. Since there would be consultancies such as: the diagnosis to evaluate pilot projects for electric mobility, a study to develop the cost-benefit proposal of regulatory changes to promote and increase electric mobility; and the implementation of a market study for the U.S.	MEF	A paragraph was added to the recommendation.
			In order to understand more clearly the concepts and ideas expressed in the report, it is suggested to insert a section/section of the acronyms used throughout the Report or, failing that, to define them in advance before mentioning them. Similarly, it is suggested to standardize the wording of some of them (e.c. Prodoc, prodoc and PRODOC; e-Mujer and eMujer; M&E and MyE, among others).	MEF	Included at the beginning of the report
			It is suggested to correct the following typographical errors: oIn table 3 it says "InformaGEI" oIn table 4 it says "Portfolio" oIn table 8 it says "daughter of route"	MEF	InformaGEI was the old system, that's why it's there. Fixed bugs

#	Page	Paragraph under comment	Institution comment	institution	Action taken by Evaluator
			oIn numeral 3.1 of table 16 it says "Lambayenque" oIn numeral 3.4 of table 16 it says "Eléctico"		

Comments 4th round: 59 July 05,2021

#	Page	Heading	Comment scope	Comment text	Author	Evaluator response
1	6	[H1] Project Information Table	4.500.000	**Comment by Ernesto Kraus:** As this report is submitted in english, please use english punctuation rules for all figures.	Autor	Revised
2	6	[H1] Project Information Table	everything was considered as in cash	**Comment by Ernesto Kraus:** Please put the amounts of each co-financier at the end of the project (estimate)	Autor	Revised
3	6	[H1] Project Information Table	15-10-2019	Please revise	Autor	Revised
4	6	[H1] Project Information Table	Project Name Nationally Appropriate Mitigation Actions in the Energy Sector in Peru ID GEF of the project 883164884 Financial summary Approved by GEF Executed to the Final Evaluation (*) %	Please use the table format and criteria provided in the guidance for UNDP supported GEF projects July 2020 version.	Autor	Revised

#	Page	Heading	Comment scope	Comment text	Author	Evaluator response
			UINDP ID Number 776994679 In cash Country Perú GEF Grant 4.500.000 4.470.412 99% Co-financing (USD) UNDP 1.000.000 803.240 80% MINEM 20.000.000 73.365.722 367% Region LAC MINAM 600.000 951.400 159%			

#	Page	Heading	Comment scope	Comment text	Author	Evaluator response
			MEF 9.350.000 16.393.660 175% Subtotal for cash co-financing 30.950.000 91.514.022 296% Co-financing in kind (USD) UNDP 60.000 56.378 94% Area of interest Climate change MINEM 800.000 everything was considered as in cash Focal area objectives (OP/SP) FA Objectives: # 3 (MCP-3): " Promotion of Investment in Energy Technologies"; and # 6 (CCM-6): " Support to support and capacity-building			

#	Page	Heading	Comment scope	Comment text	Author	Evaluator response
			activities under the Convention " MINAM 200.000 MEF - Project Gender Marker No Total in kind 1.060.000 56.378 5% Totals of Project resources 36.510.000 96.040.812 263% Implementing Partners Ministry of Energy and Mines (MINEM) Other partners involved MINAM, MEF, FONCODES, Produce, MTC PRODOC Date Signature 15-10-2015 Start date Project Operational Closing Date Midterm evaluation Prodoc 15-10-2015 According to PRODOC			

#	Page	Heading	Comment scope	Comment text	Author	Evaluator response
			14-10-2019 PRODOCExpected 15-10-2017 Real 16-04-2016 Real 23-04-2021 RealActual 12-12-2018 Substantive Review No Follow-up visit report No Final Evaluation Date Final Evaluation Team PRODOCExpected 06-08-2019 Jorge Leiva V. RealActual 15-10-2019 International Consultant (*): As per April 19, 2021 Balance (USD) 29.588			

#	Page	Heading	Comment scope	Comment text	Author	Evaluator response
5	10	[H4] Implementation	The existence of 2 versions of Prodoc complicated the execution	**Comment by Ernesto Kraus:** There wasn't 2 versions of the prodoc, it was always one. This review will be attached to documentation and email exchanges between the regional hub and the country office in which the project duration was repeteadly reconfirmed since LPAC, during DOA, to prodoc signature stage, ASL first allocation and finally during the inception workshop, held in 2016.	Autor	It was included in the report the new information provided by UNDP.
6	10	[H4] Implementation	The existence of 2 versions of Prodoc complicated the execution, since this finding was known approximately 4 years after starting the implementation of the project, since at the theoretical end of 4 years of the project there was a remnant close to 38% of the GEF funds, so it was necessary to request the extension for an additional year to fully execute the project.	The project was extended for 1 1/2 years in the end, the project duration misunderstanding/failures (even after many clarifications as per evidences) was never an issue in the planning exercises of the project during its lifetime (it always had 4 years of duration). UNDP has not rectified it through an adenda or note to file but at the working level this was clear to MPU.	Autor	This view is contradictory regarding MPU's comments during the 1st and 2ond round of comments, where the MPU stated that it had always planned for a project of 5 years term.
7	10	[H4] Implementation	The existence of 2 versions of Prodoc complicated the execution, since this finding was known approximately 4 years after starting the implementation of the project, since at the theoretical end of 4 years of the project there was a remnant close to 38% of the GEF funds, so it was necessary to request the extension for an additional year to fully execute the project.	**[REPLY 1 TO COMMENT 6]** **Comment by Ernesto Kraus:** There was no budget failure. The Total Budget and Workplan was planned to be implemented for 4 years of execution, in 5 different years, as, at the time of formulation it was envisaged that the project was not expected to start in January.	Autor	See comment above. Again, UNDP had a planning of 4 years, but the MPU was for 5 years, according to the comments to the evaluation report provided by the MPU.

#	Page	Heading	Comment scope	Comment text	Author	Evaluator response
8	10	[H4] M&E System	Other additional causes	**Comment by Ernesto Kraus:** Also the fact that the project implementation started in April 2016 (limited as there was only the project manager hired, see inception report). This is 6 months after prodoc signature and 8 if we count the inception workshop as the start of project "hard" activities. So, if we take this into consideration, we have that at October 2017, the project had 1 and a half years of implementation (from PM hiring) or 1 year and 3 months (from Inception workshop). Regional Office provided	Autor	Added some text to reflect this comment. However, according to the PIR 2017, the project DO rating was "moderately satisfactory", which means that it was on-track with minor issues, but IP rating was "MU". Unfortunately, PIRs 2017 and 2018 do not provide any explaination of reasons regarding planning MTR at such late date, they just stated that MTR was planned 34 months after project started.
9	10	[H4] M&E System	mid-term evaluation	**Comment by Ernesto Kraus:** This process was carried out in August 2018 for the 1st time to comply with the goal of having a finalized MTR in December 2018 (see first PIR 2017 and PIR 2018) only after the third call for proposals attempt, a consultant fit for the task was identified and hired. See attached evidence.	Autor	The issues regarding hiring of the MTR evaluator is already included in the report. The key here is why the MTR was planned so late, and this answer fits well with a 5 year project.
10	11	[H4] M&E System	discrepancy found in the duration of the project	Comment by Ernesto Kraus: Please see the comment related to the 5 columns in the budget. This could be considered a design mistake, not sure how much an oversight one for the reasons exposed before.	Autor	There are several projects that start at midyear, the uncommon is finding a project startig in january, so most of

#	Page	Heading	Comment scope	Comment text	Author	Evaluator response
						projects take a portion of a year and however, they do not present this discordance.
11	12	[H4] Implementation	belief	misunderstanding? It is clear in the DoA that the PRODOC signature kicks off porject implementation.	Autor	Added a text line regarding that it was MPU's belief. According the comments and interviews, MPU believed that the project start was at the date of hiring the coordinator.
12	12	[H4] Implementation	belief	**[REPLY 1 TO COMMENT 11]** **Comment by Ernesto Kraus:** please see attached communication in which the start date and duration is clarified to the CO. This was additionally clarified during the inception workshop held in 2016. See page 6 and 37 of the project inception report attached.	Autor	See above. A paragraph was added establishing that UNDP clarified this issue since the very beginining of the project implementation.
13	12	[H4] Implementation	inception	April 2014 CEO Endorsement October 2015 PRODOC Signature December 2016 Inception Report	Autor	See above
14	12	[H4] Relevance and ownership	ERM	**Comment by Ernesto Kraus**: Please ensure all acronyms are added to the acronyms list at the beginning of the document.	Autor	Corrected, it means MTC
15	12	[H4] Relevance and ownership	ERM	what ERM stands for? Please acknowledge that there might be conflicts of interest with the participation of businesses in Steering Committee of projects as strategic decisions and project activities	Autor	See above

#	Page	Heading	Comment scope	Comment text	Author	Evaluator response
				are discussed and this can be considered privileged information when participating in project bids. Another stances of participation of business as technical meetings might have been a better approach.		
16	12	[H4] Relevance and ownership	with the laws on distributed electricity generation and the promotion of electric transport being unlikely to be enacted, key reforms that would allow, respectively, a greater participation of solar energy in the electricity market and the introduction of electric mobility.	not clear	Autor	Revised
17	13	[H2] Recommend ations	transport	This is going to be continued by the recently endorsed GEF 7 E-mobility project	Autor	OK, some text added for this GEF-7 project. However, the recommendation addresses another issue, which is the organization and sharing of the project experience.
18	14	[H2] Main lessons learned.	results	This is not completely accurate, there are specified timelines. @Ernesto please complement	Autor	The issue here is that timelines were understood and applied different by the PMU. The planning documents from the MPU and DGEE are all for 5 years, thus denoting a communication

#	Page	Heading	Comment scope	Comment text	Author	Evaluator response
						issue between both agencies.
19	14	[H2] Main lessons learned.	results	**[REPLY 1 TO COMMENT 18]** **Comment by Ernesto Kraus:** Please see the DOA for this project attached to this review. Although not included expressly in the Prodoc, the standard operating procedure indicates (page 2, point 4, bullet 1): "where possible, the inception workshop **should be held within 3 months** of project signature". Additionally, as this was a full NIM project, which means that MIMEN was fully in charge of the PMU hiring. As a result, UNDP's control over the timely hiring of the project management unit was very limited.	Autor	See comment bove. Please consider that the paragraph intends to highligth that project installation means the installation of the PMU.
20	14	[H2] Main lessons learned.	unit	Even though the signed version of PRODOC was different form the original one, the 4 year duration of the project was repetitively clarified in: 1. LPAC meeting and 2. inception workshop (clarified twice in the report, check report), 3. ASL planning (annual spending limits), 4. Follow up technical communications between RTA and MPU, 5. All PIRs from 2017 to 2020. The MPU planning of the budget might have considered the incorrect timeframe and deadlines because since the beginning UNDP has shown flexibility to consider extension due to the complexity of project themes and activities and due to political instabilities that delayed project start. There are plenty evidences that the duration of the project was clarified during implementation.	Autor	See above
21	14	[H2] Main lessons learned.	generated confusion and frustration in the executing unit.	**Comment by Ernesto Kraus:** Curious that the PMU was not aware of the project duration after the first 3 months of execution, when the inception workshop was carried out, and in which all project counterparts participated. The project manager is the person in charge of preparing this report.	Autor	Well, I will not add adjectives to this situation, but as shown in the main report the PMU planned for 5 years. I

#	Page	Heading	Comment scope	Comment text	Author	Evaluator response
						added some text statting that there was a issue of misscommunication between UNDP and the PMU.
22	14	[H2] Main lessons learned.	documents	Not sure what is meant here. Which reports? Could you please clarify?	Autor	pendiente
23	15	[H2] 1.1. Purpose and scope of the evaluation	The evaluation period spanned from October 15, 2015, to March 30, 2021, including project activities in Lima and Puno. Finally, the final evaluation took place between February 15 and April 29, 2021.	What is meant by activities? Visits? the period spanned until March 30th but the evaluation went until April 29th? Please clarify.	Autor	This means activities performed by the project between 2015-March 2021. The paragrapgh was modified.
24	15	[H2] 1.1. Purpose and scope of the evaluation	The evaluation period spanned from October 15, 2015, to March 30, 2021, including project activities in Lima and Puno. Finally, the final evaluation took place between February 15 and April 29, 2021.	**[REPLY 1 TO COMMENT 23]** **Comment by Ernesto Kraus:** worth to clarify that the implementation period started in October 2015 upon prodoc signature, but activities started later in 2016, when the project team was finally hired in April 2016.	Autor	Revised, but this text just wants to mention the period covered by the TE, bieng other issues addressed in the implementation section.
25	16		report	Please add the translation period	Autor	included

#	Page	Heading	Comment scope	Comment text	Author	Evaluator response
26	19		Ethics:	Comment by Ernesto Kraus: E) Ethics As per in TE Guidance: Evaluators will be held to the highest ethical standards and are required to sign a code of conduct upon acceptance of the assignment. TE reports *must state that the evaluation was conducted in accordance with the principles outlined in the United Nations Evaluation Group (UNEG) 'Ethical Guidelines for Evaluations'.*[29]	Autor	Ethics section added
27	21		context	Comment by Ernesto Kraus: Please introduce a brief project description here	Autor	The section follows the guidelines 2020. The project description is clear and I would like this section short.
28	21		2015	The project was CEO Endorsed on April 2014 and DOA (delegation of authority) issued in December 2014	Autor	OK, added. Also inclueded new text regarding differences between the CEO and GoP signed documents.
29	21		discovered only after almost 4 years of beginning the implementation of the project,	This is not accurate, in the LPAC meeting it was clarified the timeframe of 4 years for project implementation. See attached support documentation.	Autor	Added information provided by UNDP

#	Page	Heading	Comment scope	Comment text	Author	Evaluator response
30	21			Development context: environmental, socio-economic, institutional, and policy factors relevant to the project objective and scope: Significant socio-economic and environmental changes since the beginning of project implementation and any other major external contributing factors.	Autor	Please leave as it is, I followed the 2020's guidelines of UNDP.
31	30	[H3] 3.1.1. Analysis of the logical framework and the Results Framework	statement	this is very comprehensive, very good analysis. Indeed GEF 6 and 7 projects have enhanced approaches on KM, gender, communication, etc.	Autor	OK, thanks
32	38	[H3] 3.2.1. Adaptive management	is partly explained by the belief that the project would last 5 years (2015-2020, with MTR in April 2018) and that the time account was applied from the hiring of the coordinator and not from the signing of the Prodoc.	Not completely accurate the delay was due to relevant delays in starting project execution and the various deserted processes to hire a MTR evaluator. Where are the evidences for this misunderstanding of the start day? Was it ever consulted or registered?	Autor	That's why it is said "partially explained". Evidence was added about the belief of the GoP regarding the 5 years of project implementation.
33	43	[H3] Implementation of the M&E Plan (*)	considering that the changes introduced to the project very early	**Comment by Ernesto Kraus**: After obtaining input from all stakeholders during inception workshop	Autor	Text was added to reflect this
34	43	[H3]	because the description and numbering of these NAMAs	**Comment by Ernesto Kraus:** This was deliberately designed to define the NAMAs during inception	Autor	The text intends to show that the project team did not follow the

#	Page	Heading	Comment scope	Comment text	Author	Evaluator response
		Implementation of the M&E Plan (*)	of Prodoc do not correspond to the real ones	phase, see review sheets, attached. Below relevant question and agency response: GEF Question at CEO ER: There are no details on end-use sub-/-sector NAMA activities in the project such as energy efficiency, etc. Please clarify. UNDP Response: During the project development phase, a priority setting exercise was conducted with the Government of Peru. The conclusion of this assessment, as presented in Annex 7.5 of the Project Document, was that the project should focus primarily on the implementation of NAMAs in the on and off grid renewable energy fields. As such, the 4 NAMAs targeted for implementation are in these areas. However, at the time of presentation of the project for CEO Endorsement, the Government of Peru has requested that the project also support the definition of NAMAs in the residential energy efficiency fields. Hence, Component 2 of the project will focus on developing detailed NAMA designs in on and off grid renewable energy *and* residential energy efficiency. The implementation of these NAMAS will be coordinated with the ongoing GEF Energy Efficiency Standards and Labels and Lighting Market Transformation projects. The NAMA project will define appropriate NAMAs that encompass the ongoing activities implemented by these projects, thus strengthening the framework for these energy efficiency activities and ensuring that they are embedded into the emerging NAMA structure. This has been clarified in Components 2 and 3 of the project and strengthened in the project framework outputs and indicators.		numbering of NAMAs stated in the prodoc, but had the practice of changing the numbering of NAMAs in their internal reports and PPT presentations, leading to some confusion for whom read the prodoc and other reports. This was also noted in the MTR. Some examples are now provided in the report.

#	Page	Heading	Comment scope	Comment text	Author	Evaluator response
35	43	[H3] Implementation of the M&E Plan (*)	project	are these PIRs? if yes please state clearly or clarify which reports are those...	Autor	IDEM above
36	44	[H3] UNDP implementation/monitoring (*)	sides	Delegation of authority to country office was issued in December 2014 and Project signature by the government came on October 2015.	Autor	OK, but the point here is the signature of the prodoc.
37	44	[H3] UNDP implementation/monitoring (*)	On	It is important to acknowledge that by 2017 the project barely had any delivery and challenges of implementation beyond the political were not yet clear. The agreement to undertake the MTR further down the line was expecting that it could be more productive when project had already quick off with main activities.	Autor	OK, a text is added to reflect this. It's a decisión from the project and UNDP. The evaluation noted that when slow delivery is noted, the MTR or a pre-evaluation exercise would be taken early in order to identfy and fix the problems, as for example, the missunderstanding of project end date.
38	45	[H3] UNDP implementation/monitoring (*)	, which if they would have to have the support of stable institutions, a situation that ultimately did not occur and key regulations have not yet been approved.	Not clear, pelase review	Autor	Revised
39	45	[H3] UNDP implementation/monitoring (*)	coordinator	RTA has always highlighted project duration of 4 years and even though extention of 1 1/2 years was granted by UNDP.	Autor	OK, some text was added

#	Page	Heading	Comment scope	Comment text	Author	Evaluator response
40	46	[H3] Quality of execution of implementing partner (*)	obtained	AS per NIM Modality	Autor	Text added
41	50	[H3] 3.2.4. Financing and Co-financing of the project	that form MINEM's relates to the rural electrification program, and EE project.	Part of MINEM´s rural electrification program? please review sentence	Autor	Revised.
42	50	[H3] 3.2.4. Financing and Co-financing of the project		This has to be added to Tracking tool	Autor	Some text is added to conclusions and executive summary to reflect this.
43	53	[H3] Achievement by objectives	achieved	The data form TT has to be added to this part as well. WE need the concrete/quantitative data for energy saved/generated, emissions avoided, etc	Autor	IDEM above.
44	64		which you can cooperate,	the project has cooperated??	Autor	Revised
45	65	[H4] Efficiency)	unit	AS per NIM modality rules	Autor	Revised
46	66	[H4] Efficiency (*)	GEF	UNDP, not the GEF has granted the two extensions.	Autor	Revised
47	67	[H3] 3.3.5. National ownership	MINEM	A recently endorsed GEF 7 project will work further and upon the results of the E-mobility NAMA.	Autor	I add this tex to the section of sustainability

#	Page	Heading	Comment scope	Comment text	Author	Evaluator response
48	68	[H4] Financial Resources (*)	that	There is a high possibility as per GEF 7 E-mobility project recently endorsed with MINAM as IP.	Autor	Revised, IDEM above
49	69	[H4] Institutional framework and governance (*)	According to various expert opinions, regulatory changes are needed for bidding schemes to introduce electric mobility in public transport, but the project managed to move forward with the approval of Supreme Decree No. 022-2020-EM, which approves "provisions on the infrastructure of charging and supply of electric energy for electric mobility". On the other hand, the ATU, through Directorial Resolution No. 02-2021-ATU/DIR pre-published the "Draft Standard of Bus Electric Standard (BPE) of Technical Specifications for the Standardization of the physical and motor characteristics of the Electric Standard Bus". The DGEE will also draw up the technical regulation of DS-022-2020-EM, which adopts provisions on the charging and supply infrastructure of electrical energy for electric mobility.	GEF 7 -mobility will work with all these actors. MINEM is part of the steering committee of this project.	Autor	revised
50	70	[H4] Institutional framework	term	Please review	Autor	Revised.

#	Page	Heading	Comment scope	Comment text	Author	Evaluator response
		and governance (*)				
51	71	[H4] Overall probability of sustainability (*)	likely	With a new project to work further on e-mobility, resources from MINEM for MRV monitoring, off grid NAMA as a State policy, I wonder if the sustainability of the project is really moderately likely. It seems EE in the weakest NAMA on sustainability, but it is the core mandate of DGEE. It is also very important to highlight the EE NAMA was a continuation of the work started by other GEF Project- Standards and Labels (PIMS 4128) which ended in July 2017. Please strengthen the justification for moderately likely sustainability if this rating is to remain.	Autor	The ratimg cannot be changed. The main issue is taht institutional sustainability and governance is MP, which as per UNDP evaluation guidelines, the overal rating for sustainability should be the lowest rating obtained from the 4 sustainability dimensions.
52	71	[H4] Overall probability of sustainability (*)	likely	No mention to the new NDC of Peru which raised climate ambition was done througout the TE. The new NDC is the means for continuing the project efforts to structure the enabling conditions for National mitigation strategies. Please mention NDC.	Autor	See above
53	72	[H3] 3.3.10. Catalytic role / Replication effect	countries	This is not completely accurate, the project has structured a robust website where all products and results are transparently displayed(please add the website), there are series of powerful videos about E-mujer and support to fund this initiative is being sought by UNDP and government. The project has participated in two climate weeks and has exchanged with other GEF projects. E-mujer has been displayed widely as a successful initiative, the PIR shows systematically all external engagements of this project (links to media)	Autor	Added somed text to reflect this
54	73	[H4] Execution	The confusion caused by the discovery that there were 2	Please revise.	Autor	Revised. Some text was added fo stress

#	Page	Heading	Comment scope	Comment text	Author	Evaluator response
			different versions of the prodoc meant that the project went from having a duration of 5 to 4 years			that the GoP planned fpor 5 years, but for UNDP and GEF, planni gshould just last 4 years.
55	73	[H4] Execution	The combination of the factors mentioned above resulted in 2 extensions of the execution period, eventually remaining at 5.5 years instead of the 4 years initially estimated.	Comment by Ernesto Kraus: As per UNDP-GEF rules, projects can request one single extension of 1 year. Given the circumstances related to the Covid pandemic, UNDP-GEF allowed that projects already extended could request for additional 6-month extension.	Autor	Clarification added.
56	78	[H2] 4.4. Lessons Learned	The discovery of the existence of 2 official versions with different deadlines and disbursements for the same project was an unusual situation, but it had the consequence that the planning and execution of the project activities was carried out based on wrong deadlines that generated confusion and frustration in the executing unit	**Comment by Ernesto Kraus:** Please revise after revising evidence provided	Autor	This twext was revised in order to reflect a lesson learned from the project.
57	78	[H2] 4.4. Lessons Learned	Reports are a fundamental tool to understand the relationship between them and project document. Changing the order of the results in the progress reports and in the communications material used by the projects, produces a confusion to	This last conclusion is not clear..	Autor	Text revised.

#	Page	Heading	Comment scope	Comment text	Author	Evaluator response
			those who read these materials that makes it difficult to really understand what is being developed, so the executing units should maintain a consistency between the different documents.			
58	79		Annexes	Please add all annexes	Autor	These were al included
59	79		Annexes	[REPLY 1 TO COMMENT 58] Comment by Ernesto Kraus: please take a look at the GEF guidance for the list of mandatory annexes.	Autor	Revised

Annex 7: SIGNED UNEG

Programa de las Naciones Unidas para el Desarrollo

Al servicio de las personas y las naciones

Anexo E: Código de Conducta UNEG

La independencia implica la capacidad de evaluar sin influencia o presión indebida por parte de ninguna de las partes (incluida la unidad de contratación) y proporcionar a los evaluadores acceso gratuito a la información sobre el tema de la evaluación. La independencia proporciona legitimidad y garantiza una perspectiva objetiva de las evaluaciones. Una evaluación independiente reduce el potencial de conflictos de intereses que podrían surgir con las calificaciones autoinformadas por parte de quienes participan en la gestión del proyecto que se está evaluando. La independencia es uno de los diez principios generales para las evaluaciones (junto con los principios, metas y metas acordados internacionalmente: utilidad, credibilidad, imparcialidad, ética, transparencia, derechos humanos e igualdad de género, capacidades de evaluación nacional y profesionalismo).

Evaluadoress/Consultores:

1. Debe presentar información completa y justa en su evaluación de las fortalezas y debilidades para que las decisiones o acciones tomadas estén bien fundadas.
2. Debe revelar el conjunto completo de resultados de la evaluación junto con información sobre sus limitaciones y tener esto accesible a todos los afectados por la evaluación con derechos legales expresados para recibir resultados.
3. Debe proteger el anonimato y la confidencialidad de los informantes individuales. Deben proporcionar el máximo aviso, minimizar las demandas a tiempo y respetar el derecho de las personas a no participar. Los evaluadores deben respetar el derecho de las personas a proporcionar información confidencial, y deben asegurarse de que la información sensible no se pueda rastrear hasta su origen. No se espera que los evaluadores evalúen a las personas, y deben equilibrar una evaluación de las funciones de gestión con este principio general.
4. A veces descubren evidencia de actos ilícitos mientras se llevan a cabo evaluaciones. Dichos casos deberán notificarse discretamente al órgano de investigación correspondiente. Los evaluadores deben consultar con otras entidades de supervisión pertinentes cuando haya alguna duda sobre si y cómo deben ser reportados.
5. Debe ser sensible a las creencias, modales y costumbres y actuar con integridad y honestidad en sus relaciones con todas las partes interesadas. De conformidad con la Declaración Universal de Derechos Humanos de las Naciones Unidas, los evaluadores deben ser sensibles y abordar las cuestiones de discriminación e igualdad de género. Deben evitar ofender la dignidad y el respeto por sí mismos de aquellas personas con las que entran en contacto en el curso de la evaluación. Sabiendo que la evaluación podría afectar negativamente los intereses de algunas partes interesadas, los evaluadores deben llevar a cabo la evaluación y comunicar su propósito y resultados de una manera que respete claramente la dignidad y la autoestima de las partes interesadas.
6. Son responsables de su rendimiento y de sus productos. Son responsables de la presentación clara, precisa y justa escrita y/o oral de limitaciones, hallazgos y recomendaciones de estudio.
7. Debe reflejar procedimientos contables sólidos y ser prudentes en el uso de los recursos de la evaluación.
8. Debe garantizar que se mantenga la independencia del juicio y que se presenten de forma independiente los resultados y recomendaciones de la evaluación.
9. Debe confirmar que no han participado en el diseño, ejecución o asesoramiento sobre el proyecto que se está evaluando y que no han llevado a cabo la revisión intermedia del proyecto.

Formulario de Acuerdo de Consultor de Evaluación

Acuerdo para acatar el Código de Conducta para la Evaluación en el Sistema de las Naciones Unidas:

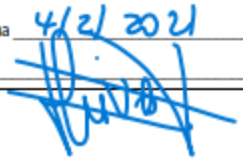
Nombre del Evaluador: Jorge Leiva Valenzuela

Nombre de la Organización de Consultoría (cuando proceda): Consultor Individual

Confirmo que he recibido y comprendido y acataré el Código de Conducta de las Naciones Unidas para la Evaluación.

Fecha de firma 4/2/2021 (Lugar) en Santiago, Chile (Date) 4/2/2021

Firma:



Annex 8: Analysis of Prodoc indicators

Strategy		Indicators		Midterm target	End project target	Comment	Smart Indicator Analysis					Recommendations/examples for the indicator
							specific	measurable	attainable	relevant	temporary	
objective												
1	***Support the Government of Peru in the development and implementation of appropriate national mitigation actions in the energy sector***	1.1	Evolution of baseline emissions		Energy GHG inventory detailed enough at regional and sub-sectoral level to define clear reference conditions for NAMA implementation.	Indicator without clarity regarding what it is intended to measure, very general and ambiguous. What evolution do you want to measure, for how long?	It's not specific on how much you want to measure and track.	It is not known how many inventories these would be.	It cannot be said, since the definition of indicator is very ambiguous.	It does not specify the subsectors .	It does not define when it is measured, or the period it is intended to cover	"Inventory of national and regional emissions for the energy sector prepared for the period xxx-xxx elaborated".
		1.2	NAMA's portfolio in the power generation and end-use sectors		Full assessment of mitigation options in the energy sector is carried out and the portfolio of potential NAMAs is generated.	It is also unclear in defining the subsectors or how many NAMAs this portfolio would have. It does not seem relevant, since the amount of NAMA to be implemented is found under other indicators.	It does not clarify whether the options evaluated are the ones that will ultimately be in NAMA's portfolio.	You cannot do without knowing without a clear criterion.	You can't say, because there's no way to measure the ambition of what you want to achieve.	As stated, this indicator does not seem relevant.	It does not specify when, presumably it is within the duration of the project.	"Number of mitigation actions identified for each NAMA in the generation sectors connected/not connected to the electricity grid, including end uses (energy efficiency)". Mid-Term: 5Fine of project: 10

Strategy		Indicators		Midterm target	End project target	Comment	Smart Indicator Analysis					Recommendations/examples for the indicator
							specific	measurable	attainable	relevant	temporary	
		1.3	Implementation of at least two namas for non-grid renewable energy generation.		At least two fully designed and ongoing grid-connected renewable energy generation NAMAs, including the application of MRV mechanisms.	The statement of the indicator should be simpler, in addition the goal is repeated with the indicator. The target should indicate only implementation, as the design is a preliminary step and is foreseen in outcome 2.	middle. You need to specify the type of renewable energy you want.	Yes	Yes	Yes	Yes	"NAMA no. for grid-connected electricity generation, produced with NCRE implemented by energy-related entities". Medium Term: 1Final of project: 2
		1.4	Implementation of at least two energy efficiency NAMAs. (end use of energy).		At least two fully designed and ongoing energy efficiency (energy end-use) NAMAs, including the implementation of MRV mechanisms.	This is an indicator that does not appear in the prodoc and it should be included from the beginning. However the comments apply for indicator 1.3	Yes. You need to specify the subsector to be addressed, as there are many activities.	Yes	Yes	Yes	Yes	"Nº of NAMA of Energy Efficiency for selected sub-sectors implemented by the entities related to energy". Medium Term: xxxFinal of project: xxx
		1.5	Creating and operating MRV protocols		Protocols and procedures for NAMAs in the MRV energy sector fully designed and operational	Ambiguous statement, does not connect well to the goal and cannot be reliably measured or tracked.	Unspecific, because each NAMA will produce a certain protocol	No	It is possible, but there is no way of knowing whether the goal is ambitious or modest.	As stated, this indicator does not seem relevant.	Yes	"Number of MRV protocols adopted by entities implementing NAMA".

Strategy		Indicators		Midterm target	End project target	Comment	Smart Indicator Analysis					Recommendations/examples for the indicator
							specific	measurable	attainable	relevant	temporary	
		1.6	Generation of non-conventional renewable energy connected and not connected to the National Grid.		Connected to the grid: increase of 2.7% of participation of non-conventional renewable energy generation in the National Grid by 2018 (the official goal of the Government of Peru is 5%). Not connected to the grid - 100 MW of additional off-grid generation (50 MW PV, 50 MW other technology)	Ambiguous and confusing statement does not connect well to the goal of participation of NCRE in the country's energy system.	No	Yes	Yes	As stated, the goal of this indicator does not seem relevant.	Yes	% increase in power production with NCRE connected and not connected to the grid. Medium Term: Connected: 5% share of the national energy matrix. Not connected: increase in 100 MW of energy produced.
		1.7	Direct and indirect GHG emissions resulting from the project		MRV protocols are used to follow the following project objectives: Reduction of direct emissions of 962,000 tons of CO2 in 10 years Reduction of indirect emissions of 1,600,000 tons of CO2 in 10 years	The MRV should not be included, as it is already in other indicators (1.5). The indicator statement measures nothing and implies that the project will result in GHG emissions.	It is not known where these emissions would come from.	It is not known whether they are increasing or reducing emissions.	As it stands, it is not known whether or not the goal is ambitious.	It should be relevant if it were worded differently .	It indicates a horizon of 10 years.	"Amount of ghg emissions reduced (direct and indirect) by the NAMAs implemented by the project, projected over 10 years in the selected sub-sectors".
results												

Strategy		Indicators		Midterm target	End project target	Comment	Smart Indicator Analysis					Recommendations/examples for the indicator
							specific	measurable	attainable	relevant	temporary	
1	***Baseline of GHG emissions at national and regional reference level (BAU) for the established energy sector.***	1.1	A GHG inventory procedure validated by the relevant energy entities and consistent with infocarbono and the national energy balance.	No Goal	Procedure validated, approved and implemented in the first quarter of 2015.	The expected outcome is an understanding of GHG emissions and their projections, so inventories and BAU could be considered products. However, this result includes an institutional procedure that facilitates the collection of information for the preparation of inventories at the national and regional levels, rather than the inventories themselves.	It is not clear whether it refers to the technical methodology or the institutional management arrangements for drawing up the inventories.	What is measured?, an institutional procedure or a technical methodology?	Yes	Yes, in both cases	Yes	"No. of institutional procedures and established technical methodologies, for the preparation of GHG emission inventories at the national and regional levels"Medium-term goal: an institutional procedure and xxx methodologies developed. Final goal: institutional procedure and methodologies in functionalisation".
		1.2	A final report of a GHG inventory based on the approved procedure divided by sub-sector developed during the year 2017	No Goal	Updated inventory based on approved procedure with the latest available information and required years.	The indicator should not be mixed with the target (2017).	Yes	Yes	Yes	Yes	Yes	"In energy GHG inventory by sub-sector approved by the competent entities. Medium term: Final GHG Report: approval of the report by competent authorities".

Strategy		Indicators		Midterm target	End project target	Comment	Smart Indicator Analysis					Recommendations/examples for the indicator
							specific	measurable	attainable	relevant	temporary	
		1.3	BAU systematized and publicly available baseline reports for selected subsectors during 2014 and for a period not less than 2013 to 2021.	No Goal	BAU baselines approved and in accordance with the procedure and results of the PlanCC for December 2015.	There is a lack of precision, on whether it will be for all regions and apparently the BAU and the baselines refer to the year 2014, it would not be its elaboration in 2014. Tampoc the period 2013-2021 would not be consistent with the country's emission reduction policies.	Medium, it remains to be specified whether all subsectors refer only to the 4 NAMAs.	How many BAU and Baselines?	It is not known, apparently it would be a lot if it covers all regions of the country.	Yes	Yes	"BAU scenarios established for selected sub-sectors in xxx regions of the country and consistent with mitigation policies for the xxx-yyy period". Medium term: BAU and established baselinesFinal: BAU and approved and public baselines.
2	***Prioritized mitigation actions and identified MACCs (MACCs), documents for NAMAs in the selected subsectors designed, and 4 NAMAs prepared for implementation .***	2.1	1 sectoral MAC curve and 2 sub-sectoral MAC curves	No Goal	Format approved for January 2015.Report of the MAC curve in the sectors and subsectors inside and outside the energy network approved by the Project Management Committee.	In such cases, a medium-term goal should be stipulated and another at the end of the project.	Yes	Yes	Yes	Yes	Yes	In such cases, a medium-term goal should be stipulated and another at the end of the project.

Strategy		Indicators		Midterm target	End project target	Comment	Smart Indicator Analysis					Recommendations/examples for the indicator
							specific	measurable	attainable	relevant	temporary	
		2.2	Nama activity portfolio and tabs	No Goal	Portfolio of NAMA's activities at the conceptual design level for power generation and end-use.	This indicator is not in line with the explanation of component 2 of the prodoc, which indicates that in order to have the NAMA portfolio, a rapid selection methodology and a detailed methodology had to be developed.	Yes	Yes	Yes	Yes	Yes	"No. of NAMAs identified and prioritized according to rapid and detailed selection methodologies, in line with national mitigation priorities in the energy sector. Medium term: development of multi-criteria nama selection methodologies in consultation with key actorsFinal: 4 NAMA prioritized, with detailed design and in execution".
		2.3	Policy and financing instruments for the implementation of NAMA in two selected subsectors defined	No Goal	Specific set of policies and financial instruments defined to support in-grid and off-grid NAMAs and residential energy efficiency.	Very broad the scope and should be more defined subsectors (which are 3) and mitigation actions. In addition, their level of ambition (approved, proposed or in execution) should also be indicated.	Medium, fata define the subsectors.	It is not known how many these instruments will be.	It depends on the ambition of the goals	Yes.	Yes	"Number of instruments proposed to incentivize the implementation of NAMA with NCRE. Medium term: at least xxx financial and regulatory instruments identified. Final: at least xxxx instruments under review by the responsible entities".

Strategy		Indicators		Midterm target	End project target	Comment	Smart Indicator Analysis					Recommendations/examples for the indicator
							specific	measurable	attainable	relevant	temporary	
		2.4	3 formal training sessions per subsector, in relation to the design of mitigation programs.	No Goal	The training sessions developed by year 1, including the content and methodology of evaluation. Two annual training sessions (one per sub-sector) will be held for the duration of the project.	This could be taken as a product indicator, since the outcome indicator would be the measurement of nama's number developed by actors who use the new knowledge acquired.	Yes	Yes	Yes	Yes	Yes	"Number of key players in the energy sector participating in the development of NAMA, who use the new knowledge provided by the project. Medium term: at least 3 training sessions per subsector, with methodological contents on mitigation actions approved by the responsible entities. Final: 4 NAMAs elaborated and implemented according to the methodologies and techniques disseminated to the key actors."
		2.5	Detailed design of 4 NAMAs	No Goal	NAMAs concepts approved by the Project Steering Committee, based on a list of evaluated and prioritized mitigation actions; including the sources of funding containing the coordinated institutional arrangements, and ready to start the pilot phase.	The indicator does not seem to match the target, as "concept" could be interpreted as a "preliminary" design and not a complete one, which is what the indicator wants to measure. On the other hand, the PSC does not seem to be the most suitable body to approve these NAMAs, but should be the institutions responsible for the area, unless everyone is within the PSC. A clear case in this regard	middle. The 4 NAMAs are very broad in scope.	Yes	Yes	middle.	Yes	"NAMA number of the 3 energy sub-sectors with detailed design approved by the entities responsible for the sector in conjunction with the PSC".

Strategy		Indicators		Midterm target	End project target	Comment	Smart Indicator Analysis					Recommendations/examples for the indicator
							specific	measurable	attainable	relevant	temporary	
						is the NAMA for transport.						
3	***(i) Entities related to grid-connected renewable energy (all technologies excluding large hydropower); (ii) off-grid renewable energy sub-sectors and (iii) energy end-use related to energy efficiency that will contribute to achieving compliance with Peru's iNDC.***	3.1	Execution of NAMA activity #1 (off-grid renewable energy with photovoltaic panels)	No Goal	NAMA photovoltaic electrification is fully operational and supports the installation of 500,000 photovoltaic panels. The installed capacity is expected to be 50 MW. MRV mechanisms in full operation.	This indicator mixes the installation of panels with the MRV system found in result 4. In addition, what is the premium?: the 500K panels or the installed power?. This should be clarified on the inictor.	Yes	Yes	Medium, the goal had to be adjusted to 170,000 panels.	Yes	Yes	"Number of panels installed by the FISE during the execution of the project, equivalent to an installed capacity of 50MW". Medium term goal: xxx panels Final metal: 500,000 panels installed".

Strategy		Indicators		Midterm target	End project target	Comment	Smart Indicator Analysis					Recommendations/examples for the indicator
							specific	measurable	attainable	relevant	temporary	
		3.2	Implementation of the base of the Off-grid Payment System with photovoltaic systems.	No Goal	Mechanism established for the payment for the delivery of energy services of the photovoltaic system outside the network, based on the independent evaluation of compliance with the NAMA MRV protocol.	The relationship between the payment and the MRV is not clear, the latter being a mechanism to verify nama's emission reductions. It is not clear whether this payment system works for the electricity companies that install the panels or whether it is a system of payment of tariffs by the beneficiaries. According to what was explained to the consultant, this would be a payment system that users would make to cover the costs of the installation and operation of the panels.	middle. Establishing a mechanism is clear, but it cannot be interpreted who will make the payment.	Yes	Yes	It is not relevant in the context of monitoring GHG reductions by the installation and use of solar panels. It could be relevant to the FISE as an effort to recoup some of the investment in these systems.	Yes	"Payment mechanism for beneficiaries of the FISE, referring to the payment of the costs of the breads, their installation and operation, in implementation"
		3.3	Implementation of NAMA activity #2 (off-grid renewable energy)		NAMA out of network in full operation. Expecting a minimum installed capacity of 50 MW. MRV mechanisms in full operation.	This NAMA looks like a repeat of the No. 1 implemented by FISE. Apparently the idea was to also include kitchens and stoves delivered to households in the rural sector.	Yes, considering that it refers to the FISE programme.	Yes	Medium, the goal had to be adjusted to 170,000 panels.	No, as it stands, it is just a repeat of NAMA 1.	Yes	In this case it would be necessary to completely change the nama definition to otr relevant. On the other hand, the issue of stoves and stoves can be included in NAMA 1 and specify the target of how many stoves and stoves are to be changed and their estimated emission reductions.

Strategy		Indicators		Midterm target	End project target	Comment	Smart Indicator Analysis					Recommendations/examples for the indicator
							specific	measurable	attainable	relevant	temporary	
		3.4	Implementation of NAMA's #3 Activity (grid-connected renewable energy and/or energy efficiency)	No Goal	Nama activity in full operation. It should track the contribution of the increase in the share of renewable energy by 2.5% by the end of the project and 5% in 2020. MRV mechanisms in full operation.	Little specific indicator regarding what type of electricity production based on NCRE you want to perform (concentrated production in solar plants or it could also be net-meteering system). Nor does it seem advisable to mix energy efficiency with grid-connected energy production. The goal also doesn't seem clear and its jump between 2019 and 2020 by 100% doesn't seem to have much justification.	No	No	A 100% change in the target between one year and another does not seem reasonable.	Yes.	Yes	"Implementation of a regulatory mechanism that allows the production of electricity based on NCRE to connect the national grid under competitive conditions."
		3.5	Implementation of nama #4 activity (grid-connected renewable energy)	No Goal	Nama activity in full operation. It should track the contribution of the increase in the share of renewable energy by 2.5% by the end of the project and 5% in 2020. MRV mechanisms in full operation.	This NAMA looks like a repeat of No. 4. It would not be relevant to the project, so another NAMA should be defined instead.	No	No	A 100% change in the target between one year and another does not seem reasonable.	No	Yes	Leave this NAMA as 100% U.S." NAMA of energy efficiency implemented in the public and/or private sector".

Strategy		Indicators		Midterm target	End project target	Comment	Smart Indicator Analysis					Recommendations/examples for the indicator
							specific	measurable	attainable	relevant	temporary	
		3.6	Implementation of MRV protocols and monitoring of NAMA-related GHG emission reductions	No Goal	MRV protocols are used to follow the following project objectives:Reduction of direct emissions of 962,000 tons of CO2 in 10 years Reduction of indirect emissions of 1,600,000	This indicator is redundant with result 4. Apparently the main idea is to strengthen the institutional capcities and the relationship between the energy sector and the supervisory entities of the NAMA.	Yes	Yes	Yes	No	Yes	"Implemented an institutional coordination mechanism between the energy sector and nama supervisory entities."
4	***Precise mechanism for the measurement and accounting of actual GHG emission reductions from mitigation actions in the power generation and end-use sector.***	4.1	Mrv designed protocol	No Goal	MRV protocols for NAMAs in the energy sector designed and approved by the Steering Committee	This indicator is not in line with the narrative of component 4, which describes "various mechanisms" for the energy generation and end-use sectors. It also looks like a product indicator, although it could also be a result considering that there was no MRV protocol before.	No, because it is not just one mechanism, there are several, but it does not say how many.	Yes	Yes	Yes	Yes	"Number of MRV protocols designed to measure and account for reductions achieved in each NAMA and Mitigation action". Middle goal term: xxx mechanisms for xxx NAMA". Final: xxx MRV mechanisms implemented for the 4 NAMAs and their mitigation actions.
		4.2	Application of the energy sector of the MRV register	No Goal	Energy sector has MRV registration.	This is a result indicator that includes 4.1 and expresses the application of a product (the protocol). However, the goal is not consistent with the	No, because it is very broad, it should be reduced to NAMAs and not cover the energy sector.	No, because it doesn't specify which MRVs are for NAMAs.	Yes	Yes	Yes	"Number of MRV protocols applied to NAMAs and their associated mitigation actions". Meta Medium Term: xxx protocols applied for xxx NAMA. Final Metal: 100% of NAMAs and mitigation actions associated with MRV protocols in application."

Strategy		Indicators		Midterm target	End project target	Comment	Smart Indicator Analysis					Recommendations/examples for the indicator
							specific	measurable	attainable	relevant	temporary	
						application of the product.						
		4.3	The integration of climate change mitigation into the results-based budget programme of the Ministry of Economy and Finance.	No Goal	Climate change-related indicators incorporated into the results-based budget programme of the Ministry of Economy and Finance.	This indicator is completely general and does not specify what you want to measure, it does not define what an indicator of climate change is and the variables that you intend to measure. Nor is it explained whether these indicators are for the entire national budget or only for some programmes. According to the narrative of component 4 it would be for 3 programs within the budget.	No	No	maybe	No	No	"Number of Climate Change Indicators to monitor the effectiveness and GHG reductions resulting from nama activities, incorporated into budget programs supervised by the MEF for these NAMAs". Mid-term target: xxx budget programmes for xxx NAMA. Final metal: xxx budget programmes for xxx NAMA.
		4.4	Application of MRV procedures	No Goal	MRV procedures implemented in all energy-related NAMAs activities	It seems redundant indicator with 4.1 and 4.2 and also looks like a result statement. It is not clear whether it refers only to the energy sector or to all types of NAMA, nor does it indicate whether it is an umbrella system that brings together all the MRVs of the NAMAs in the	No	maybe	maybe	No, it seems redundant with others.	Yes	Eliminate or replace with one of institutional coordination as an example: "Number of mitigation actions coordinated and implemented between public actors, the private sector and civil society organizations"

Strategy		Indicators		Midterm target	End project target	Comment	Smart Indicator Analysis					Recommendations/examples for the indicator
							specific	measurable	attainable	relevant	temporary	
						energy sector or only those in the project. According to result 4.7, it would apparently be applied to all NAMAs at the national level, but it is not accurate. On the other hand, component 4 has a result of an institutional coordination mechanism between MINAM, MEF and MINEM but there is no indicator for this.						