



Terminal Evaluation of ‘the Climate Aggregation Platform (CAP)’ project.

Draft Report

Mohammad Alatoom

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Project title: The Climate Aggregation Platform for Developing Countries

UNDP PIMS ID number: 5749

Atlas Project ID/Award ID number: 00100219

GEF ID number: 9309

Evaluation timeframe: December 2022 – March 2023

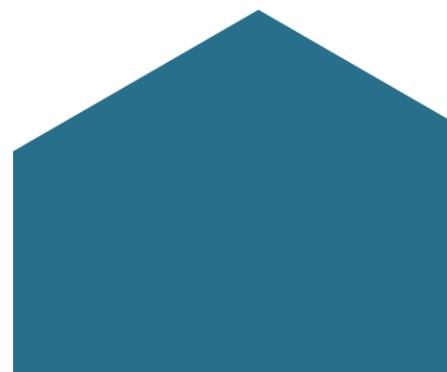
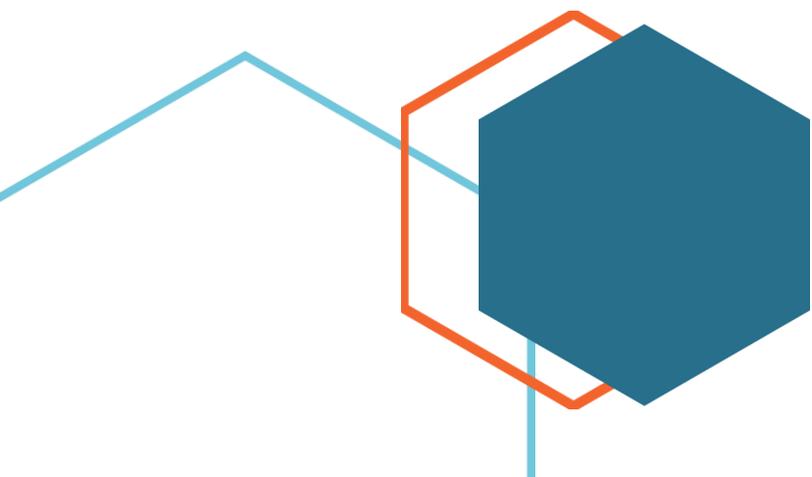
GEF focal area: Climate Change Mitigation

Executing agency: United Nations Development Programme (UNDP)

Project start date: July 2017, End date (before extension) July 2020, Extended to July 2023

GEF funding: USD 1,950,000 – Co-finance target: USD 85,350,000

The project aims to promote the scale-up of financial aggregation for small-scale, low-carbon energy assets in developing countries.



Terminal Evaluation of 'the Climate Aggregation Platform (CAP)' project

Acknowledgements

The Evaluator would like to express gratitude to all of the project teams, partners and stakeholders who participated in the evaluation. In particular to the project management unit for facilitating the evaluation activities, sharing information and data as well as the facilitating access to stakeholders for interviews.

Disclaimer

This report is the work of independent consultants, and doesn't necessarily represent the views, policy, or intentions of the executing agency (i.e UNDP), the Governments and project partners. The opinions and recommendations in the evaluation will be those of the Evaluators and do not necessarily reflect the position of UNDP, or any of the Programme stakeholders.

Table of Contents

Disclaimer	1
Acronyms and Abbreviations	3
Executive summary	4
Introduction	11
Purpose & scope	11
Methods	11
Ethical Considerations	12
Limitations	12
Structure of the Report	13
Project Description	13
Development context.....	13
Problems that CAP Project Seeks to Address.....	14
CAP Project Description and Strategy	14
Main stakeholders	15
Theory of change	15
Findings	16
Project Design/Formulation	16
Project Implementation	20
Project Results.....	28
Progress towards objective, expected outcomes and impacts (*)	28
Effectiveness (*)	33
Efficiency (*)	42
Sustainability:	44
Country ownership	46
Cross-cutting Issues	46
GEF Additionality	47
Catalytic Role / Replication Effect	47
Conclusions, Recommendations & Lessons	48
Annexes	54

Terminal Evaluation of 'the Climate Aggregation Platform (CAP)' project

Acronyms and Abbreviations

Acronym	Meaning	Acronym	Meaning
APR-PIR	Annual Project Report - Project Implementation Report	NC	National Coordinator
AWP	Annual Work Plan	NGO	Non-governmental organization
CAP	Climate Aggregation Platform	NPC	National Project Coordinator
CBI	Climate Bonds Initiative	PAYG	Pay as you go
CCM	Climate change mitigation	PB	Project Board
CCS	Climate Change Secretariat	PIMS	UNDP Project Information Management System
CDM	Clean Development Mechanism	PM	Project Manager
CO	UNDP Country Office	PMU	Project Management Unit
CO2	Carbon Dioxide	PPG	Project Preparatory Grant (GEF)
CP	Country Programme	PRF	Project Results Framework
DFI	Development Finance Institutions	PV	Photovoltaic
EE	Energy Efficiency	RE	Renewable energy
EOP	End of project	SE4ALL	Sustainable Energy for All
ER	Emission reduction	SMART	Specific, Measurable, Attainable, Relevant, Time-bound
ESCO	Energy Service Company	SSLC	Small scale low carbon
FACE	Fund authorization and certificate of expenditures	TBD	To be determined
FTE	Final term Evaluation	tCO2	Tonne of Carbon Dioxide
FY	Fiscal Year	TE	Terminal Evaluation
GDP	Gross Domestic Product	TOR	Terms of Reference
GEF	Global Environment Facility	UN	United Nations
GHG	Green House gas	UNDAF	UN Development Assistance Framework
IDB	Inter-American Development Bank	UNFCCC	UN Framework Convention on Climate Change
MTR	Mid Term Review	C	
M&E	Monitoring and Evaluation	UNDP	United Nations Development Programme

Terminal Evaluation of 'the Climate Aggregation Platform (CAP)' project

Executive summary

Project information table

Project Title:	The Climate Aggregation Platform for Developing Countries (the CAP project)			
GEF Project ID:	9309		<i>at endorsement (US\$)</i>	<i>at completion (US\$)</i>
UNDP Project ID:	5749	GEF financing:	US\$ 1,950,000	US\$ 1,950,000
Country:	Global	IA/EA own:	USD 150,000	121,217
Region:	Global	Government:	US\$ 00	00
Focal Area:	Climate Change Mitigation	Other:	US\$ 85,200,000	US\$ 200,000
FA Objectives, (OP/SP):	CCM1 for GEF 6: Promote Innovation, Technology Transfer, and Supportive Policies and Strategies	Total co-financing:	US\$ 85,350,000	US\$ 321,217
Executing Agency:	UNDP	Total Project Cost:	US\$ 87,300,000	US\$ 2,271,217
Other Partners involved:	Climate Bonds Initiative (CBI)	ProDoc Signature (date project began):		18 July 2017
		(Operational) Closing Date:	Proposed: 18 July 2020	Actual: July 2023

Project Description

The [Climate Aggregation Platform \(CAP\)](#) is a Global Environment Facility (GEF)-funded project implemented by UNDP's Bureau for Policy and Programme Support (BPPS), Nature, Climate and Energy Unit using a Direct Implementation Modality (DIM). UNDP, in partnership with the Climate Bonds Initiative seeks to promote the scale-up of financial aggregation for small-scale, low-carbon energy assets in developing countries.

The CAP aims to advance and raise awareness for innovative solutions to market barriers for financial aggregation – with the goal to increase access to low-cost financing for low-carbon energy. In so doing, the project can contribute to improving the lives of people in developing countries, bringing about affordable, reliable, and clean energy. The CAP promotes the scale-up of financial aggregation for small-scale, low-carbon energy assets in developing countries. The project aims to help build in country pipelines of high-quality, standardised low-carbon energy assets and to develop new low-cost sources of financing, building awareness and trust with investors in this new asset class.

The CAP Project is seeking to scale up the volume of small-scale low carbon investments in developing countries through the removal of barriers to financial aggregation, a process where multiple assets (in the form of cash flows) are bundled to receive financing or refinancing. The CAP Project was designed to support development of financial aggregation transactions in developing countries by overcoming of a range of barriers including lack of credit information on end-users, weak legal and regulatory standards (notably for underwriting of securities), low level of awareness amongst local commercial banks in developing countries, lack of investor awareness and appetite for these security classes.

Terminal Evaluation of 'the Climate Aggregation Platform (CAP)' project

The objective of the CAP Project is to “***promote the scale up of financial aggregation for small-scale, low carbon energy assets in developing countries***”. To achieve this objective, the Project was to focus on achieving 3 outcomes:

- Outcome 1: Increased awareness, exchange of information and engagement in financial aggregation for small-scale, low carbon energy activities in developing countries;
- Outcome 2: Financial closure of 3 financial aggregation transactions for small-scale, low carbon energy activities in developing countries;
- Outcome 3: The market architecture and environment for replication and scale up of financial aggregation transactions for small-scale, low carbon energy is enhanced in 3 developing countries.

Evaluation Ratings Table

Table 1: Evaluation rating table

Monitoring & Evaluation (M&E)	Rating ¹
M&E design at entry	Satisfactory (S)
M&E Plan Implementation	Moderately Satisfactory (MS)
Overall Quality of M&E	Satisfactory (S)
Implementation & Execution	Rating
Quality of UNDP Implementation/Oversight	Satisfactory (S)
Quality of Implementing Partner Execution	Moderately Satisfactory (MS)
Overall quality of Implementation/Execution	Satisfactory (S)
Assessment of Outcomes	Rating
Relevance	Satisfactory (S)
Effectiveness	Moderately Unsatisfactory (MU)
Efficiency	Moderately Satisfactory (MS)
Overall Project Outcome Rating	Moderately Unsatisfactory (MU)
Sustainability	Rating
Financial resources	Moderately Unlikely (MU)
Socio-political/economic	Likely (L)
Institutional framework and governance	Moderately Likely (ML)
Environmental	Likely (L)
Overall Likelihood of Sustainability	Moderately Unlikely (MU)

¹ Outcomes, Effectiveness, Efficiency, M&E, I&E Execution, Relevance are rated on a 6-point rating scale: 6 = Highly Satisfactory (HS), 5 = Satisfactory (S), 4 = Moderately Satisfactory (MS), 3 = Moderately Unsatisfactory (MU), 2 = Unsatisfactory (U), 1 = Highly Unsatisfactory (HU). Sustainability is rated on a 4-point scale: 4 = Likely (L), 3 = Moderately Likely (ML), 2 = Moderately Unlikely (MU), 1 = Unlikely (U)

Terminal Evaluation of 'the Climate Aggregation Platform (CAP)' project

Concise summary of the findings

Project results: The overall objective of the CAP is to “promote the scale-up of financial aggregation for small-scale, low-carbon energy assets in developing countries”. Since all objective-level indicators (financial value of investments, GHG emissions reduction and number of beneficiaries) depend on the completion of showcase transactions which have not materialized yet, there is no progress at this stage towards the objective-level EOP targets, and the overall objective is therefore off track. Despite significant progress in the last two years of the project time, it is unlikely this status of the objective is going to change significantly in the short term.

Studies conducted by the project revealed that the financial aggregation market is still at a very nascent stage in developing countries (including in East Africa, the region of interest for the CAP’s in-country activities) and still requires upstream work to be conducted to address barriers at the design stage before showcase transactions can effectively materialize such as regulatory frameworks reform at the country level. This prompted the project to adopt a minor amendment to the project objective and focus on supporting innovative structures and models (which may later lead to showcase transactions) instead of supporting showcase transactions directly, given the immaturity of the market. In total 46 submissions were received for the innovation challenge, with very diverse and interesting innovations, and targeting different energy sub-sectors and countries in East Africa. And agreements have been signed with the 7 awardees. Each solution involves a different approach to financial aggregation to help unlock new sources of financing for the clean energy sector, including climate finance.

Based on the fact that no showcase transactions achieved so far, and therefore associated benefits at the objective level didn’t materialize, **progress towards objective, expected outcomes and impacts is rated Moderately Unsatisfactory (MU).**

The CAP implemented several awareness activities including the development of the CAP-website which comprises a “CAP Knowledge Library”, a one-stop-shop for key publications on innovative financing mechanisms for small-scale clean energy. This includes publications on financial aggregation, securitization, clean energy finance, climate finance, green bonds, investment data, market data, toolkits, RECS / DRECs / PRECs, and PAYGO – A list of over 50 resources was curated by the CAP Project Team.

On knowledge products, the joint UNDP-CBI flagship report “Linking Global Finance to Small-Scale Clean Energy - Financial Aggregation for Distributed Renewable Energy in Developing Countries” was published in 2022 and disseminated through a far-reaching communication campaign. This report analyses potential links between global finance to small-scale clean energy projects in developing countries. The analysis identifies key barriers, market enablers, case studies, insights, and recommendations to wider adoption of financial aggregation as a means to enable capital flows at scale toward small-scale low carbon energy initiatives.

Other knowledge products that are currently being developed/finalized include Market Assessment Framework, User Guide and Guide to the Indicators; Market Assessments for Rwanda, Uganda; CAP Action Plans for Rwanda and Uganda; and up to 7 Feasibility Studies for supported Innovative Financial Aggregation Structures via the CAP Financial Innovation Challenge. The CAP identified and established engagements with relevant task forces and global working groups related to financial aggregation of low carbon small scale assets. This includes the ongoing work with the D-REC initiative, with whom an MoU was signed, to develop a pilot project in Uganda.

The CAP Project is finalizing the “CAP Financial Innovation Challenge” (CAP FIC) to promote Innovative Financial Aggregation Structure or Model (mechanisms, instruments, processes, tools, business, and financing models)

Terminal Evaluation of 'the Climate Aggregation Platform (CAP)' project

documented in the form of a Feasibility Study. The CAP will award up to US\$ 40,000 per selected project – US\$ 280,000 will be available to support up to 7 projects. Considering the above and based on the fact the EOP targets have largely not been met, **effectiveness is rated Moderately Unsatisfactory (MU)**.

The CAP project design: The conceptual design of the CAP is relevant and appropriate in principle, however, the detailed design of the CAP project comprises major deficiencies including: 1) overly ambitious targets to be achieved in 3 years timeframe, specifically in terms of amount of USD value of financially closed CAP showcase transactions, and subsequently the co-financing and GHGs emission reductions targets; and 2) the accuracy of the assumptions that underpin the project design especially in terms of maturity of the small scale low carbon market, particularly in targeted countries, and stakeholders interest to participate in the CAP activities, especially at the local level.

CAP relevance: Despite the nascent nature of financial aggregation markets, the financial aggregation market is holding great potential, promising, and evolving sector, which makes CAP strategic relevance to the market needs to increase over time. Also, the CAP is aligned with the SDG7 by helping to unlock capital resources for small-scale, low-carbon energy assets in developing countries and invest in the potential to lift millions of people out of energy poverty, create millions of jobs, help tackle and build resilience to climate change, and contribute to the achievement of the SDGs. **Based on this, the relevance of the project is rated Satisfactory (S)**.

Adaptive management: The CAP project has been going through a number of operational hiccups and structural challenges that required immediate adaptive management measures to be taken effectively. However, in many cases, it has taken the project management so long to respond to the emerging challenges, for example, with differing views within the entire CAP Project team that without an appropriate decision-making apparatus, the management arrangements did not provide any executive powers within the team to render decisions for the CAP Project, even on a pilot basis. This has proven to be a primary cause for the lack of progress of the CAP Project and a major structural challenge particularly prior to the project re-structuring.

The CAP implemented important adaptive management measures including the project re-structuring, revamping the operational modality, re-organising the partnership arrangements and creating effective decision-making process. In addition to implementing the innovation challenge as a way to overcome the challenges with UNDP's procurement and partnerships modalities in engaging with the private sector. However, there are areas where the CAP project could have been more effective in applying adaptive management measure, specifically by reviewing the key elements of the project design (mainly assumption and targets), and also expediting solutions for the substantial delays in recruiting national coordinators – for example, recruiting a national coordinator with less technical role and more of coordination role whilst sourcing technical expertise internationally.

Project management: The effectiveness of the CAP in-country offers varied, in Uganda, the CAP's engagement with the National Renewable Energy Platform (NREP) is a contributing factor for a sustainable ownership of CAP's product at the country level, and the fact that CAP agenda is embedded into an existing platform (i.e NERP) rather than a standalone working group adds an extra level of sustainability and ownership. It wasn't the same case in Rwanda where no working group established for CAP nor an existing platform was used to incubate the CAP activities until this point, which meant limited engagement and ownership at the country level.

The design of M&E framework was found adequate and follows the standard M&E template for projects of this size and complexity. The M&E implementation included re-activation of the project board in 2019, regular

Terminal Evaluation of 'the Climate Aggregation Platform (CAP)' project

reporting and tracking of project results and risks and the MTR was delivered in critical time after the project was put on hold for two years with major disagreements among UNDP team and with partners, in this sense, the MTR was instrumental to help resetting the CAP project, and therefore **the overall assessment of the M&E is Satisfactory (S).**

UNDP implemented the project using the direct implementation modality, where UNDP is responsible for the overall implementation and delivery of the project and ensures that the project objectives are met. UNDP performed quality assurance, oversight services, audit, and risk monitoring and management in line with the UNDP rules and regulations. Also, UNDP organized procurement events, expert recruitment, and financial management in line with the UNDP rules and regulations. Therefore, the **Overall Quality of Implementation/Oversight and Execution is rated Satisfactory (S).**

Sustainability: The CAP institutional set up beyond project end date is not clearly defined, documented, and communicated to the board. The CAP exit strategy is essentially based on embedding the CAP offering into UNDP's new Sustainable Energy Hub (SEH). The SEH could be a gateway for the CAP to expand access to the Sustainable Energy Hub's financial mechanisms or other UNDP initiatives at the country, regional or global level. Although sounds like a strategic option for the CAP, currently the details of the how this integration could happen and how CAP operations are going to be maintained and funded remain undefined.

The intent is that the CAP, based on the prodoc, is to gain further funding and operate indefinitely, past the initial funding provided by this project. The activities set out in the project document are envisioned as an initial phase of the CAP, with the GEF providing seed-funding. Subsequent phases, for example, could include the addition of further in-country initiatives beyond the initial activities funded by the project. The architecture of the CAP is meant to be scaled in this way.

To date the CAP didn't have additional funding lined up to support CAP future activities. The CAP management has been focussed on delivering the project activities in attempt to make up for the delays witnessed at the beginning. And project management resources have been totally dedicated to overcome the operational and structural challenges, with no resource mobilisation outcomes achieved for the future. This establishes an unanswered question as to how the CAP operations are going to be covered beyond the GEF seed funding. **The overall Likelihood of Sustainability is Moderately Unlikely (MU).**

Recommendations summary table

Table 2: recommendations table

#	TE Recommendation	Entity Responsible	Timeframe
1	Develop and implement a comprehensive exit strategy for the CAP. The exit strategy should provide a transformational vision for the CAP to move from a project-based approach (pilot mode) into a more strategic ongoing offer for UNDP . Such CAP strategy should elaborate on transition to a stage beyond the identification of the market barriers and work to barriers removal stage. The strategy should focus on 1) defining the new institutional and governance settings after the GEF-funded phase, this should include defining where the CAP is going to be structured in UNDP, how CAP's offer is going to embedded in the Sustainable Energy Hub (SEH), and what is the process for identifying and supporting the climate aggregation opportunities in Uganda and Rwanda and beyond; 2) a 3-year work plan defining key activities that	Project management	June 2023

Terminal Evaluation of 'the Climate Aggregation Platform (CAP)' project

	the CAP would address; 3) resource mobilisation plan for technical support activities (barriers identification and removal); and 4) a budgeted human resource plan.		
2	Expand and strengthen strategic partnerships spectrum for CAP. In order for the CAP to meet all of its objectives (and possibly beyond the duration of the project under evaluation), it needs to broaden its network of partners, especially given the fact that financial aggregation may need to be linked with other de-risking mechanisms such as concessional financing, guarantees, subsidies, or tax-exemptions, to name a few ² , and this requires strategic partnerships to be established with different financing organisation, including banks and banking agencies within UN system (e.g UNCDF) to facilitate effective engagement with the private sector.	Project management	Ongoing
3	Undertake research to map the various financing partners, tools, and instruments and identify entry points for the CAP to inform short term and medium priorities for the development of financial aggregation. In the first instance, a deeper dive is required into why DFIs, whose financing mandates are typically broad, aren't providing more upstream grants and equity capital to crowd in private debt ³ . This could also include detailed mapping of existing initiatives related to the finance and identify entry points for the CAP.	Project management	July 2023
4	Establish a CAP advisory board to replace the existing GEF-project board to serve as a guiding platform for future CAP interventions, identify opportunities for CAP and strengthen CAP partnerships strategy. The new advisory board could be expanded beyond the boundaries set by the GEF project and include international partners that are likely to contribute actively to the CAP activities.	Project management	July 2023
5	Establish a global Community of Practice (CoP) for the development of financial aggregation through maintaining engagement with the global network beyond the project timeframe. The network would have a critical role in achieving the CAP objective (i.e promoting aggregation of small-scale and low-carbon investments), and this network can continue to serve as a global 'community of practice' platform for climate aggregation under the CAP leadership. The engagement process needs to be supported by a clear communication strategy and regular engagement (via webinars), and the role of the CoP may be extended beyond financial aggregation, to look at other innovative finance as well as the more general barriers that need to be addressed to tackle the energy access financing gap.	Project management	July 2023
6	Improve the design of future GEF projects, UNDP should ensure that the project designers undertake a careful assessment of the potential provision of global environmental benefits from projects at this scale within short period of time. This includes 1) the need to be realistic in setting project indicators and targets at the level of the project objective in terms of what a GEF project can actually achieve during the typical relatively short implementation period, 2) validating key assumptions in the project theory of change (the maturity of the market in case of the CAP), and 3) stronger implementation arrangements with clarity on roles and responsibilities with implementing partners and stakeholder particularly at the local level (in case of a global project).	RTA	Ongoing
7	UNDP should ensure that the Mid-Term Review of GEF projects includes a careful assessment of the targets, and, wherever necessary, proposes the adjustment of the	RTA	Ongoing

² Linking Global Finance to Small-Scale Clean Energy - Financial Aggregation for Distributed Renewable Energy in Developing Countries

³ This is also recommended by the UNDP-CBI report on Linking Global Finance to Small-Scale Clean Energy - Financial Aggregation for Distributed Renewable Energy in Developing Countries

Terminal Evaluation of 'the Climate Aggregation Platform (CAP)' project

	targets to realistic and achievable values in line with the GEF Guidelines on The Project and Program Cycle Policy ⁴ .. Although the MTR identified some corrective actions in the indicators' wordings, it did not propose adjustment to more realistic targets.		
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⁴ See 'Major Amendment' section - page 55 of the GEF Guidelines on The Project and Program Cycle Policy. Available [here](#).

Introduction

Purpose & scope

The Terminal Evaluation (TE) assessed the achievement of project results against what was expected to be achieved and drew lessons that can both improve the sustainability of benefits from this project, and aid in the overall enhancement of UNDP programming. The TE report promotes accountability and transparency and assesses the extent of project accomplishments.

The TE assessed project performance against expectations set out in the project's Logical Framework/Results Framework and results according to the criteria outlined in the [Guidance for Conducting Terminal Evaluations of UNDP-Supported, GEF-Financed Projects](#)⁵

The TE provides evidence-based information that is credible, reliable and useful and comply with the UNDP/GEF Evaluation Guidelines. The TE was undertaken in line with UNEG principles concerning independence, credibility, utility, impartiality, transparency, disclosure, ethical, participation, competencies and capacities.

The evaluation process has been independent of UNDP and project partners. The opinions and recommendations in the evaluation are those of the Evaluator and do not necessarily reflect the position of any stakeholders.

The TE was carried out between December 2022 and March 2023 with online engagement with project stakeholders and partners. For this TE, evidence was gathered by reviewing documents, interviewing key selected stakeholders and from other ad hoc observations.

Mixed methods were used for the TE to generate mix of qualitative and quantitative data. The use of mixed methods had the advantage of supporting data triangulation across multiple sources, which created the potential for increased data accuracy and credibility to inform the reliability of the evaluation results.

Methods

Data collection methods

To strengthen the robustness of the evaluation evidence, a mix qualitative-quantitative approach was used to best describe project results based on the on the results framework as outlined in the project document. The evaluation used methods of document review and interviews for data collection to obtain answer all of the evaluation questions outlined in the TOR. The evaluation had two levels of data collection and validation of information:

- A desk review of project documentation
- Independent data collected by the evaluators through interviews with key stakeholders

An evaluation matrix was developed as a base for gathering of qualitative inputs for analysis. The evaluation matrix defined the objective for gathering non-biased, valid, reliable, precise, and useful data with integrity to answer the evaluation questions.

Engaging stakeholders has been critical for the success of the evaluation. The project involved multi-stakeholders and teams in different capacities and the TE engaged with various stakeholders to cover different perspectives taking into account the principle of gender responsive. Gender responsiveness has been integrated throughout

⁵ UNDP-Supported, GEF-Financed Guidance for conducting terminal evaluations, 2020. Available [here](#).

Terminal Evaluation of 'the Climate Aggregation Platform (CAP)' project

the evaluation process including gender balance during the engagement with stakeholders, assessing the gender integration in the project design and delivery, and ensuring that data collection and analysis are gender-sensitive. Throughout the evaluation process, the main stakeholders have been engaged and interviewed using semi-structured interview⁶ method. Interviews relied on a targeted and self-selecting sampling strategy to include a diversity and balance of perspectives from each stakeholder category.

Data analysis methods

Data analysis was based on observed facts, evidence, and data. Findings are specific, concise, and supported by quantitative and/or qualitative information that is reliable, valid and generalizable.

The data analysis method involved 1) descriptive analysis to understand and describe its main components, including related activities; partnerships; modalities of delivery; etc. 2) Content analysis of relevant documents and the literature conducted to identify common trends and themes, and patterns for each of the key evaluation issues (as the main units of analysis), and 3) thematic analysis of responses collected from semi-structured interviews and observations.

Ethical Considerations

The TE consultant was held to the highest ethical standards and was required to sign a code of conduct upon acceptance of the assignment. This evaluation was conducted in accordance with the principles outlined in the UNEG 'Ethical Guidelines for Evaluation'⁷. The evaluator ensured to safeguard the rights and confidentiality of information providers, interviewees, and stakeholders through measures to ensure compliance with legal and other relevant codes governing collection of data and reporting on data. The evaluator also ensured security of collected information before and after the evaluation and protocols to ensure anonymity and confidentiality of sources of information where that is expected. The information knowledge and data gathered in the evaluation process has been solely used for the evaluation and will not be used for other purposes without the express authorization of UNDP and partners.

Limitations

As a global project, the CAP involved multiple stakeholders across different countries around the world. The project management is remotely dispersed where the project is based at UNDP-HQ in New York, the project management team is dispersed between Germany (where the project manager is based), Ethiopia (where the project assistant is based and Uganda where the national coordinator is based). The geographical dispersion is also extended to the partners engaged in the project where CBI is based in the UK and consultants were commissioned from South Africa and other countries around the world. This meant that online engagement for this evaluation would be the most effective approach to be able to engage with all of the stakeholders, notwithstanding the difficulty to adapt to time zone difference to be able to engage with all stakeholders.

⁶ A semi-structured interview is a method of research used most often in the social sciences. While a structured interview has a rigorous set of questions which does not allow one to divert, a semi-structured interview is open, allowing new ideas to be brought up during the interview as a result of what the interviewee says. The interviewer in a semi-structured interview generally has a framework of themes to be explored.

⁷ UNEG Ethical Guidelines for Evaluation, 2020, available [here](#).

Terminal Evaluation of 'the Climate Aggregation Platform (CAP)' project

The extent to which the project is achieving impact or progressing towards the achievement of impact will require some time before becoming manifest. The level of maturity of the targeted market is a limiting factor to be able to appreciate impact-level changes that are attributable to the CAP activities, especially after considering the number of factors that affect the financing aggregation market beside the CAP.

Structure of the Report

The TE draft report follows the format suggested by the UNDP-GEF TE guidelines, with a description of the methodology, a description of the project and findings organized around: i) Project Design/Formulation; ii) Project Implementation; iii) Project Results and Impact. Conclusions, Recommendations and Lessons Learnt complete the report. Consistently with requirements, certain aspects of the Project are rated, according to the rating scale of the Guidelines. Co-financing information is presented in the chapter under financial management; and the updated Scorecard is included in Annex I. Comments addressed have been documented in an Audit Trail, prepared as a separate annex to the TE Report.

Project Description

Development context

In meeting their obligations to the Paris Agreement to limit the global warming to well below 2°C and pursue efforts to limit it to 1.5°C, developing countries are experiencing challenges in scaling up their investments in low carbon technologies. In the face of increasing energy demand in these countries, almost all countries are experiencing shortfalls in the context of energy access. This includes numerous countries where households and businesses do not have sufficient electricity for lighting at night. This lack of access to low carbon energy disproportionately affects women, adversely impacting economic growth of developing countries.

To mitigate these circumstances, financing for low carbon energy generation needs to be scaled up from its current levels. The Sustainable Energy for All (SE4ALL) estimates that over US\$660 billion annually is the investment required up to 2030 in developing countries to meet the objectives of SE4ALL. In 2012, the investment of US\$141.9 billion is the baseline investment into increasing energy access, renewable energy, and energy efficiency; this translates into an annual financing gap of US\$518.1 billion in comparison to the required 2030 investment⁸.

Exacerbating this financing gap in most developing countries is the limited ability of local financing institutions to access additional financing to scale up the level of these investments. Notwithstanding, there are currently large volumes of consumer driven investments into distributed renewable energy generation and energy efficiency measures. The success of these investments creates conditions to develop new aggregative models of financing small-scale low carbon energy assets. The CAP Project seeks to develop these new models of financing.

Financing costs are a key entry point for policymakers in developing countries. The CAP Project is important in the context of strategic shifts at UNDP and the UN as a whole, particularly with regard to orientation towards connecting financing to sustainable development goals.

⁸ World Bank (2015): SE4ALL Global Tracking Framework Report

Terminal Evaluation of 'the Climate Aggregation Platform (CAP)' project

Problems that CAP Project Seeks to Address

The CAP Project is seeking to scale up the volume of small-scale low carbon investments in developing countries through the removal of barriers to financial aggregation, a process where multiple assets (in the form of cash flows) are bundled to receive financing or refinancing. The CAP Project was designed to support development of financial aggregation transactions in developing countries by overcoming of a range of barriers including:

- A lack of credit information on the end-users;
- Weak legal and regulatory standards including definitions of default, legal enforcement of contracts, and priorities for payouts;
- Weak standards for underwriting of securities;
- Low level of awareness amongst local commercial banks in developing countries of preparing financial aggregation transactions; and
- Lack of investor awareness and appetite for these security classes from developing countries.

CAP Project Description and Strategy

The objective of the CAP Project is to “promote scale up of financial aggregation for small-scale, low carbon energy assets in developing countries”. Achievement of this objective has required the Project to focus on 3 components designed to generate outputs that contribute to the realization of the following outcomes:

- Outcome 1: Increased awareness, exchange of information and engagement in financial aggregation for small-scale, low carbon energy activities in developing countries;
- Outcome 2: Financial closure of 3 financial aggregation transactions for small-scale, low carbon energy activities in developing countries; and
- Outcome 3: The market architecture and environment for replication and scale up of financial aggregation transactions for small-scale, low carbon energy is enhanced in 3 developing countries (changed to two countries after the restructuring).

The CAP is a flagship initiative of the Sustainable Energy Hub to support the structuring and deployment of innovative business models and financial mechanisms to accelerate energy access and the clean energy transition.

The CAP aims to advance and raise awareness for innovative solutions to market barriers for financial aggregation – with the goal to increase access to low-cost financing for low-carbon energy. In so doing, the project can contribute to improving the lives of people in developing countries, bringing about affordable, reliable and clean energy.

Within the small-scale, low-carbon energy universe, the CAP is agnostic with regard to technology sectors (e.g., solar PV, energy efficiency, electric mobility) and business models. In practice, the CAP may initially support certain technologies and business models in particular geographic markets, for example PAYGO solar, due to their relatively advanced or promising qualities.

The CAP’s activities and value proposition are formulated in terms of a global offer and an in-country offer:

- *Global offer*: global awareness raising, knowledge management and working group (changed to global network after the restructuring)
- *In-country offer*: three in-country initiatives, each centered around (i) a showcase transaction, likely in partnership with a development bank and/or the private sector, and (ii) tailored market development activities from a menu of services, such as standardization efforts and addressing tax/regulatory barriers.

Terminal Evaluation of 'the Climate Aggregation Platform (CAP)' project

The project's central approach to achieving change - embedded throughout its design - is a barrier-removal approach. The project seeks to do this in different ways: addressing information barriers through the project's global activities; addressing first-mover barriers through its emphasis on first-of-a-kind transactions; and then, within countries, targeting specific barriers to scaling-up via tailored market development activities.

Main stakeholders

The CAP will seek to systematically engage and partner with financial aggregation stakeholders. The typical stakeholders in a financial aggregation transaction that the CAP engages with are along five main stakeholder groups - public sector, financial market and advisory, investors, power industry and media - each of which is then composed of multiple stakeholder types. The CAP seeks to engage with these stakeholder groups in both its global and in-country activities.

To achieve the specific CAP Project objective of "promoting scale up of financial aggregation for small-scale, low carbon energy assets in developing countries", the CAP Project was to engage and partner with a wide range of stakeholders in financial aggregation during implementation. The ProDoc does not provide specific stakeholders but does provide stakeholder groups that the CAP Project intends to engage including:

- Stakeholders involved in financial markets and advisory services. This would include legal firms,
- credit rating agencies, and investment banks;
- Institutional investors and commercial banks;
- Public sector stakeholders including national governments, development banks and international organizations;
- Low carbon energy companies and software companies;
- Financial and energy media.

Theory of change

The project's theory of change, drawing from UNDP's 2013 report, De-risking Renewable Energy Investment⁹, posits that, while technology costs for low-carbon energy have seen dramatic decreases in recent years, financing costs for low-carbon energy in developing countries typically remain high. These high financing costs disproportionately penalize low-carbon energy due to low-carbon energy's high capital intensity. Data from the de-risking report show financing costs dominate the life cycle costs of low-carbon energy in developing countries (here representing 61% of the life cycle costs of utility-scale wind energy). For policymakers, the implication of this is that a key opportunity is to seek to lower these high financing costs. By lowering financing costs, life-cycle costs will come down, making low-carbon energy more competitive with conventional energy. This can divert private sector investment flows to low-carbon energy. With lower financing costs, the end result is that developing country citizens can benefit from more affordable, reliable and clean energy.

⁹ UNDP (2013): De-risking Renewable Energy Investment

Findings

Project Design/Formulation

The conceptual design of the CAP is relevant and appropriate in principle, however, the detailed design of the CAP project comprises major deficiencies including: 1) overly ambitious targets to be achieved in 3 years timeframe, specifically in terms of amount of USD value of financially closed CAP showcase transactions, co-financing and GHGs emission reductions from CAP; and 2) the accuracy of the assumptions that underpin the project design especially in terms of maturity of the small scale low carbon market, particularly in targeted countries, and stakeholders interest to participate in the CAP activities, especially at the local level.

Results Framework Analysis: project logic and strategy, indicators

This section provides a critical assessment of the Project Results Framework (PRF) in terms of clarity, feasibility and logical sequence of the project outcomes/outputs and their links to the project objective. It also examines the specific indicators and their target values in terms of the SMART¹⁰ criteria.

The objective level indicators and targets meet four out of five of the "SMART" criteria, the objective- level targets in specific are not 'achievable' and overly ambitious within the project timeframe and resources, for example the 'USD 30 million of financially closed CAP showcase transactions' target is underpinning an assumption that this stage of the transaction could be attained with three years. The prodoc didn't establish how CAP could contribute with financial assistance to the transaction cost within existing UNDP's POPP modalities.

Indicators provide a clear description of the intended target with an economy of words. The simplicity of the indicators provide clarity to the PMU in terms of the activities to be monitored and targets to be reached. However, here are few comments on the indicators:

- The indicator of 'survey scores' for awareness raising comprises few deficiencies: 1) it is designed to measure stakeholders' satisfaction (the target is 75% of stakeholders state 'satisfied' or 'very satisfied'). Measuring awareness outcomes based on the level of satisfaction not ideal and doesn't necessarily provide robust evidence on the effectiveness of awareness, alternatively, the indicator could have been 'survey score' to measure change in the level of understanding and capacity in financial aggregation for small-scale, low-carbon energy activities (self-reported via surveys), and 2) the wording of the baseline for this indicator is not consistent with the indicator itself and its target, the baseline is '0 CAP awareness raising activities' though the indicator is a survey score not a number. Ideally, the baseline would have been established via a survey during the inception phase, or at minimum left at TBD until the first engagement with stakeholders take place.
- Similarly, the baseline of the 'Survey score conveying stakeholders' assessment of CAP's global knowledge products' reads as '0 CAP global knowledge products' and that is not consistent with the indicator and its target.
- Under outcome 3, the 'CAP national working groups' indicator, the target was '4 well-attended meetings' is activity level indicator and doesn't provide insights on the outcomes of those meetings.
- All defined targets are set to be achieved by the end of the project with no guidance of the sequencing of CAP project activities in the ProDoc. This was to be defined during the Inception Phase with more specifics to each output, identification of countries where CAP was to have national working groups, and the technology sector with financial aggregation transactions that the Project was supporting. The absence of these specific details was a contributor to create disagreements among project teams and partners and therefore poor progress of the CAP Project during its first 15 months.

¹⁰ SMART stands for Specific, Measurable, Attainable, Relevant, Time-bound.

Terminal Evaluation of 'the Climate Aggregation Platform (CAP)' project

- The MTR identified a few inconsistencies and discrepancies in the wording of some parts of the PRF, for example the target for Outcome 2, which refers to 4 showcase transactions, is not aligned to other parts of the ProDoc which mentions only 3 in-country initiatives, this turns out to be a typo and has been fixed in the project addendum.
- The rest of the PRF seems to be straightforward and clearly designed with measurable targets with a proper language has been used to describe the outcomes and Project objective. None of the described outcomes and objective of the Project can be confused with an output.
- Gender-based data disaggregation is only considered in the indicator related to number of beneficiaries (impact indicator #3). Gender-data disaggregation could have been also considered for other indicators where direct engagement with stakeholders is measured such awareness raising.

The CAP Project is unique in that it deals with financial products and pursues private financing despite UNDP not being a bank. The design of the CAP Project in Component 1 envisaged raising awareness of financial aggregation transactions in developing countries involving small-scale low carbon assets. Component 2 envisaged CAP support for showcase transactions in financial aggregation for low carbon in 2 to 3 developing countries. This was to involve Project support in (i) providing transaction cost coverage up to US\$300,000, and (ii) working to removing potential sell side barriers such as developing consumer credit profiles in developing countries, strengthening legal and regulatory framework, and setting up appropriate SPV structures for the issuance of bonds. The success of showcase transactions in Component 2 was to be used for horizontal replication of financial aggregation. Component 3 envisaged national working groups on the ground in developing countries developing market assessments, strategies, and action plans, under the strategic guidance of national coordinators recruited by the CAP Project.

Assumptions and Risks

Identification of risks enables the implementing partners to recognize and address challenges that may limit the ability of the project to achieve the planned performance outcomes.

A preliminary risk analysis was conducted at the Project Identification Form (PIF) preparation stage and identified types of risks for the achievement of the project objectives. The PIF also provided a risk rating and corresponding risk mitigation measures.

The preliminary risk analysis from the PIF stage was transferred in full into the Project Document. The risk rating was done on a simplified rating scale from 1 to 5. None of the identified risks were rated '4 or above' in terms of probability and impact that would allow for identification of critical risks for further monitoring during project implementation. The risks have not been updated during the inception phase, nor during the MTR and subsequent project addendum, however, all risks have been duly monitored during project implementation mainly through Atlas and the Project Implementation Reviews (PIRs).

The role of 'assumption' column in the PRF seems to be underestimated and not populated properly, the theory of change of the CAP and those outcomes identified in the PRF are totally based on significant assumptions that the market is ready for the CAP to intervene and that stakeholders are interested in the CAP services. This is not to suggest that these assumptions are right or wrong, but to reiterate the importance of identifying and documenting those assumptions upfront and use the M&E to validate those assumption as we go.

Showcase transactions for each in-country initiative was not identified during the PPG stage, which will determine the size of transactions, low-carbon technology types and associated baseline technologies. Beneficiaries will also be a function of the low-carbon technology type. The USD 30 million project target shown in the table is for a total

Terminal Evaluation of 'the Climate Aggregation Platform (CAP)' project

of 3 showcase transactions, with a conservative assumption that each transaction amounts to an average USD 10m in size.

The nascency nature of the market and the limited number of real-life financial aggregation transactions in the small-scale, low-carbon energy sector in developing countries to date has not been identified as an assumption the underpins the fundamentals of the theory of change until it was highlighted in the joint UNDP/CBI flagship report 'Linking Global Finance to Small-Scale Clean Energy' and more recently in the preliminary findings of the Uganda and Rwanda market assessments.

Also, for the tCO₂e target, it was also assumed a solar PV technology and a combined cycle gas baseline. The individual or business beneficiaries assumes average household rooftop solar PV systems of 3kW, and average C&I rooftop solar PV systems of USD 500,000 per system. Average household size of 5 individuals. All of these estimates were replaced with empirical data during project implementation.

The Social and Environmental Screening Process (SESP) was carried out appropriately at the project formulation stage at the global level and did not identify any risk of relevance, at the local level, the project will apply UNDP's SESP at the country level as in-country activities are further defined.

Planned stakeholder participation

The project design promotes significant participation of diverse stakeholders at both local and global levels. The CAP's central mechanism to advance innovative solutions are meant to be a globally coordinated, local partnership model, targeting the private sector. In practice this will be via the establishment of outcome-oriented, national working groups in each of the CAP's in-country initiatives. Such an approach was included in the original prodoc, but due to disagreements amongst the CAP team in the initial years was not advanced.

Following further consideration, the restructured CAP project addendum reviewed the stakeholders' participation strategy as follows:

- **A local working group model** that is well-suited to identify market barriers, solutions and fostering innovation. A guiding principle behind the CAP's approach to innovation is that the private sector, in the local context, is best placed to discover and execute on innovative solutions. The CAP's role is to create the conditions and an ecosystem which informs and empowers the private sector in this regard. The national working groups were supposed to be the CAP's central mechanism to identify and promote innovative solutions. The CAP provided structured support to national working groups, and this will comprise an important part of the CAP's offer. Such support has been resourced via a CAP national/regional coordinator, in turn reporting to a UNDP CAP Project Manager. In Uganda, the establishment of a new standalone National Working Group (NWG) was not possible, alternatively, the National Coordinator identified potential hosts for the NWG. Based on a comparative analysis of the different alternatives, the newly formed "National Renewable Energy Platform" (NREP) was selected as the most suitable option. The Ministry of Energy and Mineral Development (MEMD), who manages the NREP, planned to put in place several technical working groups including one on 'Access to Finance' which could serve as the basis for the CAP's NWG in Uganda. In Rwanda, due to the initial recruitment process, and a subsequent attempt at hiring a National Coordinator were inconclusive due to lack of suitable candidates, and this led to not establishing a local Working group at the local level. The CAP continued to engage on a frequent basis with the CO focal point, TFE Africa was able to undertake its market assessment work including consultations with Rwanda stakeholders. And an international consultant with experience in Rwanda was eventually hired to expand on this work.
- **The CAP established a global network of relevant stakeholders in financial aggregation.** In addition to its local partnership model, the CAP sought to develop structured partnerships at the global and regional level with

Terminal Evaluation of 'the Climate Aggregation Platform (CAP)' project

relevant stakeholders. Potential partners who share CAP's objectives, and may bring networks, experience, and resources (human, capital). Also, the members of the network could participate in knowledge products developed by the CAP such as events, publications, case studies, etc. Partners may also participate as potential investors in CAP supported transactions or assist in identifying and mobilizing sources of funding.

- The geographic focus of the CAP was changed into two countries in East Africa, Rwanda, and Uganda. Over time, and subject to availability of resources, the project could add further in-country initiatives and broaden the geographic scope, possibly to India and Latin America.

The stakeholder participation strategy founded on the CAP's ambition is to be a centre of excellence and the pre-eminent global actor in its role, and to continue ongoing operations beyond the initial GEF seed financing and the project lifetime. This ambition is included in the prodoc. The CAP developed a database of stakeholders with activities related to financial aggregation of small-scale low carbon assets in developing countries.

Linkages with other interventions

Following the signature of an MoU with the private sector entity South Pole Carbon Asset Management Ltd. (South Pole) to formalize UNDP's engagement with the D-REC Initiative (South Pole acts as the initiative's secretariat). The CAP has been working closely with the D-REC Initiative to develop a pilot project in Uganda.

D-RECs are a high-impact mechanism to connect off-grid renewable energy entrepreneurs to new investment with a triple benefit:

- Reduce energy poverty and bring us closer to achieving SDG7
- Accelerate the low-carbon energy transition, avoiding thousands of tonnes of CO2 emissions
- Make it easier for organizations to shift their businesses to 100% renewable electricity

The D-REC initiative includes the participation of a wide range of organizations including UKAid, Shell Foundation, Signify Foundation, Good Energies Foundation, EnAccess, GIZ, the Swiss Agency for Development, the Energy Web Foundation, Odyssey, BBOX, Candi, PowerGen, MPower, responsAbility, IFC, Persistent, Roots of Impact, VERRA, I-REC Standard, GOGLA, AMDA, SEforAll.

The CAP has also interacted with the Global Off-grid Lighting Association (GOGLA) who manages the PAYGO PERFORM project which seeks to develop and implement standardized KPIs to measure solar PAYGO companies' performance and to set up a centralized reporting infrastructure. The CAP was notably invited by GOGLA to take part in the 'Virtual Boardroom C: Scaling the sector through climate finance' at the Global Off-Grid Solar Finance Summit (9th Dec 2021). (Evidence: Participant Briefing Pack; write ups from GOGLA)

Gender equality

The prodoc recognises that women can play an important role in small-scale, low-carbon energy: first, at the household level, as the recipients of energy services, and as energy managers in the home; second, at the business and finance level, where women can act as entrepreneurs in energy companies, and/or be employed in the finance industry.

Gender equality has been incorporated into the project design. The project manager was supposed to be the designated focal point for gender in the project, accountable for all project matters related to gender. The CAP performed a gender analysis as part of the market assessments and CAP action plans. Where appropriate, gender aspect is being incorporated into the CAP's selected barrier-removal activities including the CAP Financial Innovation Challenge.

Terminal Evaluation of 'the Climate Aggregation Platform (CAP)' project

Project Implementation

Adaptive management

GEF evaluations assess adaptive management in terms of the ability to direct the project design and implementation to adapt to changing political, regulatory, environmental, and other conditions outside of the control of the project implementing teams. The adaptive approach involves exploring alternative ways to navigate the projects towards meeting the planned objectives using one or more of these alternatives.

The CAP project has been going through number of operational hiccups and structural challenges in the initial years that required immediate adaptive management measures to be taken effectively. However, in many cases, it has taken the project management so long to respond to the emerging challenges, for example, with differing views within the entire CAP Project team that without an appropriate decision-making apparatus, the management arrangements did not provide any executive powers within the team to render decisions for the CAP Project, even on a pilot basis. This has proven to be a primary cause for the lack of progress of the CAP Project and a major structural challenge particularly prior to the project re-structuring.

The CAP project has implemented adaptive management measures throughout the project timeframe, and these measures are summarised here:

- **CAP restructuring:** Due to a series of protracted operational and governance challenges, the CAP was operationally put on hold in April 2018 to conserve resources and initiate a restructuring process. An MTR was performed and concluded in December 2018 and the MTR's recommendations focus largely on revising its management arrangements to facilitate personnel executing the project towards its intended outcomes. As a result, the project developed a project addendum to set out the arrangements for a restructured CAP. The restructuring refined the objectives of the CAP, its operational modalities, and its activities, informed by lessons learnt from the CAP's operations to date and the recommendations of the MTR. Its aim is to reorient the CAP, with new, clear guidance to be followed by the global CAP team.
- **Changes regarding UNDP and CBI roles in the CAP:** Based on lessons learnt from the CAP's operations through the MTR, UNDP and CBI have adjusted roles in the restructured CAP with aim to bring improved coordination and accountability in activities. As part of this change, UNDP, as the project's implementing entity, has decision-making authority. CBI is acting as a Responsible Party on behalf of UNDP. And UNDP's role has been expanded to include direct implementation of the activities in all three of the prodoc's components, except where CBI engages in specific activities, the CBI role has been focused on the joint flagship report, its launch and a webinar series.
- **Innovation challenge introduction:** UNDP's procurement modality to engage with the private sector was a limiting factor and not appropriate to serve the CAP purpose. In response, the project management identified the Innovation Challenge engagement modality as a promising option, since the 'Showcase Transactions' are effectively 'Innovative Financing Solutions' which are likely to involve private sector entities, and address the need to identify and support innovative financial aggregation structures and models at an early stage. This modality had been included in the Prodoc addendum, and implanted in a way to overcome the limitations with classical engagement modalities in UNDP. An innovation challenge was launched in July 2022 to identify innovative financial aggregation structures and models to support.
- **Mid-term Review outcomes stock-taking and implementation:** the MTR is a significant opportunity for applying effective adaptive management measures. The MTR provided 10 recommendations that led to the restructuring the CAP and developing the project addendum. UNDP developed and implemented a management response plan to guide the implementation of the 10 recommendations.
- **Effectiveness of recruitments:** The recruitment of the National Coordinators for Uganda and Rwanda and the Project Analyst was a key determinant for the success of CAP activities, which required contributions from the full CAP Project Team. Delays in recruitment had limited the team's ability to make progress towards the

Terminal Evaluation of 'the Climate Aggregation Platform (CAP)' project

achievement of these targets, especially at the local level. There have been several reasons for the delays including unreasonable expectations to find specific technical expertise in such evolving sector in the targeted countries, along with the multiple delays to advertise the positions, change in the contracting modality at the request of the COs, and re-advertisements due to a lack of sufficient suitable candidates. The project management realised that a good adaptive management practice would be to recruit a local coordinator with minimum technical expertise whilst bringing the specific technical expertise internationally. The project management has taken adaptive management actions to address this matter including changing the overly technical nature of the role in Uganda to a coordinator role, and changing the contracting modality in Rwanda to a consultant. The project also hired a specialised consultant to fill in the technical gap (TFE in this case). Overall, delays in requirement of project manager and coordinators have been a significant limiting factor in driving the project activities on time.

However, there are areas where the CAP project could have been more effective in applying adaptive management measure, including the review of the project design. As much as adaptive management is applied on project operations, it can be similarly applied to review and validate project design. As discussed in the 'project design' section above, the project design involved major deficiencies, particularly in terms of the overly ambitious targets and wrong assumptions, that have been recognised by the project management early on but never addressed in the inception phase nor through the MTR. The Midterm Review, in particular, would have been the right avenue to suggest instrumental changes to the project assumptions and targets, and bring the design back to a more realistic track.

Actual stakeholder participation and partnership arrangements

Original arrangements: The CAP Project was designed to be under direct implementation by UNDP with CBI serving as a Responsible Party to undertake activities mainly related to the promotion of low carbon financial aggregation support by the CAP Project globally. This management arrangement was designed to maximize the comparative advantages of both UNDP and CBI in promoting low carbon financial aggregation globally. As such, CBI was supposed to be the lead for the "global offer" (under Component 1) with UNDP taking the lead for in-country showcase transactions (under Component 2) and Project evaluations. In-country market development under Component 3 was to be split combining the strengths of UNDP with its established country offices globally, and CBI with its proven capacities on awareness raising.

The Project Management Unit (PMU) was to consist of a part-time UNDP Project Manager with a UNDP Project Assistant, a structure that was to be mirrored within CBI. The PMU was also to include a part-time Strategic Advisor for both UNDP and CBI teams to provide strategic guidance and advancing partnership opportunities. The ProDoc justification for this unique management arrangement was to provide the team with flexibility to be responsive to rapidly evolving financial markets. There was a lack of agreement within the CAP Project team on setting up national working groups, and by extension the recruitment of National Coordinators.

Restructuring: The MTR recognised that these management arrangements between UNDP and CBI has paralysed CAP Project progress. Difficulties were experienced within this structure to reach consensus on strategic actions to meet CAP Project objectives, particularly with no clear decision-making mechanism defaulting to consensus being required between UNDP and CBI to execute any decisions. Therefore, the MTR recommended to revise the Responsible Party relationship between UNDP and CBI.

The MTR also recognised that without the setup of these national working groups, discussions amongst CAP team members became too generalized without a focus on a specific country and technology sector. This in turn led to efforts by both UNDP and CBI to separately prepare activities to promote low carbon financial aggregation in

Terminal Evaluation of 'the Climate Aggregation Platform (CAP)' project

developing countries. However, without a strong decision-making mechanism, a lack of support for some of the decisions being made and solutions being offered, and an absence of in-country presence, none of these activities were progressed in the first half of the project duration.

Engagement with the UNDP Country Offices (UNDP COs): CAP's engagement with the COs in targeted countries has been challenged with number of issues, including clarity on the role of the CO in CAP, CO's capacities and resources for effective participation in the CAP and level of CO interest in CAP's outcomes.

The UNDP COs in Rwanda and Uganda were not consulted in the design stage of the project, and this is explained by the fact these countries were not initially selected during the project design stage, after the restructuring, the project manager conducted a mission to both countries for consultation.

The restructuring and the project document addendum have not defined a clear role with clear communication channels with the UNDP COs, this was coupled with the fact that COs are under resourced and have no capacity to actively participate in the CAP activities, and the delays in recruiting a national coordinator didn't help to fill these gaps. As a result, the COs level of engagement in the project needed to be strengthened, and going forward in the CAP beyond the GEF era, these kinds of role and responsibilities will have to be clarified to ensure smooth implementation.

As noted earlier in this report, the CAP established a local working group model that is well-suited to identify market barriers, solutions and fostering innovation. In Uganda, the establishment of a new standalone National Working Group (NWG) was not possible, alternatively, the National Coordinator identified potential hosts for the NWG. Based on a comparative analysis of the different alternatives, the newly formed "National Renewable Energy Platform" (NREP) was selected as the most suitable option. The Ministry of Energy and Mineral Development (MEMD), who manages the NREP, planned to put in place several technical working groups including one on 'Access to Finance' which could serve as the basis for the CAP's NWG in Uganda.

In Rwanda, due to the initial recruitment process, and a subsequent attempt at hiring a National Coordinator were inconclusive due to lack of suitable candidates, and this led to not establishing a local Working group at the local level.

Also, COVID 19 pandemic affected travel and in person meetings. This for instance affected CBI's planning for their annual events which in turn affected the CAP's global stakeholder engagements (webinars were done instead of in person meetings, etc.). Travel restrictions due to COVID also meant that missions to coordinate CAP activities with COs or consultations with stakeholders were not possible either during the time where COVID restriction were in place.

The CAP also established a global network of relevant stakeholders in financial aggregation to develop structured partnerships at the global and regional level with relevant stakeholders – as explained in previous sections.

Project Finance and Co-finance

The original ProDoc included a total of USD 85,350,000 in co-financing: USD 50,000,000 in the form of loans and USD 30,000,000 in equity in Latin America as well as USD 5,000,000 for loans in India from various partners. As well as in-kind (staff time) co-financing of USD 200,000 from CBI and USD 150,000 from UNDP.

The MTR found that "Various financial partners who provided Letters of Co-financing for CAP were identified in the ProDoc." However, these financial partners were not committed in any manner to provide financing, credit

Terminal Evaluation of 'the Climate Aggregation Platform (CAP)' project

enhancement, risk mitigation instruments, information or introductions to stakeholders in any targeted low-carbon market ecosystems. Although CAP communicated with these financial partners, no potential transactions, activities or working groups were forthcoming.” As a result, the co-financing did not materialize.

The USD 85,000,000 of co-financing in Latin America and India were not materialized during the project period. However, UNDP and CBI are expected to provide in-kind co-financing.

In total US\$ 321,217 has been documented as secured co-finance, with US\$200K from CBI and US\$121,217 from UNDP as per table 3 below. There is obviously a huge variance comparing to the pre-set target of US\$85,350,00. The achieved co-finance is less than 0.3% of which was anticipated, and this is attributed for the following factors:

- 1) The financial partners who provided Letters of Co-financing for CAP at the design stage were not committed in any manner to provide financing, credit enhancement, risk mitigation instruments, information or introductions to stakeholders in any targeted low-carbon market ecosystems.
- 2) The project restructuring resulted in changing the countries for local offer and accordingly new partners were engaged at the country level.
- 3) And more importantly the fact that there are no transactions actually demonstrated as of yet.

Nonetheless, the Financial Innovation Challenge is expected to be a source of co-financing, although co-funding is not mandatory as part of the CAP Financial Innovation Challenge, applications that include co-funding will receive additional points (up to 5%) during the evaluation process. Depending on the applications received and the outcome of the evaluation and selection process, there may be additional co-financing amounts related to supported projects.

Table 3: Finance and co-finance table

Co-financing (type/source)	UNDP own financing (mill. US\$)		Government (mill. US\$)		Partner Agency (mill. US\$)		Private sector (mill. US\$)		Total (mill. US\$)	
	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual
Grants							30.00 ¹¹		30.00	00
Loans/Concessions					55.00 ¹²				55.00	00
• In-kind support	0.15	0.12			0.2 ¹³	0.2			0.35	0.312
• Other										
Total									85.35	0.312

¹¹ US\$30 million equity from MGM Innova Capital

¹² US\$50 million in loans from Inter-American Investment Corporation (IDB Group) and US\$5.0 million in loans from EESL of the Indian Development Bank

¹³ US\$0.2 million from Climate Bonds Initiative

Terminal Evaluation of 'the Climate Aggregation Platform (CAP)' project

For Financial controls and observations from financial audits and disbursement of the CAP Project's GEF resources please refer to the efficiency section.

Monitoring & Evaluation: design at entry, implementation, and overall assessment of M&E

Assessment element	Rating
Monitoring & Evaluation (M&E) Design	Satisfactory (S)
Monitoring and Evaluation (M&E) implementation	Moderately Satisfactory (MS)
The overall assessment of the M&E	Satisfactory (S)

Monitoring & Evaluation (M&E) Design: The M&E Framework was described in detail in Section 6 of the Project Document. It comprises of standard M&E items for UNDP-GEF project such as the Inception Workshop (IW), meetings of the project board, annual Project Implementation Reviews (PIRs), audit, the Mid-Term Review (MTR), the Terminal Evaluation (TE) and the final report.

The design of M&E framework follows the standard M&E template for projects of this size and complexity. Overall, the evaluator found the M&E design adequate for monitoring the project results and tracking the progress toward achieving the objectives, with the exception of deficiencies in the project results framework discussed in the section "Analysis of the project results framework". The M&E design is backed with adequate resources (a total of US\$ 64,000 allocated for mid-term and terminal evaluations) and clearly defined roles and responsibilities.

Therefore, the M&E design is rated Satisfactory (S).

Monitoring and Evaluation (M&E) implementation: The project board was activated in mid-2019, with first meeting took place on 4th July 2019. The project board was anticipated to be held twice per year in the project document and project addendum, however, the meetings were held only once every year (with exception of 2021 – twice). In fact, the board didn't meet in 2022, and two update emails were sent to the board members during the year. The board meeting had to be re-scheduled to 2023. The project board was updated with the progress and planned activities including challenges and opportunities, the board role in M&E was mainly to provide strategic guidance on oversight based on the progress made, and the board approved the second project extension (for 8 months) and endorsed the third extension in December 2022.

The project inception workshop was held on 21-22 September 2017 in UNDP's New York offices. In attendance were the core CAP teams from UNDP and CBI, as well as UNDP staff who were envisaged to support CAP in some capacity over the next years. The two-day workshop is meant to generate motivation and knowledge awareness about financial aggregation objectives. As discussed earlier in this report, the inception phase opportunity was not really utilized wisely to validate the project theory of change, assumptions and targets, and this was a contributor to the 'on-hold' situation for two years after the inception.

There have been no M&E activities for the period between the inception workshop (Sept 2017) and MTR (Dec 2018), the first project PIR was due in 2019 and a total of 4 PIRs were prepared for the GEF fiscal years 2019 to 2022. The PIRs were elaborated in a standard uniform structure and contain detailed reporting on progress towards performance targets at outcomes, as well as the project objective levels. In line with the UNDP/GEF requirements, PIRs also contain an assessment and rating of the project progress provided by the PM, UNDP CO, the project Implementing Partner, and the UNDP RTA. The quarterly reporting process was limited to financials only and didn't include progress updates. The evaluator found the PIRs compliant with the standard UNDP/GEF project cycle reporting tools and particularly detailed. The project management team has been producing

Terminal Evaluation of 'the Climate Aggregation Platform (CAP)' project

quarterly progress regularly since Q4 2020, a total of 11 quarterly progress report produced so far with details on progress made and challenges, Opportunities and Recommendations.

The project has been audited according to UNDP Financial Regulations and Rules including apply audit and spot check on the project partner CBI. The audit/spot check process identified issues and these were dealt with accordingly.

MTR was delivered in critical time after the project was put on hold for two years with major disagreements among UNDP team and with partners, in this sense, the MTR was instrumental to help resetting the CAP project. Though the MTR would have been more influential if it had helped resetting the project assumption and targets as well. The UNDP developed and implemented a management response plan to guide the implementation of the 10 recommendations, but there was no formal tracking process of where the recommendations are up to in terms of delivery.

The GEF Climate Change Tracking Tool has been used to monitor global environmental benefit results. The baseline/CEO Endorsement Tracking Tool – submitted along the project document and transitioned to use the Core Indicator tool during the during the MTR and updated again during this TE.

UNDP implementation/oversight () and Implementing Partner execution (*), overall project implementation/execution (*), coordination, and operational issues*

Assessment element	Rating
Quality of UNDP Implementation /Oversight	Satisfactory (S)
Quality of Implementing Partner Execution	Moderately Satisfactory (MS)
Overall project implementation/execution	Satisfactory (S)

UNDP implemented the project using the direct implementation modality (DIM). UNDP is responsible for the overall implementation and delivery of the project and ensures that the project objectives are met. UNDP performed quality assurance, oversight services, audit, and risk monitoring and management in line with the UNDP rules and regulations. Also, UNDP organized procurement events, expert recruitment, and financial management in line with the UNDP rules and regulations. UNDP has put together a project management team included a full-time staff PM was hired in 2019 who restructured the project. Then a new part-time (consultant) PM was hired to resume implementation in Dec 2020 (Current). A part-time PA was hired in Sept 2021 and a full-time NC for Uganda was hired in Sept 2021. The recruitment process of a NC in Rwanda was unsuccessful and replaced by an international consultant instead.

UNDP procurement and recruitment services to the CAP project have been compliant with the regulation but described as slow and referenced as a main reason for delays in implementing activities, in addition to the procurement systematic issue in relation to engaging private sector in a way that serves the purpose of the CAP, hence the project introduced the innovation challenge. As noted below (risk management), the project risks have been adequately identified and monitored in Atlas as well as through the PIR reporting process.

The Quality of UNDP Implementation /Oversight is rated Satisfactory (S).

CBI has been initially selected as a 'Responsible Party' to UNDP, entering into a Responsible Party Agreement with UNDP. In this role, CBI was to perform pre-designated components and activities. however, the role of CBI has changed based on the MTR as noted earlier to be focussed on the delivery of the flagship report and other awareness raising activities.

Terminal Evaluation of 'the Climate Aggregation Platform (CAP)' project

These arrangements were set to maximize UNDP and CBI's comparative advantages: UNDP as an established development actor with an on-the-ground presence across developing countries; CBI as a fast-growing NGO with a strong network and proven awareness-raising capabilities.

The MTR recognised that these management arrangements between UNDP and CBI has paralysed CAP Project progress. Difficulties were experienced within this structure to reach consensus on strategic actions to meet CAP Project objectives, particularly with no clear decision-making mechanism defaulting to consensus being required between UNDP and CBI to execute any decisions. Therefore, the MTR recommended to revise the Responsible Party relationship between UNDP and CBI.

The MTR also recognised that without the setup of these national working groups, discussions amongst CAP team members became too generalized without a focus on a specific country and technology sector. This in turn led to efforts by both UNDP and CBI to separately prepare activities to promote low carbon financial aggregation in developing countries. However, without a strong decision-making mechanism, a lack of support for some of the decisions being made and solutions being offered, and an absence of in-country presence, none of these activities were progressed in the first half of the project duration.

The subsequent project addendum have recognised these management arrangement issues, and the project was restructured accordingly to overcome these issues, changes included:

- UNDP, as the project's implementing entity, has decision-making authority. CBI is acting as a Responsible Party on behalf of UNDP.
- UNDP's role was expanded to include direct implementation of the activities in all three of the prodoc's components, except where CBI engages in specific activities including:
 - o CBI's primary activities will be focused on green bond market development and awareness for small-scale, low-carbon energy assets, primarily targeted towards institutional investors (virtual workshops, Annual CAP global specialist roundtable, and develop the first edition of a new flagship publications on the State of the Small-Scale, Low-Carbon Aggregation Markets.
 - o CBI's support is welcomed on a flexible, case-by-case basis in any other area of the CAP's activities. In general, such ad hoc activities should be aligned with national working groups' findings and objectives.
- The Responsible Party Agreement was amended to extend its implementation period for 24 months, in alignment with the project extension, and with an adjusted budget as per the project revised budget and specific activities agreed upon.
- UNDP restructured its CAP human resources including:
 - o A project manager has been hired in a full-time staff position
 - o Additional human resources reporting to the project manager, addressing specific capacities to be put in place. This may include: National coordinators, to support national working groups and in-country initiatives; Knowledge management support including website administration; and technical consultants.
- CBI designated a CAP focal point to be the primary point of contact with UNDP on CAP related matters.

Based on the above the **Quality of Implementing Partner Execution is rated Moderately Satisfactory (MS)**.

Partnerships

The MTR noted that the CAP Project has not had any successful linkages with other donor-supported projects including IDB. However, stakeholders engagement and partnerships have evolved and improved after the MTR. The CAP identified and established contact with several relevant actors in the financial aggregation and energy

Terminal Evaluation of 'the Climate Aggregation Platform (CAP)' project

sectors both directly or with support from the Climate Bonds Initiative and the service provider TFE/Lime Group. This includes:

- Consulted with over 100 key stakeholders for the development of the flagship report 'Linking Global Finance to Small-Scale Clean Energy' including 38 interviews with key stakeholders to collect input on the report.
- The CAP Financial Innovation Challenge has also provided an opportunity to further engage with relevant actors. A database of over 350 stakeholders was compiled with contact details for 200. These stakeholders were contacted via email by procurement to promote the innovation challenge once it was launched on July 21st, 2022 .
- Following the signature of an MoU with the private sector entity South Pole Carbon Asset Management Ltd. (South Pole) to formalize UNDP's engagement with the D-REC Initiative (South Pole acts as the initiative's secretariat). The CAP has been working closely with the D-REC Initiative to develop a pilot project in Uganda.
- Extensive consultations undertaken by TFE in relation to the CAP's Market Development work (Over 70 interviews to date).
- The CAP has also interacted with the Global Off-grid Lighting Association (GOGLA) who manages the PAYGO PERFORM project which seeks to develop and implement standardized KPIs to measure solar PAYGO companies' performance and to set up a centralized reporting infrastructure.
- In recent months, the CAP has also been engaging with other initiatives such as the Milken Institute (Africa Securitization Alliance) and the Cities Climate Finance Leadership Alliance (Members include AFD, AIIB, CAF, CIF, ADB, EIB, IDB, KFW, GIZ, etc.). One of the focus areas of this Alliance is financial aggregation. The CAP team has been engaging with its secretariat the Climate Policy Initiative to identify potential areas of collaboration.

In order for the CAP to succeed, it needs to broaden its network of partners, especially given the fact that financial aggregation may need to be linked with other de-risking mechanisms such as concessional financing, guarantees, subsidies, or tax-exemptions, to name a few , and this requires strategic partnerships to be established with different financing organisation, including banks and banking agencies within UN system (e,g UNCDF) to facilitate effective engagement with the private sector.

Risk management and Social and Environmental Standards

The prodoc identified 6 key risks rated on a simplified scale from 1 to 5. None of the identified risks were rated '4 or above' in terms of probability and impact that would allow for identification of critical risks for further monitoring during project implementation. The risks have not been updated during the inception phase, nor during the MTR and subsequent project addendum, however, all risks have been duly monitored during project implementation mainly through Atlas and the Project Implementation Reviews (PIRs).

The risk update process included identifying emerging risks such as COVID and its impact on the mobility and gatherings and then followed by the conflict in Ukraine and the subsequent financial risks in the "Fluctuation in credit rate, market, currency" category have been updated and one in particular has become Substantial. The COVID 19 pandemic and the conflict in Ukraine have led to a global cost of living, energy, food, and finance crisis. Related risks could impact the small-scale, low-carbon, energy sector and the financial aggregation market, and pose challenges for the implementation of the CAP project.

The operational risk around the limitations in engaging with private sector from contractual point of view has not been identified until the project addendum after the MTR. Nonetheless, the Innovation Challenge engagement modality was identified as a promising option, based on the fact that 'Showcase Transactions' are effectively 'Innovative Financing Solutions' which are likely to involve private sector entities. This modality had been included

Terminal Evaluation of 'the Climate Aggregation Platform (CAP)' project

in the Prodoc addendum, which was endorsed by the Project Board, as a possible avenue to support such transactions (June 2020).

The Social and Environmental Screening Process (SESP) was carried out appropriately at the project formulation stage at the global level and did not identify any risk of relevance and there has been no more need for social and environmental assessment at the global offer level. At the local level, the project will apply UNDP's SESP at the country level as in-country activities are further defined, this has not been done yet simply because no transactions demonstrated at the local level as of yet.

Project Results

Progress towards objective, expected outcomes and impacts ()*

Assessment element	Rating
Progress towards objective, expected outcomes and impacts	Moderately Unsatisfactory (MU)

The overall objective of the CAP is to “promote the scale-up of financial aggregation for small-scale, low-carbon energy assets in developing countries”. Since all objective-level indicators (financial value of investments, GHG emissions reduction and number of beneficiaries) depend on the completion of showcase transactions which have not materialized yet, there is no progress at this stage towards the objective-level EOP targets, and the overall objective is therefore off track.

Despite significant progress in the last two years of the project time, it is unlikely this status of the objective is going to change significantly in the short term, since studies conducted by the project revealed that the financial aggregation market is still at a very nascent stage in developing countries (including in East Africa, the region of interest for the CAP's in-country activities) and still requires upstream work to be conducted to address barriers at the design stage before showcase transactions can effectively materialize such as regulatory frameworks reform at the country level. This prompted the project to adopt a minor amendment to the project objective and focus on supporting innovative structures and models (which may later lead to showcase transactions) instead of supporting showcase transactions directly, given the immaturity of the market. This change was approved by the Project Board in December 2021.

Project objective	Indicator	Baseline	End of Project Target	Status at the TE
Project Objective: <i>To promote the scale-up of financial aggregation for small-scale, low-carbon</i>	<i>Direct impact:</i> USD value of financially closed CAP showcase transactions	0 CAP showcase transactions	USD 30 million ¹⁴	0.00 USD value of financially closed CAP showcase transactions
	<i>Direct impact:</i> Lifetime GHG emission reductions from	0 CAP showcase transactions	266,118 tCO ₂ e	0.00 tCO ₂ e lifetime GHG emission reductions from

¹⁴ Project objective targets presented here are based on assumptions. Showcase transactions for each in-country initiative will only be identified later during project implementation. This will determine the size of transactions, low-carbon technology types and associated baseline technologies. Beneficiaries will also be a function of the low-carbon technology type. The USD 30 million project target shown in the table is for a total of 3 showcase transactions, with a conservative assumption that each transaction amounts to an average USD 10m in size. The tCO₂e target used here is based on a number of assumptions, including a solar PV technology and a combined cycle gas baseline. The individual or business beneficiaries assumes average household rooftop solar PV systems of 3kW, and average C&I rooftop solar PV systems of USD 500,000 per system. Average household size of 5 individuals. All of these estimates will be replaced with empirical data during project implementation. Sources: IRENA, Power to Change (2016); UNDP, DREI Tunisia (2014).

Terminal Evaluation of 'the Climate Aggregation Platform (CAP)' project

<i>energy assets in developing countries</i>	financially closed CAP showcase transactions		financially closed CAP showcase transactions
	<i>Direct impact:</i> number of individuals or businesses benefiting from low-carbon energy as a result of financially closed CAP showcase transactions. Disaggregated by gender.	0 CAP showcase transactions	31,250 individuals, of which 15,625 are women <u>or</u> 60 businesses ⁹
			0 individuals and 0 businesses benefiting from low-carbon energy as a result of financially closed CAP showcase transactions.

Outcome 1, To promote the scale-up of financial aggregation for small-scale, low-carbon energy assets in developing countries.

Outcome 1 aims at increasing awareness, exchange of information and engagement in financial aggregation for small-scale, low-carbon energy activities in developing countries has made significant progress towards its EOP targets.

While the project team has not yet conducted satisfaction surveys to monitor stakeholders' assessment of CAP's awareness raising activities and global knowledge products (as required to measure the progress on the two first indicators of this outcome), the project has evidently contributed to these outputs by organizing and/or taking part in several well-attended events relevant to financial aggregation, both at global and national level (Uganda).

The awareness activities included 1) online presence (re-design and expansion of the CAP website – relaunched in Jul 2022. As well as social media campaigns and webinars (e.g., CBI webinar series, virtual workshop, launch of joint UNDP-CBI report, CAP FIC information session, etc.), 2) media outreach including press releases and social media campaigns (e.g., for the launch of the CAP Financial Aggregation Challenge) 3) events including several webinar, and 4) Knowledge products such as, among many others, the joint UNDP-CBI flagship report on financial aggregation and the upcoming Market Assessments and Action Plans for Uganda & Rwanda. (refer to effectiveness section for more details).

Outcome 2 Financial closure of three financial aggregation transactions for small scale, low carbon energy activities in developing countries

At this stage, no showcase transaction has been closed. In light of the findings from the joint UNDP/CBI flagship report on financial aggregation, and upon consultations with management and the CAP Project Board Chair, the project had determined that UNDP's Innovation Challenge modality was the most appropriate to identify and support suitable showcase transactions.

This approach was approved by the Project Board, however the launch of the challenge was delayed by several months due, on one hand, to procedural issues (complexity of the procurement and approval processes, need to wait for the confirmation of the project extension, etc.) and, on the other hand, to the need to revise the approach to more upstream support to innovative financial aggregation structures or models. To this end, the innovation challenge was launched in July 2022. Provided the challenge receives sufficient quality applications, it could lead to the project supporting up to 7 financial aggregation structures and models (potentially leading to showcase transactions in the future), including one in Rwanda and one in Uganda, before its operational closure.

In total 46 submissions were received for the innovation challenge (including 9 late submissions) from around the globe, with very diverse and interesting innovations, and targeting different energy sub-sectors and countries in

Terminal Evaluation of 'the Climate Aggregation Platform (CAP)' project

East Africa. And agreements have been signed with the 7 awardees. Each solution involves a different approach to financial aggregation to help unlock new sources of financing for the clean energy sector, including climate finance. These target different sub-sectors, from off-grid and on-grid solar, mini-grids, productive use appliances, e-mobility to clean cooking, and could be deployed across different countries in East Africa including Rwanda, Uganda, Kenya, Tanzania, Malawi, Ethiopia, Madagascar, Mozambique. Implementation is ongoing – Expected completion of all feasibility studies for the innovative financial aggregation models, by mid-Jul 2023, these are expected to lead to transactions in the near future and to lead to substantial potential impact, co-financing and potential for mobilizing investments¹⁵.

Furthermore, due to the nascent nature of the market and the limited number of real-life financial aggregation transactions in the small-scale, low-carbon energy sector in developing countries to date (As highlighted in the joint UNDP/CBI flagship report 'Linking Global Finance to Small-Scale Clean Energy' and more recently in the preliminary findings of the Uganda and Rwanda market assessments), there is a need for the CAP to work further upstream to address barriers at the design stage so that novel financial aggregation structures and models can be developed that can lead to financially closed transactions or "showcase transactions" in the near future.

Outcome 3 The market architecture and environment for replication and scale-up of financial aggregation transactions for small-scale, low-carbon energy is enhanced in three developing countries

Progress under this outcome was mostly apparent in Uganda, where a CAP national coordinator was finally contracted mid-September 2021 and has been actively engaging with national stakeholders since then. One outcome of these consultations was the agreement that the national working group should be embedded within an existing platform, namely the newly formed "National Renewable Energy Platform" (NREP) instead of becoming a bespoke, separate working group. The project has therefore been supporting the government to operationalize the NREP and a first meeting took place in June 2022 with 120 participants, which included a breakout session on finance organized by the CAP.

While considerable time and efforts were required to put these structures in place in Uganda, this work helped position the CAP and the UNDP Country Office as key players within NREP and in the sector and has laid the foundations for further activities.

On the other hand, no significant progress has been achieved in Rwanda on the creation of a national working group since the two subsequent attempts to recruit a CAP national coordinator were inconclusive (due to a lack of suitable candidates). The project has alternatively recruited an international consultant instead in 2022, who was not able to conduct a mission to Rwanda to advance the project activities due to several delays and challenges in coordination with CO. Through TFE's work, however, the CAP did undertake consultations and engaged with key local stakeholders including government entities (e.g., BRD, FONERWA, etc.). TFE have also developed a concept for a workshop to be undertaken in Rwanda and are planning a mission to the country in May 2023.

As far replication and up-scaling is concerned and based on the findings from Market Assessments, Action Plans and consultations, TFE has developed a menu of pilot activities to be undertaken as part of the CAP with consideration for the limited budget and timeline including development and dissemination of a White paper on

¹⁵ Details of the winners are available [here](#)

Terminal Evaluation of 'the Climate Aggregation Platform (CAP)' project

streamlining DRE aggregation transactions. And raising awareness about areas of improvement for DRE companies and offer assistance and about DRE among local and international financial institutions at the country level.

In Rwanda, the project developed a concept to expand the CAP's work in the country which has highlighted the opportunity to engage with the newly established national facility 'IREME Invest', a one stop center for green and sustainable investment. The CAP is also working with the CO and the UNDP Rome Center to hire an energy and finance expert to build on this work to identify and develop energy investment opportunities in the country with funding from the Italy-UNDP Energy partnership.

In Uganda, the CAP has also supported the CO in developing its energy offer notably contributing to the development of new concepts (including an e-mobility project concept) . The PM is also supporting the CO on new opportunities related to energy finance, notably an engagement with the EIB on the development of a concept for financing the electrification of social infrastructure (ongoing as of March 2023).

Relevance (*)

Assessment element	Rating
Relevance	Satisfactory (S)

Relevance to the aggregation market: Despite the nascent nature of financial aggregation markets, stakeholders interviewed in this TE have agreed that the financial aggregation market is holding great potential, promising and evolving sector, however, financial aggregation for DRE and other small-scale low carbon energy assets is still at a nascent stage and faces a range of barriers. Markets for financial aggregation require innovation and time to reach maturity, viability, and scale; a typical financial aggregation transaction is complex, involving numerous steps and multiple stakeholders.

The strategic relevance of the CAP services to the market needs is going to increase over time. The use of mainstream financial tools such as green, sustainable, and social (GSS) bonds can encourage wider sources of capital to invest, with aggregative financing models for distributed energy having the potential to improve the availability and reduce the cost of capital for such solutions. The financial aggregation instruments present opportunities to address the critical need for funding from the sell-side along with the growing buy-side demand and appetite from investors.

Financial aggregation can potentially unlock new sources of capital investment for the development of DRE projects and businesses in developing countries by providing the opportunity to invest in a diversified portfolio and gain exposure to small-scale, low-carbon energy assets. These assets can be pooled in a special purpose vehicle (SPV) to create asset-back securities (ABS) that funnel large-scale finance into small-scale enterprises and projects. Many advanced economies have thriving ABS markets, but these are yet to flourish in Emerging Markets (EM), where capital markets remain immature.

Relevance to national priorities: both Uganda and Rwanda have identified aspirational climate change mitigation targets in their climate policies. Although there are no direct reference to climate aggregation in the local policies and strategies, but the CAP project remains relevant as a mean to provide financing solutions to reach the defined targets.

Uganda: The main policy dedicated to addressing climate change issues in Uganda is the National Climate Change Policy (NCCP) adopted in 2015, along with its actionable implementation strategies, some of which have resulted

Terminal Evaluation of 'the Climate Aggregation Platform (CAP)' project

in the enactment of the National Climate Act in August 2021. The act gives effect and force of law to the UN Framework for Convention on Climate Change (UNFCCC), the Kyoto Protocol, and the Paris Agreement. In 2018, the government also launched Africa's first nationally determined contribution (NDC) Partnership Plan, which sets near-term goals that support Uganda's Vision 2040 policy. In September 2022, the government submitted its updated NDC, with the following main goals:

- 24.7% reduction in total greenhouse gas emissions below business-as-usual scenario (from 148.8 MtCO₂e to 112.1 MtCO₂e);
- 18.8% reduction in energy sector-related greenhouse gas emissions compared to 2030 business as usual scenario enabled by:
 - 4,200 MW renewable energy installed capacity;
 - Share of biomass energy used for cooking reduced to 40% from a baseline of 88%;
- 12% wetland coverage from 8.9% baseline figure;
- Area covered by forests increased from baseline 107,607km² to 407,608km¹⁶

Rwanda: In May 2020, Rwanda became the first African country to submit an updated Nationally Determined Contribution (NDC). Rwanda's mitigation contribution is comprised of two components:

- i. **Unconditional contribution:** A reduction of 16% relative to the business-as-usual in the year 2030;
- ii. **Conditional contribution:** An additional reduction of 22% relative to the business-as-usual achieved based on the provision of international support and funding.

Relevance to SDG7: Sustainable Development Goal 7 (SDG7) aims to ensure access to affordable, reliable, sustainable, and modern energy for all. Electricity penetration rates are notably lower in developing countries, and direct actions are needed to address the access and financing gap if SDG7 is to be achieved. Distributed renewable energy (DRE) and other small-scale, low-carbon energy solutions are vital to achieving universal access, especially as a means of reaching those most underserved. Some significant distributional discrepancies are also evident, with financial commitments concentrated in a few countries and thus failing to reach many of those most in need of international support.

The CAP is aligned with the SDG7 by helping to unlock capital resources for small-scale, low-carbon energy assets in developing countries and invest in the potential to lift millions of people out of energy poverty, create millions of jobs, help tackle and build resilience to climate change, and contribute to the achievement of the SDGs.

The UN estimates that an annual investment of USD35bn in access to electricity is needed by 2025 to be consistent with SDG7 targets and in support of other SDGs and net-zero emissions in line with the Paris Agreement. There is a fundamental shift in how capital is allocated in global capital markets. The triple threats of climate change, environmental degradation, and social inequalities, which the COVID-19 pandemic has further exacerbated, have led to the development of a sustainable finance market to directly address these challenges at scale.

Relevance to UNDP strategic plan: Energy is one of UNDP's six solutions areas in the UNDP Strategic Plan, 2022-2025. UNDP's de-risking renewable energy investment framework demonstrates that financing costs penalize green energy more than fossil fuel energy. Sustainable energy and SDG7 are fundamentals to the UNDP strategic plan and global programme of support. CAP contributes towards the achievement of the UNDP 2022-2025

¹⁶ The Uganda Off-grid Market Accelerator (UOMA), 2022.

Terminal Evaluation of 'the Climate Aggregation Platform (CAP)' project

Strategic Plan's ambitious goals of (i) supporting 500 million people to gain access to clean energy and (ii) promoting over US\$1 trillion of public expenditure and private capital investment in the SDGs.

Relevance to the GEF: The CAP project is also relevant to the GEF 6 strategic framework, specifically to CCM1 'Promote Innovation, Technology Transfer, and Supportive Policies and Strategies'. The CAP is directly related to Program 1: Promote the timely development, demonstration, and financing of low-carbon technologies and mitigation options, and more specifically to outcome C. Financial mechanisms to support GHG reductions are demonstrated and operationalized (Indicator 6. Degree of strength of financial and market mechanisms for low GHG development)

Effectiveness (*)

Assessment element	Rating
Effectiveness	Moderately Unsatisfactory (MU)

Outcome 1, which aims at increasing awareness, exchange of information and engagement in financial aggregation for small-scale, low-carbon energy activities in developing countries.

Outcome	Indicator	Baseline	End of Project Target	Status at the TE
Component/Outcome 1 <i>Increased awareness, exchange of information and engagement in financial aggregation for small-scale, low-carbon energy activities in developing countries.</i>	Survey score conveying stakeholders' assessment of CAP's awareness raising	0 CAP awareness raising activities	75% of stakeholders state 'satisfied' or 'very satisfied'	No surveys have been undertaken so far to gauge stakeholders' assessment of CAP's awareness raising. The CAP Project Team plans to send out a survey over the coming months to its extensive stakeholders' list as additional awareness raising activities take place.
	Survey score conveying stakeholders' assessment of CAP's global knowledge products	0 CAP global knowledge products	75% of stakeholders state 'satisfied' or 'very satisfied'	No surveys have been undertaken so far to gauge stakeholders' assessment of CAP's knowledge products. The CAP Project Team plans to send out a survey over the coming months to its extensive stakeholders' list as additional knowledge products are published.
	CAP global working group meetings	0 meetings annually	4 well-attended meetings held annually	0 CAP global working group meetings with several webinars have also taken place to engage with our network of relevant stakeholders. – Please note however that as part of the project restructuring which was endorsed by the CAP Project Board in June 2020, and based on the MTR recommendations, the CAP Global Working Group was replaced by a global network of international and national actors in financial aggregation and have been consulted by the CAP or provide inputs to technical documents or case studies.

Target 1.1: 75% of stakeholders state 'satisfied' or 'very satisfied'

Terminal Evaluation of 'the Climate Aggregation Platform (CAP)' project

While the project team has not yet conducted satisfaction surveys to monitor stakeholders' assessment of CAP's awareness raising activities and global knowledge products (as required to measure the progress on the two first indicators of this outcome), the project has evidently contributed to these outputs by organizing and/or taking part in several well-attended events relevant to financial aggregation, both at global and national level (Uganda). The survey is drafted and will be deployed with launch of upcoming CAP knowledge products.

The re-design of the CAP website coincided with the migration of all UNDP websites onto a new server and a new web design platform – This led to several delays with the re-design and re-launch of the website. Finally, in June-July 2022, the CAP Project team together with the UNDP Energy Communications Specialist were able to create the new CAP website, which was relaunched on July 21st, 2022¹⁷.

The website includes a “CAP Knowledge Library”, a one-stop-shop for key publications on innovative financing mechanisms for small-scale clean energy. This includes publications (in-house and external) on financial aggregation, securitization, clean energy finance, climate finance, green bonds, investment data, market data, toolkits, RECS / DRECs / PRECs, and PAYGO – A list of over 50 resources was curated by the CAP Project Team. Several of these resources were uploaded onto the “CAP Knowledge Library” which will be expanded and updated over the next months¹⁸.

The CAP released 3 press releases covering : 1) Financial aggregation can help address the triple threat of climate change, environmental degradation, and social inequalities, 2) UNDP Partners with D-REC Initiative to Scale Up Energy Access Through Innovative Investment Models and 3) the launch of the CAP Financial Innovation Challenge in Jul 2022. Upcoming media outreach includes the announcement of the CAP FIC awardees in March 2023, and launch of upcoming knowledge products (Market Assessments and Action Plans).

In addition to the public press release and social media campaigns related to the launch of UNDP challenge to boost innovative finance for small-scale clean energy in developing countries.

The CAP organized number of events including:

- 2-day webinar series on “Financial Securitization for Small-Scale Low Carbon Assets in Developing Countries” in November 2020. (PDFs with links to the recordings and the CBI announcement).¹⁹
- Webinar Launch of Flagship Report June 2022²⁰ In total, there were 176 registrants and 78 attendees (44% live conversion rate)
- Virtual Stakeholder Workshop for the CAP's Market Assessments work in Uganda, 29th March 2022.
- CAP Innovation Challenge - Information Session Aug 2022
- First National Renewable Energy Platform (NREP) meeting on June 8th, 2022 – With support from the CAP and the Uganda Country Office a full day event with 120 participants took place in Kampala. The event included breakout sessions for different technical working groups, including one on finance organized by the CAP – With 17 in-person participants in addition to the UNDP and TFE/Lime Group teams.
- A workshop on Innovative Finance on 21st September 2022 in Kampala (Approx. 50 participants). The workshop is organized jointly by the CAP, UNCDF and the Ministry of Energy and Mineral Development

¹⁷ <https://www.undp.org/climate-aggregation-platform>

¹⁸ <https://www.undp.org/climate-aggregation-platform/cap-knowledge-library>

¹⁹ Day 1 available [here](#), and day 2 available [here](#)

²⁰ <https://www.youtube.com/watch?v=pZMrZWWhUMNw>

Terminal Evaluation of 'the Climate Aggregation Platform (CAP)' project

(MEMD) as part of the NREP. It will include a session on D-RECs and one by TFE/Lime Group on the CAP's Market Assessments, Action Plans, and market development work.

- As part of the CAP's pilot market development activities, a workshop was organized on 28th Feb 2023 in Kampala with approx. 72 participants. The workshop included a presentation on the findings from the TFE work and sessions offering targeted knowledge for DRE companies and investors respectively as well as cross-learning.
- Other events to be confirmed before the end of the project (e.g. workshop in Uganda and a workshop Rwanda, launch of Market Assessments and Action Plans publications as well as announcement of CAP Financial Innovation Challenge Awardees)

Other events where CAP contributed to included:

- Side event titled "Financing solar at the last mile: perceived challenges, risks and opportunities" during the High-level dialogue on Energy Ministerial Forums in June 2021. (PDF with link to the recording; run of show for the event)²¹.
- Energy Efficiency and E-mobility Conference Uganda, Kampala, Nov 2022
- Global Off-Grid Solar Finance Summit - Virtual Boardroom Dec 2021

Target 1.2: 75% of stakeholders state 'satisfied' or 'very satisfied'

There are no survey data available yet on this target, the project team is planning to send a survey out soon. However, on knowledge products, the joint UNDP-CBI flagship report "**Linking Global Finance to Small-Scale Clean Energy - Financial Aggregation for Distributed Renewable Energy in Developing Countries**" was published in 2022 and disseminated through a far-reaching communication campaign. This report analyses potential links between global finance to small-scale clean energy projects in developing countries. The analysis identifies key barriers, market enablers, case studies, insights and recommendations to wider adoption of financial aggregation as a means to enable capital flows at scale toward small-scale low carbon energy initiatives.

The report was disseminated and shared with a broad audience – There was a media outreach, a social media campaign and a webinar for the launch of the report. The findings of the report have also helped guide the CAP's work in particular the market assessments and the design of the CAP Financial Innovation Challenge.

Other knowledge products that are currently being developed or planned for the next months include:

- Market Assessment Framework, User Guide and Guide to the Indicators – Final draft submitted ;
- Market Assessments for Rwanda, Uganda.
- East Africa high-level assessment;
- Rwanda and East Africa at large
- Knowledge Product on CAP Financial Innovation Challenge (7 Feasibility Studies)
- Whitepaper on Streamlining DRE Aggregation Transactions – Draft
- CAP Action Plans for Rwanda and Uganda;
- Knowledge products related to pilot market development activities in Uganda and Rwanda;
- Knowledge product(s) related to the D-REC Pilot Project in Uganda.
-

Knowledge products related to the CAP's market assessments and action plans had been expected to be completed within 2022 but due to delays in the procurement and contracting of a service provider (TFE/Lime

²¹ https://www.youtube.com/watch?v=1wy_kWqU1iI

Terminal Evaluation of 'the Climate Aggregation Platform (CAP)' project

Group) to undertake this work, and additional delays once the contract started due to the time required to plan and conduct extensive consultations, this work is being completed in Q1-Q2 2023.

Upcoming knowledge products include: Reports from events, Market Assessment Framework, Market Assessments & Actions Plans for Uganda & Rwanda + High-Level Market Assessment for East Africa, Whitepaper on Streamlining DRE Aggregation Transactions and Knowledge Product on CAP Financial Innovation Challenge (Feasibility Studies).

Target 1.3: 4 well-attended meetings held annually

The last EOP target of this outcome (the creation of a global working group meeting at least 4 times a year) was revised following the MTR recommendations to target the establishment of a global network of relevant stakeholders in financial aggregation instead. In addition to the many stakeholders' consultations undertaken by the project both at global and national levels for the different project activities, the CAP has also continued to engage with relevant task forces and global working groups related to financial aggregation of low carbon small scale assets. This includes the ongoing work with the D-REC initiative with whom an MoU was signed, to develop a pilot project in Uganda.

The CAP identified and established contact with several relevant actors in the financial aggregation and energy sectors both directly or with support from the Climate Bonds Initiative and the service provider TFE/Lime Group. This includes:

- As part of the development of market assessments, the service provider, TFE/Lime Group produced a database of stakeholders from the supply and demand sides, as well as independent experts, government officials, investment funds and support programmes in East Africa, Uganda, Rwanda and globally. This includes approximately 480 organizations and individuals. TFE/Lime Group reached out to over 160 of these stakeholders and managed to undertake over 70 interviews. Further consultations are expected as part of the remaining market development work.
- 38 interviews undertaken with CBI as part of the joint flagship report consultations.
- Following the signature of an MoU with the private sector entity South Pole Carbon Asset Management Ltd. (South Pole) to formalize UNDP's engagement with the D-REC Initiative (South Pole acts as the initiative's secretariat). The CAP has been working closely with the D-REC Initiative to develop a pilot project in Uganda;
- The D-REC initiative includes the participation of a wide range of organizations including UKAid, Shell Foundation, Signify Foundation, Good Energies Foundation, EnAccess, GIZ, the Swiss Agency for Development, the Energy Web Foundation, Odyssey, BBOXX, Candi, PowerGen, MPower, responsAbility, IFC, Persistent, Roots of Impact, VERRA, I-REC Standard, GOGLA, AMDA, SEforAll. (Evidence: Press release Aug 2021)
- The CAP has also interacted with the Global Off-grid Lighting Association (GOGLA) who manages the PAYGO PERFORM project which seeks to develop and implement standardized KPIs to measure solar PAYGO companies' performance and to set up a centralized reporting infrastructure. The CAP was notably invited by GOGLA to take part in the 'Virtual Boardroom C: Scaling the sector through climate finance' at the Global Off-Grid Solar Finance Summit (9th Dec 2021). (Evidence: Participant Briefing; 2 write ups from GOGLA)
- In recent months, the CAP has also been engaging with other initiatives such as the Milken Institute (Africa Securitization Alliance) and the Cities Climate Finance Leadership Alliance (Members include AFD, AIIB, CAF, CIF, ADB, EIB, IDB, KFW, GIZ, etc.). One of the focus areas of this Alliance is financial aggregation. The CAP team has been engaging with its secretariat the Climate Policy Initiative to identify potential areas of collaboration.

Outcome 2 Financial closure of three financial aggregation transactions for small scale, low carbon energy activities in developing countries.

Terminal Evaluation of 'the Climate Aggregation Platform (CAP)' project

Outcome	Indicator	Baseline	End of Project Target	Status at the TE
Component/ Outcome 2 <i>Financial closure of three financial aggregation transactions for small-scale, low carbon energy activities in developing countries</i>	Financially closed CAP showcase transactions	0 CAP showcase transactions	4 showcase transactions supported	0 Financially closed CAP showcase transactions.

Target 2.1: 4 showcase transactions supported

At this stage, no showcase transaction has been closed. In light of the findings from the joint UNDP/CBI flagship report on financial aggregation, and upon consultations with management and the CAP Project Board Chair, the project had determined that UNDP's Innovation Challenge modality was the most appropriate to identify and support suitable showcase transactions.

This approach was approved by the Project Board, however the launch of the challenge was delayed by several months due, on one hand, to procedural issues (complexity of the procurement and approval processes, need to wait for the confirmation of the project extension, etc.) and, on the other hand, to the need to revise the approach to more upstream support to innovative financial aggregation structures or models. To this end, the innovation challenge was launched in July 2022. Provided the challenge receives sufficient quality applications, it could lead to the project supporting up to 7 financial aggregation structures and models (potentially leading to showcase transactions in the future), including one in Rwanda and one in Uganda, before its operational closure.

Furthermore, due to the nascent nature of the market and the limited number of real-life financial aggregation transactions in the small-scale, low-carbon energy sector in developing countries to date (As highlighted in the joint UNDP/CBI flagship report 'Linking Global Finance to Small-Scale Clean Energy' and more recently in the preliminary findings of the Uganda and Rwanda market assessments), there is a need for the CAP to work further upstream to address barriers at the design stage so that novel financial aggregation structures and models can be developed that can lead to financially closed transactions or "showcase transactions" in the near future. Since potential pipelines in single countries are still small, multi-jurisdictional transactions could be required to pool together assets across multiple countries. The call was therefore opened to innovations that could take shape in East Africa with a special focus on Rwanda and Uganda. 5 out of the 7 supported solutions target multiple countries in East Africa.

The CAP Project Team developed a detailed concept note for the "CAP Financial Innovation Challenge" (CAP FIC), it included key elements of the challenge:

- The supported outcome is now an Innovative Financial Aggregation Structure or Model (mechanisms, instruments, processes, tools, business, and financing models) documented in the form of a Feasibility Study.
- UNDP will award up to US\$ 40,000 per selected project – US\$ 280,000 will be available to support up to 7 projects.
- The Project must be implemented in one or many developing countries in East Africa – The CAP FIC aims to support at least one project in Uganda and one project in Rwanda.

Terminal Evaluation of 'the Climate Aggregation Platform (CAP)' project

- Promising solutions could be considered for further engagement as part of the Sustainable Energy Hub's financial mechanisms or other UNDP initiatives at the country, regional or global level (e.g., Sustainable Finance Hub).

The CAP Project Team developed the required documents for the challenge, including: Internal Concept Note; Call for Proposal; Guidelines for Applicants; Application Form and Annex 1 – Applicant Declaration; Annex 2 – Budget Template; and Sample Innovation Challenge Agreement.

The innovation challenge was officially launched on 21st July 2022. The application process will be open until 31st August with projects expected to start in November 2022²².

In total 46 submissions were received for the innovation challenge (including 9 late submissions) from around the globe, with very diverse and interesting innovations, and targeting different energy sub-sectors and countries in East Africa. And agreements have been signed with the 7 awardees. Each solution involves a different approach to financial aggregation to help unlock new sources of financing for the clean energy sector, including climate finance. These target different sub-sectors, from off-grid and on-grid solar, mini-grids, productive use appliances, e-mobility to clean cooking, and could be deployed across different countries in East Africa including Rwanda, Uganda, Kenya, Tanzania, Malawi, Ethiopia, Madagascar, Mozambique. Implementation is ongoing – Expected completion of all feasibility studies for the innovative financial aggregation models, by mid-Jul 2023, these are expected to lead to transactions in the near future and to lead to substantial potential impact, co-financing and potential for mobilizing investments²³.

Provided that the CAP FIC is implemented without further delays, the end of project target of '4 showcase transactions supported' in its revisited form (Supporting the development of financial aggregation structures and models that can lead to financially closed transactions or "showcase transactions" in the near future) could potentially process before the project closure – This is contingent on several factors such as the receipt of sufficient satisfactory applications and the outcome of the evaluation and selection process, as well as the level of success of the supported transactions.

Besides the innovation challenge, the project also continued working on the pilot project in Uganda, which aims at supporting a pilot showcase transaction involving the issuance of D-RECs to support the electrification of health facilities. A concept was developed to define the structure and stakeholders' roles and responsibilities in the pilot, and the CAP national coordinator in Uganda actively engaged with the government and other national stakeholders to formalize the pilot, a process which is still ongoing. Considering the progress on the innovation challenge and the additional possible materialization of a showcase transaction before the end of the project through the Uganda pilot.

UNDP has partnered with the D-REC Initiative, a not-for-profit, multi-stakeholder, industry-led initiative, to support the development of a new, internationally recognized, third party-certified, verifiable and tradeable market instrument called a D-REC or Distributed Renewable Energy Certificate.

D-RECs have the potential to become a new financial instrument to aggregate investments in Distributed Renewable Energy projects by tapping into the Renewable Energy Certificates (RECs) Global Market. This could

²² <https://www.undp.org/climate-aggregation-platform/cap-financial-innovation-challenge>

²³ Details of the winners are available [here](#)

Terminal Evaluation of 'the Climate Aggregation Platform (CAP)' project

help crowd-in climate finance and additional investments from the private sector to address the energy access financing gap, helping to accelerate the deployment of DRE in developing countries and achieving SDG 7.

The Uganda pilot will serve as a proof of concept for the issuance and sale of D-RECs as a means to raise additional funds to offset operations and maintenance costs for solar PV systems. UNDP proposes to implement this pilot in Uganda in up to 24 health centers – This includes the 11 health centers electrified by UNDP in 2021. An additional 13 health centers being electrified in 2022 will also be considered for the pilot.

A pilot concept was developed and planning for its implementation has taken place. The CAP National Coordinator in Uganda has undertaken site visits and worked closely with the UNDP Green Energy Team, the Uganda Country Office and the local service provider to gather the required technical data on the sites. The CAP Project Team has worked closely with the D-REC initiative to develop a possible structure for the pilot transaction, defining the different parties' roles and responsibilities and set a workplan for this work.

There were however several operational challenges and delays – In particular, in relation to engagements with the Ministry of Health, but the pilot has received backing from the Uganda UNDP Resident Representative and further support from the UNDP Country Office, also there has been a challenge to identify the appropriate model, structure, and roles of different stakeholders for a potential D-REC transaction. The Uganda National Coordinator is now working with the D-REC secretariat and the Ministry of Health to formalize the pilot – A joint concept note is being developed (a 21-page draft was completed in Jul 2022 and is being finalized. Further progress is expected in the next months. A mission to Uganda took place in September 2022 by the DREC team to meet with the MoH and other stakeholders, and this was joined by the CAP team (the PM and NC).

A possible model was identified that could potentially be scaled and replicated – The MoH would engage a service provider to deliver ongoing O&M services for a pre-determined duration in exchange for the rights to issue and sell D-RECs or other such certificates to an off-taker. The service provider would cover the O&M costs (in part or fully) through the sale of such certificates. UNDP's role would be to act as a convener and provide support the MoH in this process as necessary.

The CAP team worked with the D-REC team and the CO to advance this updated pilot approach however there have been further delays, in part due to challenges in coordination with the MoH in recent months as Uganda was experiencing an Ebola outbreak – Both the CO team and the UNDP Green Energy Team have been experiencing these coordination challenges.

While there have been challenges in developing a pilot, the CO as well as other stakeholders remain very interested in further pursuing this work. The CAP team is working with the CO to define a way forward beyond the CAP project. The CO have extended the NC's contract so he can continue supporting their work on energy related matters and remain involved in this process for the time being.

Provided that the D-REC pilot is implemented without further delays it could lead to a financially closed showcase transaction in 2023. This is contingent on the Ministry of Health's active involvement in the pilot and addressing some open questions (e.g., the flow of funds from D-REC transactions) without further delays.

If the pilot project is conclusive, the model could potentially be replicated or expanded to more healthcare facilities or other kinds of public facilities in Uganda and other countries. The CAP Project Team is exploring options for expanding this work in Uganda and other countries.

Terminal Evaluation of 'the Climate Aggregation Platform (CAP)' project

Outcome 3 The market architecture and environment for replication and scale-up of financial aggregation transactions for small-scale, low-carbon energy is enhanced in three developing countries.

Outcome	Indicator	Baseline	End of Project Target	Status at the TE stage
Component/ Outcome 3 <i>The market architecture and environment for replication and scale-up of financial aggregation transactions for small-scale, low-carbon energy is enhanced in three developing countries</i>	CAP national working groups	0 meetings annually	4 well-attended meetings held annually in each in-country initiative	4 National Working Group meetings in Uganda (including one virtual workshop) 0 National Working Group Meetings in Rwanda.
	Endorsement letters by relevant stakeholders conveying positive assessment of impact of CAP's market development activities	0 CAP market development activities	3 endorsement letters in each in-country initiative	One letter of endorsement was obtained from the Ugandan Ministry of Energy and Mineral Development (MEMD) for the CAP's support in relation to the National Renewable Energy Platform (NREP), the National Working Group and its upcoming market assessment. As further market development activities are completed over the next weeks/months additional letters will be provided from other relevant stakeholders in each country. No letters have been secured in Rwanda to date.

Target 3.1: 4 well-attended meetings held annually in each in-country initiative

Progress under this outcome was mostly apparent in Uganda, where a CAP national coordinator was finally contracted mid-September 2021 and has been actively engaging with national stakeholders since then. After taking several months, one outcome of these consultations was the agreement that the national working group should be embedded within an existing platform, namely the newly formed "National Renewable Energy Platform" (NREP) instead of becoming a bespoke, separate working group. The project has therefore been supporting the government to operationalize the NREP and a first meeting took place in June 2022 with 120 participants, which included a breakout session on finance organized by the CAP.

In order to advance on other market development activities in the country (e.g., the CAP market assessment), the CAP team organized a virtual stakeholder workshop together with TFE/Lime Group on March 29th, 2022. The first NREP meeting finally took place on June 8th, 2022 – With support from the CAP and the Uganda Country Office a full day event with 120 participants took place in Kampala. The event included breakout sessions for the different technical working groups, including one on finance organized by the CAP – With 17 in-person participants in addition to the UNDP and TFE/Lime Group teams. During this meeting the CAP and its market development work were presented, and feedback was sought on the market assessment work undertaken by TFE/Lime Group.

While considerable time and efforts were required to put these structures in place in Uganda, this work helped position the CAP and the UNDP Country Office as key players within NREP and in the sector and has laid the foundations for further activities.

Terminal Evaluation of 'the Climate Aggregation Platform (CAP)' project

Notably, a workshop on innovative finance jointly hosted with UNCDF and the MEMD/NREP took place in 2022. The UNDP Country Office and the CAP worked with the MEMD to help organize the Renewable Energy Conference in 2022 – With a session on renewable energy finance co-organized by the CAP.

A workshop on Innovative Finance on 21st September 2022 in Kampala (Approx. 50 participants). The workshop is organized jointly by the CAP, UNCDF and the Ministry of Energy and Mineral Development (MEMD) as part of the NREP. It will include a session on D-RECs and one by TFE/Lime Group on the CAP's Market Assessments, Action Plans, and market development work.

As part of the CAP's pilot market development activities, a workshop was organized on 28th Feb 2023 in Kampala with approx. 72 participants. The workshop included a presentation on the findings from the TFE work and sessions offering targeted knowledge for DRE companies and investors respectively as well as cross-learning.

On the other hand, no significant progress has been achieved in Rwanda on the creation of a national working group since the two subsequent attempts to recruit a CAP national coordinator were inconclusive (due to a lack of suitable candidates). The project has alternatively recruited an international consultant instead in 2022, who will conduct missions in Rwanda to advance the project activities.

The PMU has continued to engage with the Rwanda CO's focal point on a frequent basis. Work on the market assessment for the country, including consultations with key stakeholders has also taken place in 2022 – The virtual workshop organized by TFE in March 2022 included only 2 participants from Rwanda.

Meanwhile however, the market assessments and action plans in East Africa, with focus on Rwanda and Uganda is in its final stages, and significant consultations were conducted in both countries in 2022, which still allowed to start engaging with the national stakeholders in Rwanda and better understand the state of the market despite the absence of a CAP national coordinator.

Work on the market assessment is ongoing and is expected to be completed within Q1-2 2023 (Draft market assessments for Uganda and Rwanda were submitted in July and August 2022). Once reviewed the final versions of the market assessments will be published and disseminated broadly – Different options are being considered for the launch of these publications including a webinar and/or side-events in conjunction to an international conference. Work on the Action Plans is also expected to be finalized in Q1-2 2023 and lead to pilot market development activities taking place after. A workshop was organized on 28th Feb 2023 in Kampala with approx. 72 participants. The workshop included a presentation on the findings from the TFE work and sessions offering targeted knowledge for DRE companies and investors respectively as well as cross-learning.

Due to the nascent nature of financial aggregation markets in the region as highlighted in the joint UNDP/CBI flagship report 'Linking Global Finance to Small-Scale Clean Energy', there is a need to broaden the scope of the CAP NWGs to discuss clean energy finance more broadly. Some of the precursors to financial aggregation involve addressing more general market barriers related to access to finance – There is interest for financial aggregation but as part of a wider conversation about financing clean energy.

Target 3.2: 3 endorsement letters in each in-country initiative

As far as endorsement letters are concerned, only one letter of endorsement was obtained from the Ugandan Ministry of Energy and Mineral Development (MEMD) for the CAP's support in relation to the National Renewable Energy Platform (NREP), the National Working Group and its upcoming market assessment. As further market

Terminal Evaluation of 'the Climate Aggregation Platform (CAP)' project

development activities are completed over the next weeks/months additional letters will be provided from other relevant stakeholders in each country. A possible endorsement letter from the MEMD in Uganda for the CAP's support to the organization of the e-mobility event in Kampala in November 2022 is expected.. No letters have been secured in Rwanda to date.

TFE/Lime Group then completed an initial market mapping of East Africa, Uganda, and Rwanda. This included a database of stakeholders from the supply and demand sides, as well as independent experts, government officials, investment funds and support programmes. It also included information on past transactions and investment flows in the sector. This information would be later integrated into the market assessments and help the service provider identify and prioritize relevant stakeholders for consultations. The database in itself is a valuable tool for the CAP project and will be used to identify relevant stakeholders for future activities.

The service provider developed and refined a framework as a basis for the market assessments, together with a guidance note. It includes a comprehensive Excel tool with over 150 indicators to assess political, economic, social, technological, legal, impact and other sector specific factors (off-grid solar, mini-grids, captive power, and e-mobility). The tool has also been updated as it was applied to develop a high-level assessment for East Africa.

The tool can be used to provide a rapid comparison of the high-level investment risks and aggregation-specific market barriers of various countries. It allows the user to quickly drill down to the specific factors that result in these risks and barriers. It also provides quick access to the underlying data for each country to assist in the design of targeted interventions – A demo of the framework for the UNDP Energy team took place in early July 2022 and the service provider has continued to make improvements to the tool. This framework is being applied in Uganda and Rwanda but can be used to conduct similar assessments in other countries, regions, and sectors (or sub-sectors) by UNDP (or others).

Efficiency (*)

Assessment element	Rating
Efficiency	Moderately Satisfactory (MS)

The main issues examined in relation to efficiency were the length of the project implementation period, and to what extent the results have been achieved with the least costly GEF and other resources possible.

Timeframe: The planned starting date of the CAP project was initially January 2017 according to the prodoc, the actual starting date of the project on 18th July 2017 (i.e when the prodoc was officially signed). The CAP was designed as a three-year project with end date 17th July 2020. The CAP project has gone through multiple extensions due to operational and structural challenges, absence of decision-making mechanisms and internal disagreements in the initial phase of the project (i.e before restructuring) as explained under 'project implementation' section. The first extension was based on the project restructuring and re-launch of the project in 2019 after the MTR, the project board approved a 24-month extension at no cost in its meeting on 22 June 2020. A new PM was hired to resume the implementation of the CAP in December 2020, just over 18 months were left on the project with about 70% of the budget remaining unspent. The extension is justified by the fact that the project was technically put on hold for almost 2 years and more time would be needed to implement activities. This extension has meant that the new end date to be July 2022.

On May 12th, a second extension was granted by the project board for 8 months until 17th March 2023,. A third extension was also approved by UNDP in January 2023 for 4 additional months until July 2023 to allow the

Terminal Evaluation of 'the Climate Aggregation Platform (CAP)' project

completion of the project activities and key deliverables by the consultants and the CAP Financial Innovation process.

In conclusion, the CAP project was extended three times with total of 36 months, a double of its original timeframe. It should be noted that the root causes for the delays are essentially design issues (unrealistic expectations for project completion by 3 years) as well as operational and structural challenges that the CAP had gone through including disagreement with partners, absence of decision making mechanism, internal disagreements, difficulties in recruiting staff and consultants, and then the COVID-19 pandemic – the details of these issues are explained in the 'Project Implementation' section of this report.

Management: The UNDP DIM modality is extremely appropriate to the context and is in fact the option for most of the UNDP projects at the global level; within the limitations of the local context, management was effective in engaging the large number of consultancies envisaged, ensuring completion of activities, and keeping the picture together.

The CAP has operated for the most part with a part-time Project Manager (PM) (75%), a 50% PA and only one National Coordinator, and recently the PM position was changed to allow more time (but not a full-time basis yet) to be able to cope with the demand. The current PM was rewarded with the trust of stakeholders and is viewed as a practical manager, able to get things done and engage with partner effectively.

Effectively, the quality of the consultants' output for the flagship report and market assessments is satisfactory, but needs to be published and disseminated. It also should be noted that climate aggregation domain is unique and highly technical, and relevant technical expertise are very rare and difficult to find.

Financial management: At the FTE stage disbursements, **US\$ 1,166,938 (60%) of the CAP** Project grant of US\$1,950,000 has been expended, whereas at the MTE stage US\$ 273,510 or 14% were spent. The project spending during the period 2017-2020 (4 years) was total of US\$ 574,658, this is around 28% of the total budget, with bulk of spending took place after the restructuring in 2021 2022 of US\$ 592,278 (30%), and 2022 alone 19% of the total budget was spent, and the remainder for 2023 is US\$ 783,064 and that is 40% of the budget is to be spent in 6 months (i.e until July 2023) which may end up with a case of unspent resources by the end of the project.

Table 4: GEF Budget allocations and expenditures per Component (USD)

CAP Project Outcomes	Budget	2017	2018	2019	2020	2021	2022	Remaining for 2023
OUTCOME 1: Increased awareness, exchange of information and engagement in financial aggregation for small-scale, low-carbon energy activities in developing countries	650,000	36,915	61,671	37,432	27,120	128,203	142,028	216,631
OUTCOME 2: Financial closure of three financial aggregation transactions for small-scale, low carbon energy activities in developing countries	570,000	11,776	45,291	73,221	61,266	45,225	47,655	285,566

Terminal Evaluation of 'the Climate Aggregation Platform (CAP)' project

OUTCOME 3: The market architecture and environment for replication and scale-up of financial aggregation transactions for small-scale, low-carbon energy is enhanced in three developing countries	480,000	14,573	47,582	26,455	8,927	19,539	145,402	217,522
Mid and Terminal Evaluations	73,000	9,689	69	00	00	00	1,400	61,842
Project Management	177,000	7,070	38,875	32,205	9,850	24,632	38,191	26,177
Total	1,950,000	80,022	216,397	169,102	109,137	217,601	374,677	783,064

The project has been audited according to UNDP Financial Regulations and Rules including applying audit and spot check on the project partner CBI. The process identified the issues and these were dealt with accordingly including the issue raised by 'Summary of Assurance Significant Issues and Action Plan - 2021-2022' report that the IP (CBI) claimed staff costs using a flat daily rate method which did not reflect the actual costs of the employees, and CBI submitted signed clarifications with an explanation that satisfied the spot check needs.

Financial approvals, budget revisions and procurement follow the regulations and are supported by the RTA. Management tools utilized are those used by UNDP such as Atlas and result tracking is kept through a simple excel system.

Sustainability: financial (*), socio-economic (*), institutional framework and governance (*), environmental (*), and overall likelihood (*)

Assessment element	Rating
Institutional Framework and governance	Moderately Likely (ML)
Financial	Moderately Unlikely (MU)
Socio-economic	Likely
Environmental	Likely
Overall Likelihood of Sustainability	Moderately Unlikely (MU)

Sustainability of the project is judged by the commitment of the project benefits to continue and replicate beyond the project completion date. The evaluation identifies key risks to sustainability and explains how these risks may affect continuation of the project benefits after the project closes. The assessment covers institutional/governance risks, financial, socio-political, and environmental risks.

Institutional framework and governance: The CAP institutional set up beyond project end date is not clearly defined yet, documented, and communicated with the board. The CAP justified its second extension based on the need for additional time for developing an Exit Strategy for the GEF funded phase of the CAP, the strategy is essentially based on embedding the CAP offering into UNDP's new Sustainable Energy Hub (SEH). The SEH could be a gateway for the CAP to expand access to the Sustainable Energy Hub's financial mechanisms or other UNDP initiatives at the country, regional or global level. Although sounds like a strategic option for the CAP, currently the details of the how this integration could happen and how CAP operations are going to be maintained and funded remain undefined. The project team noted that the exit strategy is still under development as the project's operational closure is in July 2023.

Terminal Evaluation of 'the Climate Aggregation Platform (CAP)' project

Financial aggregation structures and transactions could require considerable time to take shape, likely extending beyond the CAP's planned operational closure. Therefore, focusing on the development of novel structures and models that can be later deployed, can ultimately increase the chances of achieving the project's targets, albeit beyond the initial GEF-funded phase of the CAP – through the Sustainable Energy Hub and/or other UNDP initiatives (e.g., Finance Sector Hub).

Furthermore, currently the project management team is covered by the GEF resources, key project personnel are not guaranteed to continue beyond the GEF funding, in fact, some key project management team has already moved on to another projects in light of the ambiguity around funding their position after the project is operationally closed. The CAP team is currently working with the Rwanda CO and the UNDP Rome Centre to hire a national energy and finance expert for the country office with support from the CAP and the Italy-UNDP Energy partnership. This role would replace that of the national coordinator and would last beyond the CAP Project. This consultant would work to build on the CAP's initial work to expand the COs work on energy finance for a period of at least 12 months. This approach is part of the CAP's sustainability and exit strategy for Rwanda. This process is ongoing.

Financial risks: The intent is that the CAP, based on the prodoc, is to gain further funding and operate indefinitely, past the initial funding provided by this project. The activities set out in the project document are envisioned as an initial phase of the CAP, with the GEF providing seed-funding. Subsequent phases, for example, could include the addition of further in-country initiatives beyond the initial activities funded by the project. The architecture of the CAP is meant to be scaled in this way.

To date, and for understandable reasons, the CAP didn't have additional funding lined up to support CAP future activities. The CAP management has been focussed on delivering the project activities in attempt to make up for the delays witnessed at the beginning, and project management resources have been totally dedicated to overcome the operational and structural challenges, with no resource mobilisation outcomes achieved for the future. This establishes an unanswered question as to how the CAP operations are going to be covered beyond the GEF seed funding.

The prodoc anticipated that a similar model to that taken by CBI could be applied by the CAP, by which funding the CAP in the future could be covered in part by private sector contributions, such as a membership fees. At this stage, this doesn't seem possible in the short term, unless the CAP demonstrates its value-add by showcasing transactions on the ground, it would not be possible to attract private sector funding for the CAP operations.

Socio-economic: Assessing the socio-economic risk for the CAP requires to make distinction between CAP's global and local offers, as the scale of the risk varies among these offers and also vary from one country to another. At the global offer level, given it is focus on awareness raising, knowledge management and a global working group, there are no major social risk anticipated at that level. The CAP has produced number of knowledge products and made adequate efforts to disseminate the produced knowledge so far (see details under effectiveness). The global offer is rated as low risk.

At the local offer level, the market assessments & action plans undertaken by TFE Africa for Uganda and Rwanda include an assessment of potential social and environmental risks linked to financial aggregation of small-scale, low-carbon energy assets in the identified sector(s) and sub-sector(s), in the given markets. .

Terminal Evaluation of 'the Climate Aggregation Platform (CAP)' project

As there is no specific showcase transactions achieved so far, it is not possible to assess the socio-economic risks on individual initiatives at the local level, however, a full SESP will be completed at the time each in-country initiative is confirmed, and the Project Manager will ensure that potential social and environmental issues are identified and addressed.

Generally speaking, as the CAP contributes to the renewable energy deployment, this will have the potential to increase income, as well as to contribute to industrial development and job creation. Opportunities for positive socio-economic impact exist in each stage of the solar energy projects, including project planning, equipment manufacturing and installation, connection to grid, operation and maintenance.

Please refer to the ownership issues noted below for the political risks.

Environmental risks: Global environmental benefits of small-scale, low carbon energy projects are obvious, as the employment of these technologies for energy generation reduce GHG emissions from fossil energy sources they replace. The global CAP offer is centred on the development of knowledge, tools and methodologies to promote climate financial aggregation which has no major environmental impacts can be foreseen.

Country ownership

According to the project document, the CAP in country offer was supposed to start in Kenya, Mexico and India with intent is to add further in-country initiatives, beyond these initial three over time, subject to additional funding. The project document identified specific opportunities in those countries as potential to work with for climate aggregation, however, due to the significant temporal gap between the design stage (2016) and actual delivery stage 2020, these projects in these countries were no longer valid for CAP interventions.

As part of the restructuring and project document addendum, new countries were decided to be targeted by CAP for in-country offer, these are Rwanda and Uganda. The project document addendum also re-affirmed the intent is to add further in-country initiatives and broaden the geographic scope, possibly to India and Latin America over time and subject to additional funding.

At the country level, the ownership of CAP activities varied between Uganda and Rwanda, the CAP's engagement with the 'National Renewable Energy Platform' (NREP) in Uganda is a contributor factor for a sustainable ownership of CAP's product at the country level, and the fact that CAP agenda is embedded into an existing platform (i.e NERP) rather than a standalone working group adds an extra layer of sustainability and ownership.

It wasn't the same case in Rwanda where no working group established for CAP nor an existing platform was used to incubate the CAP activities until this point, which meant limited engagement and ownership at the country level.

It should also be noted that the level of ownership by the UNDP Country Offices also varies, and as noted above in this report that the CAP's engagement with the COs in targeted countries has been challenged with number of issues, including clarity on the role of the CO in CAP, CO's capacities and resources for effective participation in the CAP and level of CO interest in CAP's outcomes.

Cross-cutting Issues

The prodoc recognises that women can play an important role in small-scale, low-carbon energy: first, at the household level, as the recipients of energy services, and as energy managers in the home; second, at the business

Terminal Evaluation of 'the Climate Aggregation Platform (CAP)' project

and finance level, where women can act as entrepreneurs in energy companies, and/or be employed in the finance industry.

Gender equality has been incorporated into the project design. The number of direct beneficiaries was envisaged to be disaggregated by gender as co-benefit of GEF investment, however, given that there are no transactions concluded so far, this remain reported as zero. The project manager was supposed to be the designated focal point for gender in the project, accountable for all project matters related to gender. The CAP performed a gender analysis as part of the market assessments and CAP action plans. Where appropriate gender aspect is being incorporated into the CAP's selected barrier-removal activities.

Other cross-cutting issues were not incorporated into the design and implementation of the project and the impact on human rights, poverty and marginal communities could have received greater attention during the design and implementation of the project.

GEF Additionality

GEF additionality, defined as the additional outcome (both environmental and otherwise) that can be directly associated with the GEF-supported project. In December 2018, the GEF Council approved 'An Evaluative Approach to Assessing GEF's Additionality'. GEF IEO classifies additionality into six factors: Specific Environmental Additionality; Legal/Regulatory Additionality; Institutional Additionality/Governance additionality; Financial Additionality; Socio-Economic Additionality; and Innovation Additionality²⁴.

As far as the CAP is concerned, the CAP is designed to identify and remove financing barriers for aggregating small-scale, low-carbon projects, and the additionality of the GEF would be centered around providing an incremental cost which is associated with transforming a project into one with global environmental benefits by achieving greater flows of financing to small-scale, low-carbon projects in developing countries. The bottom line for this additionality that so far there is no showcase transactions that totally materialized; however, the CAP helped to raise awareness, identify the market barriers and build the capacities for aggregating climate finance. The showcasing of transactions is believed that it is going to eventually occur, but it is a time issue.

The special environmental benefits from this project are examined under the assessment of the project objective, currently no GHGs avoided that can be directly attributed to the CAP.

Catalytic Role / Replication Effect

The project does not have an explicit exit strategy that would outline steps and activities to ensure sustainable management of the achieved results by the project stakeholders after the end of the donor support. While the CAP market is nascent and growing, the CAP didn't define yet as how to open up the CAP offer to other countries and where the CAP is going to be funded from beyond the GEF.

Rather than approaching the market assessments, action plans and market development as a one-off exercise, these were developed in view of replication. For instance, the development of a framework and tool for market assessments together with the relevant guidelines was added to the process so that the approach can be easily replicated in other countries and regions. The exercise was in fact also expanded to include a high-level assessment and action plan for East Africa at large so as to set a picture to inform possible further interventions regionally beyond the two pilot countries.

²⁴ GEF -IEO, An Evaluative Approach to Assessing GEF's Additionality, 2018.

Terminal Evaluation of 'the Climate Aggregation Platform (CAP)' project

The concept of the CAP FIC was developed so that it can contribute to building the new SEH's offer on financial mechanisms and to be connected to other relevant UNDP initiatives. The CAP FIC process and approach has been documented and the PM is working with procurement to capture lessons learnt from the process and recommendations for expanding and replicating this approach within the NCE.

Based on the findings from Market Assessments, Action Plans and consultations, TFE has developed a menu of pilot activities to be undertaken as part of the CAP with consideration for the limited budget and timeline including development and dissemination of a White paper on streamlining DRE aggregation transactions. And raising awareness about areas of improvement for DRE companies and offer assistance and about DRE among local and international financial institutions at the country level.

In Rwanda, the project developed a concept to expand the CAP's work in the country which has highlighted the opportunity to engage with the newly established national facility 'IREME Invest', a one stop center for green and sustainable investment. The CAP is also working with the CO and the UNDP Rome Center to hire an energy and finance expert to build on this work to identify and develop energy investment opportunities in the country with funding from the Italy-UNDP Energy partnership.

In Uganda, the CAP has also supported the CO in developing its energy offer notably contributing to the development of new concepts (including an e-mobility project concept). The PM is also supporting the CO on new opportunities related to energy finance, notably an engagement with the EIB on the development of a concept for financing the electrification of social infrastructure (ongoing as of March 2023).

Conclusions, Recommendations & Lessons

Main Findings & conclusions

Project results: The overall objective of the CAP is to “promote the scale-up of financial aggregation for small-scale, low-carbon energy assets in developing countries”. Since all objective-level indicators (financial value of investments, GHG emissions reduction and number of beneficiaries) depend on the completion of showcase transactions which have not materialized yet, there is no progress at this stage towards the objective-level EOP targets, and the overall objective is therefore off track. Despite significant progress in the last two years of the project time, it is unlikely this status of the objective is going to change significantly in the short term.

Studies conducted by the project revealed that the financial aggregation market is still at a very nascent stage in developing countries (including in East Africa, the region of interest for the CAP's in-country activities) and still requires upstream work to be conducted to address barriers at the design stage before showcase transactions can effectively materialize such as regulatory frameworks reform at the country level. This prompted the project to adopt a minor amendment to the project objective and focus on supporting innovative structures and models (which may later lead to showcase transactions) instead of supporting showcase transactions directly, given the immaturity of the market. In total 46 submissions were received for the innovation challenge, with very diverse and interesting innovations, and targeting different energy sub-sectors and countries in East Africa. And agreements have been signed with the 7 awardees. Each solution involves a different approach to financial aggregation to help unlock new sources of financing for the clean energy sector, including climate finance.

Terminal Evaluation of 'the Climate Aggregation Platform (CAP)' project

Based on the fact that no showcase transactions achieved so far, and therefore associated benefits at the objective level didn't materialize, **progress towards objective, expected outcomes and impacts is rated Moderately Unsatisfactory (MU).**

The CAP implemented several awareness activities including the development of the CAP-website which comprises a "CAP Knowledge Library", a one-stop-shop for key publications on innovative financing mechanisms for small-scale clean energy. This includes publications on financial aggregation, securitization, clean energy finance, climate finance, green bonds, investment data, market data, toolkits, RECS / DRECs / PRECs, and PAYGO – A list of over 50 resources was curated by the CAP Project Team.

On knowledge products, the joint UNDP-CBI flagship report "Linking Global Finance to Small-Scale Clean Energy - Financial Aggregation for Distributed Renewable Energy in Developing Countries" was published in 2022 and disseminated through a far-reaching communication campaign. This report analyses potential links between global finance to small-scale clean energy projects in developing countries. The analysis identifies key barriers, market enablers, case studies, insights and recommendations to wider adoption of financial aggregation as a means to enable capital flows at scale toward small-scale low carbon energy initiatives.

Other knowledge products that are currently being developed/finalized include Market Assessment Framework, User Guide and Guidance note – Final draft submitted; Market Assessments and Action Plans for Uganda; Rwanda and East Africa at large (draft); Whitepaper on Streamlining DRE Aggregation Transactions (Draft); Knowledge Product on CAP Financial Innovation Challenge (7 Feasibility Studies).. The CAP identified and established engagements with relevant task forces and global working groups related to financial aggregation of low carbon small scale assets. This includes the ongoing work with the D-REC initiative, with whom an MoU was signed, to develop a pilot project in Uganda.

The CAP Project is finalizing the "CAP Financial Innovation Challenge" (CAP FIC) to promote Innovative Financial Aggregation Structure or Model (mechanisms, instruments, processes, tools, business, and financing models) documented in the form of a Feasibility Study. The CAP will award up to US\$ 40,000 per selected project – US\$ 280,000 will be available to support up to 7 projects. **Considering the above and based on the fact the EOP targets have largely not been met, effectiveness is rated Moderately Unsatisfactory (MU).**

The CAP project design: The conceptual design of the CAP is relevant and appropriate in principle, however, the detailed design of the CAP project comprises major deficiencies including: 1) overly ambitious targets to be achieved in 3 years timeframe, specifically in terms of amount of USD value of financially closed CAP showcase transactions, and subsequently the co-financing and GHGs emission reductions targets; and 2) the accuracy of the assumptions that underpin the project design especially in terms of maturity of the small scale low carbon market, particularly in targeted countries, and stakeholders interest to participate in the CAP activities, especially at the local level.

The CAP relevance: Despite the nascent nature of financial aggregation markets, but the financial aggregation market is holding great potential, promising and evolving sector, which makes CAP strategic relevance to the market needs to increase over time. Also, the CAP is aligned with the SDG7 by helping to unlock capital resources for small-scale, low-carbon energy assets in developing countries and invest in the potential to lift millions of people out of energy poverty, create millions of jobs, help tackle and build resilience to climate change, and contribute to the achievement of the SDGs. **Based on this, the relevance of the project is rated Satisfactory (S).**

Terminal Evaluation of 'the Climate Aggregation Platform (CAP)' project

Adaptive management: The CAP project has been going through number of operational hiccups and structural challenges that required immediate adaptive management measures to be taken effectively. However, in many cases, it has taken the project management so long to respond to the emerging challenges, for example, with differing views within the entire CAP Project team that without an appropriate decision-making apparatus, the management arrangements did not provide any executive powers within the team to render decisions for the CAP Project, even on a pilot basis. This has proven to be a primary cause for the lack of progress of the CAP Project and a major structural challenge particularly prior to the project re-structuring.

The CAP implemented important adaptive management measures including the project re-structuring, revamping the operational modality, re-organising the partnership arrangements and creating effective decision making process. In addition to implementing the innovation challenge as a way to overcome the challenges with UNDP's procurement and partnership modalities in engaging with the private sector. However, there are areas where the CAP project could have been more effective in applying adaptive management measure, specifically by reviewing the key elements of the project design (mainly assumption and targets), and also expediting solutions for the expediting the substantial delays in recruiting national coordinators – for example, recruiting a national coordinator with less technical role and more of coordination role whilst sourcing technical expertise internationally.

Project management: The effectiveness of the CAP in-country offer varied, in Uganda, the CAP's engagement with the National Renewable Energy Platform (NREP) is a contributing factor for a sustainable ownership of CAP's product at the country level, and the fact that CAP agenda is embedded into an existing platform (i.e NERP) rather than a standalone working group adds an extra level of sustainability and ownership. It wasn't the same case in Rwanda where no working group established for CAP nor an existing platform was used to incubate the CAP activities until this point, which meant limited engagement and ownership at the country level.

The design of M&E framework was found adequate and follows the standard M&E template for projects of this size and complexity. The M&E implementation included re-activation of the project board in 2019, regular reporting and tracking of project results and risks and the MTR was delivered in critical time after the project was put on hold for two years with major disagreements among UNDP team and with partners, in this sense, the MTR was instrumental to help resetting the CAP project, and therefore **the overall assessment of the M&E is Satisfactory (S).**

UNDP implemented the project using the direct implementation modality, where UNDP is responsible for the overall implementation and delivery of the project and ensures that the project objectives are met. UNDP performed quality assurance, oversight services, audit, and risk monitoring and management in line with the UNDP rules and regulations. Also, UNDP organized procurement events, expert recruitment, and financial management in line with the UNDP rules and regulations. Therefore, the **Overall Quality of Implementation/Oversight and Execution is rated Satisfactory (S).**

Sustainability: The CAP institutional set up beyond project end date is not clearly defined, documented and communicated to the board. The CAP exit strategy is essentially based on embedding the CAP offering into UNDP's new Sustainable Energy Hub (SEH). The SHE could be a gateway for the CAP to expand access to the Sustainable Energy Hub's financial mechanisms or other UNDP initiatives at the country, regional or global level. Although sounds like a strategic option for the CAP, currently the details of the how this integration could happen and how CAP operations are going to be maintained and funded remain undefined.

Terminal Evaluation of 'the Climate Aggregation Platform (CAP)' project

The intent is that the CAP, based on the prodoc, is to gain further funding and operate indefinitely, past the initial funding provided by this project. The activities set out in the project document are envisioned as an initial phase of the CAP, with the GEF providing seed-funding. Subsequent phases, for example, could include the addition of further in-country initiatives beyond the initial activities funded by the project. The architecture of the CAP is meant to be scaled in this way.

To date the CAP didn't have additional funding lined up to support CAP future activities. The CAP management has been focussed on delivering the project activities in attempt to make up for the delays witnessed at the beginning. And project management resources have been totally dedicated to overcoming the operational and structural challenges, with no resource mobilisation outcomes achieved for the future. This establishes an unanswered question as to how the CAP operations are going to be covered beyond the GEF seed funding. **The overall Likelihood of Sustainability is Moderately Unlikely (MU).**

Recommendations and Lessons Learned

Recommendations for remainder of CAP Project and for sustainability of financial aggregation

Given that i) the GEF project under review still has some months left in order to attain some objectives and that ii) the CAP itself is poised to evolve in one form or the other beyond its current funding, this first section provides recommendations on how to best use the remaining project time and promote the sustainability potential of financial aggregation.

1. **Develop and implement a comprehensive exit strategy for the CAP.** The exit strategy should provide a transformational vision for the CAP to move from a project-based approach (pilot mode) into a more strategic ongoing offer for UNDP (CAP 2.0). The CAP strategy should elaborate on transition to a stage beyond the identification of the market barriers and work to barriers removal stage. The strategy should focus on 1) defining the new institutional and governance settings after the GEF-funded phase, this should include defining where the CAP is going to be structured in UNDP, how CAP's offer is going to be embedded in the Sustainable Energy Hub (SEH), and what is the process for identifying and supporting the climate aggregation opportunities in Uganda and Rwanda and beyond; 2) a 3-year work plan defining key activities that the CAP would address; 3) resource mobilisation plan for technical support activities (barriers identification and removal); and 4) a budgeted human resource plan.
2. **Expand and strengthen strategic partnerships spectrum for CAP.** In order for the CAP to meet all of its objectives (and possibly beyond the duration of the project under evaluation), it needs to broaden its network of partners, especially given the fact that financial aggregation may need to be linked with other de-risking mechanisms such as concessional financing, guarantees, subsidies, or tax-exemptions, to name a few²⁵, and this requires strategic partnerships to be established with different financing organisation, including banks and banking agencies within UN system (e.g UNCDF) to facilitate effective engagement with the private sector.
3. **Undertake research to map the various financing partners, tools, and instruments and identify entry points for the CAP to inform short term and medium priorities for the development of financial aggregation.** In the first instance, a deeper dive is required into why DFIs, whose financing mandates are typically broad, aren't providing more upstream grants and equity capital to crowd in private debt²⁶. This could also include detailed mapping of existing initiatives related to the finance and identify entry points for the CAP.
4. **Establish a CAP advisory board to replace the existing GEF-project board** to serve as a guiding platform for future CAP interventions, identify opportunities for CAP and strengthen CAP partnerships strategy. The new

²⁵ Linking Global Finance to Small-Scale Clean Energy - Financial Aggregation for Distributed Renewable Energy in Developing Countries

²⁶ This is also recommended by the UNDP-CBI report on Linking Global Finance to Small-Scale Clean Energy - Financial Aggregation for Distributed Renewable Energy in Developing Countries

Terminal Evaluation of 'the Climate Aggregation Platform (CAP)' project

advisory board could be expanded beyond the boundaries set by the GEF project and include international partners that are likely to contribute actively to the CAP activities.

5. **Establish a global Community of Practice (CoP) for the development of financial aggregation through maintaining engagement with the global network beyond the project timeframe.** The network would have a critical role in achieving the CAP objective (i.e promoting aggregation of small-scale and low-carbon investments), and this network can continue to serve as a global 'community of practice' platform for climate aggregation under the CAP leadership. The engagement process needs to be supported by a clear communication strategy and regular engagement (via webinars), and the role of the CoP may be extended beyond financial aggregation, to look at other innovative finance as well as the more general barriers that need to be addressed to tackle the energy access financing gap.
6. **Improve the design of future GEF projects,** UNDP should ensure that the project designers undertake a careful assessment of the potential provision of global environmental benefits from projects at this scale within short period of time. This includes 1) the need to be realistic in setting project indicators and targets at the level of the project objective in terms of what a GEF project can actually achieve during the typical relatively short implementation period, 2) validating key assumptions in the project theory of change (the maturity of the market in case of the CAP), and 3) stronger implementation arrangements with clarity on roles and responsibilities with implementing partners and stakeholder particularly at the local level (in case of a global project).
7. **UNDP should ensure that the Mid-Term Review of GEF projects includes a careful assessment of the targets,** and, wherever necessary, proposes the adjustment of the targets to realistic and achievable values in line with the GEF Guidelines on The Project and Program Cycle Policy²⁷. Although the MTR identified some corrective actions in the indicators' wordings, it did not propose adjustment to more realistic targets.

Lessons Learned

Sustainability of a project's outputs and benefits starts from the design stage: This evaluation discusses number of sustainability issues with the CAP, and the evaluation demonstrate how instrumental sustainability can be towards achieving the broader goals. Indeed, we cannot afford waiting until after activities are implemented to consider sustainability, it is important to learn that planning for a sustainable outcome starts from the early beginning of the design stage of a project. A good project design that answers the question of "what next?" and "so what?", response to these questions will shape a good understanding of sustainability strategy. Although the CAP project design provided some insights in terms of how the CAP is going to continue beyond the GEF funding phase, these sustainability elements seem to have dissolved along the way, and the project resources were focussed on the catching up what has been missed in the first two years with little done so far on the long-term vision.

Aiming for 'too big too soon' makes the project design appear attractive, sometimes at the expense of feasibility. Experience from the CAP project shows the importance of setting realistic project indicators and targets at the level of the project objective in terms of what a GEF project can actually achieve during the typical relatively short implementation period. The project struggled in reporting on the 'too ambitious' targets set and exerted efforts and resources into justifying why those targets were not achieved during the six years. 'Aiming for too big too soon' makes the project design appears attractive but in fact not realistic and not applicable. Realistic project design makes everybody's life easier during the implementation and after, and opportunities to bring the project back on the realistic track are not to be missed, such as MTR, inception and prodoc addendum.

²⁷ See 'Major Amendment' section - page 55 of the GEF Guidelines on The Project and Program Cycle Policy. Available [here](#).

Terminal Evaluation of 'the Climate Aggregation Platform (CAP)' project

The role of the UNDP COs is essential in implementing global projects. Country Offices (COs) are clearly the entry point to access local stakeholders and to get strategic guidance on 'what works' in the local context. The CAP project is a perfect example on how influential the country office could be in facilitating activities on the ground. To this end, global projects must engage with the country office early on, starting from the design stage, define and document roles and responsibilities and engage the CO in the strategic decision-making process for the project.

It is a learning journey for everyone: For complex development issues, like the one that CAP is dealing with, there is no off the shelf solutions that can be applied as "one size fits all". CAP solutions are, and must be, context-driven and this requires building specific solutions to specific needs on the ground. This inevitably means that there will be success as well as hiccups along the journey, it is important though to capture, and learn from, successes and failures. The vision of the CAP is a long-term one, and this makes the CAP perfectly positioned to demonstrate global leadership the climate aggregation learning journeys, and establish a global community of practice for this learning purpose.

Adaptive management is a key – the experience from the CAP project shows good practices in implementing effective adaptive management to overcome procurement issues when it comes to engaging with the private sector in a capacity other than a supplier. The innovation challenge that was developed as an adaptive measure to enable effective engagement with the private sector, the process of developing the challenge was not a straightforward one, it needed the project management team to partner with the specialised procurement teams in order to set up and document the process appropriately taking into account the legal advice. The project team is currently working on documenting that process for potential replication in the future.

Annexes

TE ToR (excluding ToR annexes)

Terminal Evaluation Terms of Reference (ToR) Template

for UNDP-supported GEF-financed projects

BASIC CONTRACT INFORMATION

Location: Home-based

Contract starting date: 1st December 2022

Type of Contract: Individual Consultant

Assignment Type: Short-term consultancy

Languages Required: English

Starting Date: TBD (Immediately after Concluding Contract Agreement)

Duration of Initial Contract: 3 months

Expected Duration of Assignment: 20 working days spread over a period of four calendar months

BACKGROUND

1. Introduction

In accordance with UNDP and GEF M&E policies and procedures, all full- and medium-sized UNDP-supported GEF-financed projects are required to undergo a Terminal Evaluation (TE) at the end of the project. This Terms of Reference (ToR) sets out the expectations for the TE of the medium-sized project titled 'The Climate Aggregation Platform for Developing Countries' (PIMS 5749) implemented through the UNDP HQ. The project started on the 18th July 2017 and is in its 5th year of implementation. The TE process must follow the guidance outlined in the document '[Guidance for Conducting Terminal Evaluations of UNDP-Supported, GEF-Financed Projects](#)'

2. Project Description

The [Climate Aggregation Platform \(CAP\)](#) is a Global Environment Facility (GEF)-funded project implemented by UNDP's Bureau for Policy and Programme Support (BPPS), Nature, Climate and Energy Unit, which, in partnership with the Climate Bonds Initiative seeks to promote the scale-up of financial aggregation for small-scale, low-carbon energy assets in developing countries.

The CAP is a flagship initiative of the Sustainable Energy Hub to support the structuring and deployment of innovative business models and financial mechanisms to accelerate energy access and the clean energy transition.

The CAP aims to advance and raise awareness for innovative solutions to market barriers for financial aggregation – with the goal to increase access to low-cost financing for low-carbon energy. In so doing, the project can contribute to improving the lives of people in developing countries, bringing about affordable, reliable and clean energy.

Terminal Evaluation of 'the Climate Aggregation Platform (CAP)' project

[Financial aggregation](#) can be generally understood as a process in which multiple assets are bundled together, which then receive financing, or refinancing, from investors on the basis of the future cash flows from the assets. Financial aggregation for small-scale, low-carbon energy can take a variety of different forms. The CAP will seek to take a flexible approach to financial aggregation, tailoring its activities to the particular market context and market maturity in the developing country.

Within the small-scale, low-carbon energy universe, the CAP is agnostic with regard to technology sectors (e.g., solar PV, energy efficiency, electric mobility) and business models. In practice, the CAP may initially support certain technologies and business models in particular geographic markets, for example PAYGO solar, due to their relatively advanced or promising qualities.

The CAP's activities and value proposition are formulated in terms of a global offer (global awareness raising, knowledge management products and global network) and an in-country offer (showcase transactions and market development activities).

The GEF has provided initial seed-funding to establish the CAP in the form of an initial USD 2 million grant. UNDP is the project implementing entity and the Climate Bonds Initiative (CBI), as a Responsible Party to UNDP, is implementing specific pre-identified activities.

3. TE Purpose

The TE report will assess the achievement of project results against what was expected to be achieved and draw lessons that can both improve the sustainability of benefits from this project, and aid in the overall enhancement of UNDP programming. The TE report promotes accountability and transparency and assesses the extent of project accomplishments.

DUTIES AND RESPONSIBILITIES

4. TE Approach & Methodology

The TE must provide evidence-based information that is credible, reliable and useful.

The TE consultant will review all relevant sources of information including documents prepared during the preparation phase (i.e. PIF, UNDP Initiation Plan, UNDP Social and Environmental Screening Procedure/SESP) the Project Document, project reports including annual PIRs, project budget revisions, lesson learned reports, national strategic and legal documents, and any other materials that the team considers useful for this evidence-based evaluation. The TE consultant will review the baseline Core Indicators/Tracking Tools submitted to the GEF at the CEO endorsement stage and the terminal Core Indicators.

The TE consultant is expected to follow a participatory and consultative approach ensuring close engagement with the Project Team, government counterparts, Implementing Partners, the UNDP Country Office(s), the Regional Technical Advisors, direct beneficiaries, and other stakeholders.

Engagement of stakeholders is vital to a successful TE. Stakeholder involvement should include interviews with stakeholders who have project responsibilities, including but not limited to the Climate Bonds Initiative, senior officials and task team/component leaders, key experts and consultants in the subject area, Project Board, project beneficiaries, academia, local government and CSOs, etc.

Terminal Evaluation of 'the Climate Aggregation Platform (CAP)' project

The specific design and methodology for the TE should emerge from virtual consultations between the TE consultant and the above-mentioned parties regarding what is appropriate and feasible for meeting the TE purpose and objectives and answering the evaluation questions, given limitations of budget, time and data. The TE consultant must use gender-responsive methodologies and tools and ensure that gender equality and women's empowerment, as well as other cross-cutting issues and SDGs are incorporated into the TE report.

The final methodological approach including virtual interview schedule and data to be used in the evaluation should be clearly outlined in the inception report and be fully discussed and agreed between UNDP, stakeholders and the TE consultant.

The final TE report should describe the full TE approach taken and the rationale for the approach making explicit the underlying assumptions, challenges, strengths and weaknesses about the methods and approach of the evaluation.

5. Detailed Scope of the TE

The TE will assess project performance against expectations set out in the project's Logical Framework/Results Framework (see TOR Annex A). The TE will assess results according to the criteria outlined in the [Guidance for Conducting Terminal Evaluations of UNDP-Supported, GEF-Financed Projects'](#)

The Findings section of the TE report will cover the topics listed below. A full outline of the TE report's content is provided in ToR Annex C.

The asterisk "(*)" indicates criteria for which a rating is required.

Findings

i. Project Design/Formulation

- National priorities and country driven-ness
- Theory of Change
- Gender equality and women's empowerment
- Social and Environmental Safeguards
- Analysis of Results Framework: project logic and strategy, indicators
- Assumptions and Risks
- Lessons from other relevant projects (e.g. same focal area) incorporated into project design
- Planned stakeholder participation
- Linkages between project and other interventions within the sector
- Management arrangements

ii. Project Implementation

- Adaptive management (changes to the project design and project outputs during implementation)

Terminal Evaluation of 'the Climate Aggregation Platform (CAP)' project

- Actual stakeholder participation and partnership arrangements
- Project Finance and Co-finance
- Monitoring & Evaluation: design at entry (*), implementation (*), and overall assessment of M&E (*)
- Implementing Agency (UNDP) (*) and Executing Agency (*), overall project oversight/implementation and execution (*)
- Risk Management, including Social and Environmental Standards

iii. Project Results

- Assess the achievement of outcomes against indicators by reporting on the level of progress for each objective and outcome indicator at the time of the TE and noting final achievements
- Relevance (*), Effectiveness (*), Efficiency (*) and overall project outcome (*)
- Sustainability: financial (*), socio-political (*), institutional framework and governance (*), environmental (*), overall likelihood of sustainability (*)
- Country ownership
- Gender equality and women's empowerment
- Cross-cutting issues (poverty alleviation, improved governance, climate change mitigation and adaptation, disaster prevention and recovery, human rights, capacity development, South-South cooperation, knowledge management, volunteerism, etc., as relevant)
- GEF Additionality
- Catalytic Role / Replication Effect
- Progress to impact

iv. Main Findings, Conclusions, Recommendations and Lessons Learned

- The TE consultant will include a summary of the main findings of the TE report. Findings should be presented as statements of fact that are based on analysis of the data.
- The section on conclusions will be written in light of the findings. Conclusions should be comprehensive and balanced statements that are well substantiated by evidence and logically connected to the TE findings. They should highlight the strengths, weaknesses, and results of the project, respond to key evaluation questions and provide insights into the identification of and/or solutions to important problems or issues pertinent to project beneficiaries, UNDP and the GEF, including issues in relation to gender equality and women's empowerment.
- Recommendations should provide concrete, practical, feasible and targeted recommendations directed to the intended users of the evaluation about what actions to take and decisions to make. The recommendations should be specifically supported by the

Terminal Evaluation of 'the Climate Aggregation Platform (CAP)' project

evidence and linked to the findings and conclusions around key questions addressed by the evaluation.

- The TE report should also include lessons that can be taken from the evaluation, including best practices in addressing issues relating to relevance, performance and success that can provide knowledge gained from the particular circumstance (programmatic and evaluation methods used, partnerships, financial leveraging, etc.) that are applicable to other GEF and UNDP interventions. When possible, the TE consultant should include examples of good practices in project design and implementation.
- It is important for the conclusions, recommendations and lessons learned of the TE report to include results related to gender equality and empowerment of women.

The TE report will include an Evaluation Ratings Table, as shown in the ToR Annex.

6. Expected Outputs and Deliverables

The TE consultant shall prepare and submit:

Deliverable	Payment Milestone	Estimated effort/ %
<ul style="list-style-type: none"> • TE Inception Report: TE consultant clarifies objectives and methods of the TE no later than 1 week after contract signature. TE consultant submits the Inception Report to the Commissioning Unit and project management. 	Dec 9 2022	10%
<ul style="list-style-type: none"> • Presentation: TE consultant presents initial findings to project management and the Commissioning Unit at the end of the desk reviews and virtual interactions. 	Jan 9 2023	10%
<ul style="list-style-type: none"> • Draft TE Report: TE consultant submits full draft report with annexes within 3 weeks of the end of the desk reviews and virtual interactions. 	Mar 21 2023	40%
<ul style="list-style-type: none"> • Final TE Report* and Audit Trail: TE consultant submits revised report, with Audit Trail detailing how all received comments have (and have not) been addressed in the final TE report, to the Commissioning Unit within 1 week of receiving UNDP comments on draft. 	Mar 31 2023	40%

*The final TE report must be in English. If applicable, the Commissioning Unit may choose to arrange for a translation of the report into a language more widely shared by national stakeholders.

Terminal Evaluation of 'the Climate Aggregation Platform (CAP)' project

All final TE reports will be quality assessed by the UNDP Independent Evaluation Office (IEO). Details of the IEO's quality assessment of decentralized evaluations can be found in Section 6 of the UNDP Evaluation Guidelines.²⁸

7. TE Arrangements

The principal responsibility for managing the TE resides with the Commissioning Unit. The Commissioning Unit for this project's TE is the UNDP Nature, Climate and Energy (NCE) Directorate. The Commissioning Unit will contract the consultant. The Project Team will be responsible for liaising with the TE consultant to provide all relevant documents, and set up stakeholder interviews.

8. Duration of the Work

The total duration of the TE will be approximately *20 working days* over a time period of *(12 weeks)* and shall not exceed five months from when the TE consultant is hired. The tentative TE timeframe is as follows:

- *(01/12/2022)*: Prep the TE consultant (handover of project documents)
- *(08/12/2022)*: 2 days: Document review and preparing TE Inception Report
- *(09/12/2022)*: 2 days: Finalization and Validation of TE Inception Report
- *(30/12/2022)*: 7 days: stakeholder meetings, interviews
- *(09/01/2023)*: Wrap-up meeting & presentation of initial findings (virtual)
- *(23/01/2023)*: 5 days: Preparation of draft TE report
- *(23/01/2023)*: Circulation of draft TE report for comments
- *(03/02/2023)*: 1 day: Incorporation of comments on draft TE report into Audit Trail & finalization of TE report
- *(17/02/2023)*: Preparation & Issue of Management Response
- *(28/02/2023)*: Expected date of full TE completion

9. Duty Station

This assignment will be home-based.

REQUIRED SKILLS AND EXPERIENCE

10. TE consultant Required Qualifications

An international consultant, with experience and exposure to projects and evaluations in sub-Saharan Africa and in particular clean energy and finance related projects, will conduct the TE.

The evaluator cannot have participated in the project preparation, formulation and/or implementation (including the writing of the project document) and should not have a conflict of interest with the project's related activities.

The selection of the evaluator will be aimed at the following areas:

Education

²⁸ Access at: <http://web.undp.org/evaluation/guideline/section-6.shtml>

Terminal Evaluation of 'the Climate Aggregation Platform (CAP)' project

- Master's degree in environment, sustainable energy, climate change, *finance*, economics, political/social sciences, *international affairs* or other closely related field;

Experience

- Relevant experience with results-based management evaluation methodologies;
- Experience applying SMART indicators and reconstructing or validating baseline scenarios;
- Competence in adaptive management, as applied to climate change mitigation and energy;
- Experience in evaluating projects;
- Experience working in Sub-Saharan Africa;
- Experience in relevant technical areas for at least 10 years;
- Demonstrated understanding of issues related to gender and climate change; experience in gender responsive evaluation and analysis;
- Excellent communication skills;
- Demonstrable analytical skills;
- Project evaluation/review experience within United Nations system will be considered an asset

Language

- Fluency in written and spoken English.

11. Evaluator Ethics

The TE consultant will be held to the highest ethical standards and is required to sign a code of conduct upon acceptance of the assignment. This evaluation will be conducted in accordance with the principles outlined in the UNEG 'Ethical Guidelines for Evaluation'. The evaluator must safeguard the rights and confidentiality of information providers, interviewees, and stakeholders through measures to ensure compliance with legal and other relevant codes governing collection of data and reporting on data. The evaluator must also ensure security of collected information before and after the evaluation and protocols to ensure anonymity and confidentiality of sources of information where that is expected. The information knowledge and data gathered in the evaluation process must also be solely used for the evaluation and not for other uses without the express authorization of UNDP and partners.

12. Payment Schedule

- 20% payment upon satisfactory delivery of the final TE Inception Report Presentation and Initial Findings Presentation to project management and the Commissioning Unit at the end of the desk reviews and virtual interactions. and approval by the Commissioning Unit
- 40% payment upon satisfactory delivery of the draft TE report to the Commissioning Unit

Terminal Evaluation of 'the Climate Aggregation Platform (CAP)' project

- 40% payment upon satisfactory delivery of the final TE report and approval by the Commissioning Unit and RTA (via signatures on the TE Report Clearance Form) and delivery of completed TE Audit Trail

Criteria for issuing the final payment of 40%

- The final TE report includes all requirements outlined in the TE TOR and is in accordance with the TE guidance.
- The final TE report is clearly written, logically organized, and is specific for this project (i.e. text has not been cut & pasted from other MTR reports).
- The Audit Trail includes responses to and justification for each comment listed.

APPLICATION PROCESS

Candidates will be sourced from the UNDP GPN/ExpRes roster.

Terminal Evaluation of 'the Climate Aggregation Platform (CAP)' project

Annex 2: List of stakeholders interviewed.

	Name	Role/organisation
Project board	Srilata Kammila	Chair, UNDP, Head – Climate Change Adaptation, NCE, BPPS/GPN [Replacement for Marcel Alers]
	Sean Kidney	Climate Bonds Initiative, CEO
	Owen Shumba	UNDP, Team Leader for East and Southern Africa Country Oversight & Support Teams (COST), Regional Bureau for Africa
	Lyes Ferroukhi	UNDP, Regional Team Leader, LAC, BPPS
UNDP project team	Eduardo Appleyard	Project Manager (Dec 2020- Present), UNDP (Consultant)
	Feven Fassil	PA (Sept 2021-Present), UNDP, CAP Project Analyst (IPSA)
	Michael Kiza	CAP National Coordinator for Uganda, UNDP (NPSA)
	Mateo Salomon	UNDP, Global Energy and Finance Advisor, NCE, BPPS/GPN (former CAP Project Coordinator and current advisor for the CAP supporting its implementation)
	Oliver Waissbein	Former Principal Technical Advisor, Energy, BPPS/GPN at UNDP
	Magdalena Kouneva	Rwanda Consultant
Partners	Harry Demetriou	South Pole, Senior Specialist, Clean Energy
	Ricky Buch	Power Trust, south pole, Senior Specialist, clean energy
	André Troost	TFE Energy
CBI	Miguel Almeida	Senior Programme Specialist, CBI

Annex 2: List of documents reviewed.

List of documents that have been reviewed includes, but not limited to:

- Project document;
- Project data base;
- Project technical deliverables
- Project PIRs 2019-2022
- Action plans
- Project budgets and expenditures
- The CAP website content
- Project progress report (progress on project identified indicators and updates on risks)
- The project governance structure (for example a ToR of a steering committee)
- Project Identification Form (PIF)
- UNDP Initiation Plan
- CAP Project Document:
- CAP Project Document Addendum:
- CEO Endorsement Request
- LPAC
- Inception Workshop Report
- Responsible Party Agreement (RPA)
- MoM -CAP Project Board Virtual Meeting_4th July 2019
- MoM -CAP Project Board Meeting_22nd June 2020
- MoM -CAP Project Board Meeting_8th April 2021
- MoM -CAP Project Board Meeting_9th December 2021
- Board Update Email _July 2022
- Board Update Email _Dec 2022
- Project CDRs
- Project co-financing data
- Linking Global Finance to Small-Scale Clean Energy - Financial Aggregation for Distributed Renewable Energy in Developing Countries
- Market Assessment Framework, User Guide and Guide to the Indicators – Final draft submitted by the service provider
- Market Assessments for Rwanda, Uganda
- CAP Action Plans for Rwanda and Uganda

Terminal Evaluation of 'the Climate Aggregation Platform (CAP)' project

Annex 3: Evaluation Question Matrix

Evaluative Criteria Questions	Indicators/evidence	Sources	Methodology
Relevance: How does the project relate to the needs of stakeholders at the global and country level? Was the project designed coherently?			
<ul style="list-style-type: none"> Is the project addressing the needs of target beneficiaries at both global and country levels? 	<ul style="list-style-type: none"> Level of alignment of project's activities with relevant stakeholders' plans Stakeholders' perceptions on the relevance of project's activities to their needs Degree of involvement and inclusiveness of beneficiaries and stakeholders in project design and implementation 	<ul style="list-style-type: none"> project documentations national policies or strategies, CAP websites Project stakeholders feedback 	<ul style="list-style-type: none"> Desk review Stakeholders' interviews Surveys
<ul style="list-style-type: none"> Is the project internally coherent in its design? 	<ul style="list-style-type: none"> Degree of coherence of the project design in terms of theory of change, components, choice of partners, structure, delivery mechanism, scope, budget, use of resources, etc. Level of coherence between programme design and project implementation approach Identification of the problem and its causes in the project being addressed? Suitability assessment of the defined indicators/measures to demonstrate impacts 	<ul style="list-style-type: none"> project documentations national policies or strategies, CAP websites Project stakeholders feedback 	<ul style="list-style-type: none"> Desk review Stakeholders' interviews Surveys
Effectiveness: To what extent have the expected outcomes and objectives of the project been achieved?			
<ul style="list-style-type: none"> Is the programme being effective in achieving its expected outcomes and outputs? What are the main Programme accomplishments? 	<ul style="list-style-type: none"> Direct impact: number of individuals or businesses benefiting from low-carbon energy as a result of financially closed CAP showcase transactions. Disaggregated by gender. Survey score conveying stakeholders' assessment of CAP's awareness raising Survey score conveying stakeholders' assessment of CAP's global knowledge products CAP global working group meetings Financially closed CAP showcase transactions 	<ul style="list-style-type: none"> project documentations (PIRs) Progress reports Project deliverables Project stakeholders feedback 	<ul style="list-style-type: none"> Desk review Stakeholders' interviews Surveys

Terminal Evaluation of 'the Climate Aggregation Platform (CAP)' project

	<ul style="list-style-type: none"> - CAP national working groups - Endorsement letters by relevant stakeholders conveying positive assessment of impact of CAP's market development activities 		
<ul style="list-style-type: none"> - What worked so well and what didn't work so well? and why? - What reasons behind the success (or failure) of the Programme in producing its different outputs and reaching outcomes? 	<ul style="list-style-type: none"> - Stakeholders' perceptions on the barriers and success factors? - Quality of existing information systems in place to identify emerging issues and risks 	<ul style="list-style-type: none"> - project documentations - risk/issue register - Project stakeholders feedback 	<ul style="list-style-type: none"> - Desk review - Stakeholders' interviews - Surveys
Efficiency: Was the project implemented efficiently, in line with international and national norms and standards?			
<ul style="list-style-type: none"> - Have resources (financial, human, technical) been allocated strategically and economically to achieve the project results? - Were the project activities implemented as scheduled and with the planned financial resources? 	<ul style="list-style-type: none"> - Cost in view of results achieved compared to costs of similar projects from other organizations - Level of discrepancy between planned and utilized financial expenditures - Planned vs. actual funds leveraged - Timeliness of activities delivery 	<ul style="list-style-type: none"> - project documentations - risk/issue register - Project stakeholders feedback 	<ul style="list-style-type: none"> - Desk review - Stakeholders' interviews - Surveys
<ul style="list-style-type: none"> - Is adaptive management used or needed to ensure efficient resource use? 	<ul style="list-style-type: none"> - Occurrence of change in project design/ implementation approach when needed to improve project efficiency - Existence, quality and use of M&E, feedback and dissemination mechanism to share findings, lessons learned and recommendation 	<ul style="list-style-type: none"> - project documentations - risk/issue register - Project stakeholders feedback 	<ul style="list-style-type: none"> - Desk review - Stakeholders' interviews - Surveys
<ul style="list-style-type: none"> - How efficient were partnership arrangements for the project? 	<ul style="list-style-type: none"> - Evidence that particular partnerships/linkages will be sustained - Types/quality of partnership cooperation methods utilized - Coherence of the established partnerships 	<ul style="list-style-type: none"> - project documentations - risk/issue register - Project stakeholders feedback 	<ul style="list-style-type: none"> - Desk review - Stakeholders' interviews - Surveys
Sustainability: To what extent are there financial, institutional, socio-political, and/or environmental risks to sustaining long-term project results?			

Terminal Evaluation of 'the Climate Aggregation Platform (CAP)' project

<ul style="list-style-type: none"> - Were sustainability issues adequately integrated in project design? - Are the necessary preconditions being created to ensure the sustainability of impacts of the project? 	<ul style="list-style-type: none"> - Coherence of risk management (risk identification and response) - Evidence/Quality of sustainability strategy - Evidence/Quality of steps taken to address sustainability - Degree to which project activities and results have been taken over by local counterparts - Elements in place in those different management functions, at appropriate levels (globally and at country level) in terms of adequate structures, strategies, systems, skills, incentives and interrelationships with other key actors - Exit strategy in place and actively operationalisation 	<ul style="list-style-type: none"> - project documentations - risk/issue register - Project stakeholders feedback 	<ul style="list-style-type: none"> - Desk review - Stakeholders' interviews - Surveys
<ul style="list-style-type: none"> - Does the project adequately address financial and economic sustainability issues? 	<ul style="list-style-type: none"> - Level and source of future financial support to be provided to relevant activities globally and at the country level - Evidence of commitments from government or other stakeholder to financially support relevant sectors of activities after project end - Level of recurrent costs after completion of project and funding sources for those recurrent costs 	<ul style="list-style-type: none"> - project documentations - risk/issue register - Project stakeholders feedback 	<ul style="list-style-type: none"> - Desk review - Stakeholders' interviews - Surveys
<ul style="list-style-type: none"> - Was an enabling environment developed? 	<ul style="list-style-type: none"> - level of capacities at the country level to continue climate financing management - Efforts to support the development of relevant policies at the country level - Evidences of commitment by the targeted countries to pursue the supported activities 	<ul style="list-style-type: none"> - project documentations - Project stakeholders feedback 	<ul style="list-style-type: none"> - Desk review - Stakeholders' interviews - Surveys
<p>Gender equality and women's empowerment: How did the project contribute to gender equality and women's empowerment?</p>			
<ul style="list-style-type: none"> - To what extent have gender equality and the empowerment of women been mainstreamed in the project design and 	<ul style="list-style-type: none"> - Extent to which programme products are sensitive to gender, age and disability - Extent to which programme data are gender-disaggregated 	<ul style="list-style-type: none"> - project documentations - Project stakeholders feedback 	<ul style="list-style-type: none"> - Desk review - Stakeholders' interviews - Surveys

Terminal Evaluation of 'the Climate Aggregation Platform (CAP)' project

<p>implementation? Has the Programme had any positive or negative effects on gender equality?</p>			
<p>Impact: Are there indications that the project has contributed to, or enabled progress toward promoting the scale-up of financial aggregation for small-scale, low-carbon energy assets in developing countries?</p>			
<p>What is the project impact in qualitative as well as quantitative terms from a broader development and system building perspective?</p>	<ul style="list-style-type: none"> - Level of stakeholders' awareness and satisfaction - Level of stakeholders' capacities to establish and manage CAP projects - Coherence and durability of established projects in countries - Direct impact: USD value of financially closed CAP showcase transactions - Direct impact: Lifetime GHG emission reductions from financially closed CAP showcase transactions 	<ul style="list-style-type: none"> - project documentations - Project stakeholders feedback 	<ul style="list-style-type: none"> - Desk review - Stakeholders' interviews - Surveys

Terminal Evaluation of 'the Climate Aggregation Platform (CAP)' project

Annex 4: TE Rating scales

Evaluation criteria and ratings: The standard evaluation criteria according to UNDP/GEF evaluation policy are Relevance, Impact, Effectiveness, Efficiency and Sustainability. The different scales for rating various criteria are shown in below tables.

Table 5: TE Rating Scales & Evaluation Ratings Table

TE Rating Scales	
Ratings for Outcomes, Effectiveness, Efficiency, M&E, Implementation/Oversight, Execution, Relevance	Sustainability ratings:
6 = Highly Satisfactory (HS): exceeds expectations and/or no shortcomings	4 = Likely (L): negligible risks to sustainability
5 = Satisfactory (S): meets expectations and/or no or minor shortcomings	3 = Moderately Likely (ML): moderate risks to sustainability
4 = Moderately Satisfactory (MS): more or less meets expectations and/or some shortcomings	2 = Moderately Unlikely (MU): significant risks to sustainability
3 = Moderately Unsatisfactory (MU): somewhat below expectations and/or significant shortcomings	1 = Unlikely (U): severe risks to sustainability
2 = Unsatisfactory (U): substantially below expectations and/or major shortcomings	Unable to Assess (U/A): Unable to assess the expected incidence and magnitude of risks to sustainability
1 = Highly Unsatisfactory (HU): severe shortcomings	
Unable to Assess (U/A): available information does not allow an assessment	

Terminal Evaluation of 'the Climate Aggregation Platform (CAP)' project

Annex 5: Signed UNEG Code of Conduct form

Independence entails the ability to evaluate without undue influence or pressure by any party (including the hiring unit) and providing evaluators with free access to information on the evaluation subject. Independence provides legitimacy to and ensures an objective perspective on evaluations. An independent evaluation reduces the potential for conflicts of interest which might arise with self-reported ratings by those involved in the management of the project being evaluated. Independence is one of ten general principles for evaluations (together with internationally agreed principles, goals, and targets: utility, credibility, impartiality, ethics, transparency, human rights and gender equality, national evaluation capacities, and professionalism).

Evaluators/Consultants:

1. Must present information that is complete and fair in its assessment of strengths and weaknesses so that decisions or actions taken are well founded.
2. Must disclose the full set of evaluation findings along with information on their limitations and have this accessible to all affected by the evaluation with expressed legal rights to receive results.
3. Should protect the anonymity and confidentiality of individual informants. They should provide maximum notice, minimize demands on time, and respect people's right not to engage. Evaluators must respect people's right to provide information in confidence, and must ensure that sensitive information cannot be traced to its source. Evaluators are not expected to evaluate individuals, and must balance an evaluation of management functions with this general principle.
4. Sometimes uncover evidence of wrongdoing while conducting evaluations. Such cases must be reported discreetly to the appropriate investigative body. Evaluators should consult with other relevant oversight entities when there is any doubt about if and how issues should be reported.
5. Should be sensitive to beliefs, manners and customs and act with integrity and honesty in their relations with all stakeholders. In line with the UN Universal Declaration of Human Rights, evaluators must be sensitive to and address issues of discrimination and gender equality. They should avoid offending the dignity and self-respect of those persons with whom they come in contact in the course of the evaluation. Knowing that evaluation might negatively affect the interests of some stakeholders, evaluators should conduct the evaluation and communicate its purpose and results in a way that clearly respects the stakeholders' dignity and self-worth.
6. Are responsible for their performance and their product(s). They are responsible for the clear, accurate and fair written and/or oral presentation of study imitations, findings, and recommendations.
7. Should reflect sound accounting procedures and be prudent in using the resources of the evaluation.
8. Must ensure that independence of judgement is maintained, and that evaluation findings and recommendations are independently presented.
9. Must confirm that they have not been involved in designing, executing or advising on the project being evaluated and did not carry out the project's Mid-Term Review.

Evaluation Consultant Agreement Form

Agreement to abide by the Code of Conduct for Evaluation in the UN System:

Name of Evaluator: _____ Mohammad Alatoom _____

Name of Consultancy Organization (where relevant): _____

I confirm that I have received and understood and will abide by the United Nations Code of Conduct for Evaluation.

Signed at _____ December 2022 _____ (Place) on _____ (Date)

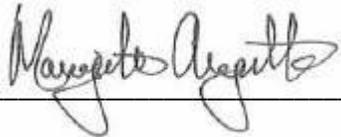
Signature: _____ Mohammad Alatoom _____

Annex 6: Signed TE Report Clearance form

Terminal Evaluation Report for The Climate Aggregation Platform for Developing Countries (PIMS 5749) Reviewed and Cleared By:

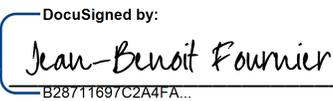
Commissioning Unit (M&E Focal Point)

Name: Margarita Arguelles

Signature:  _____ Date: 1 May 2023

Regional Technical Advisor (Nature, Climate and Energy)

Name: Jean-Benoit Fournier

Signature:  _____ Date: 4 May 2023

Annexed 7: TE Audit Trail (in a separate file)

Annexed 8: Tracking Tools (in a separate file)

Terminal Evaluation of 'the Climate Aggregation Platform (CAP)' project