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LEARNING-ORIENTED REAL-TIME  
IMPACT ASSESSMENT (LORTA)  
PROGRAMME  
Inception Report

Independent Evaluation Unit, Green Climate Fund

# LEARNING-ORIENTED REAL-TIME IMPACT ASSESSMENT (LORTA) PROGRAMME

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INCEPTION REPORT

*4 DECEMBER 2018*

THE CENTER FOR EVALUATION AND DEVELOPMENT



Center for Evaluation  
and Development



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## ABBREVIATIONS

<b>AE</b>	Accredited entity
<b>AfDB</b>	African Development Bank
<b>C4ED</b>	Center for Evaluation and Development
<b>CBEWS</b>	Community-based early warning system
<b>CCT</b>	Conditional cash transfers
<b>CIS</b>	Climate information system
<b>EE</b>	Energy efficient
<b>GCF</b>	Green Climate Fund
<b>GHG</b>	Greenhouse gas
<b>GMGs</b>	Green mini grids
<b>IEU</b>	Independent Evaluation Unit
<b>LORTA</b>	Learning-Oriented Real-Time Impact Assessment
<b>MHEWS</b>	Multi-hazard early warning system
<b>MSME</b>	Medium, small, and micro enterprises
<b>NDA</b>	Nationally designated authority
<b>PICSA</b>	Participatory Integrated Climate Services for Agriculture
<b>RBF</b>	Results-based financing
<b>RCT</b>	Randomized control trial
<b>RDD</b>	Regression discontinuity design
<b>RE</b>	Renewable energy
<b>REDD+</b>	Reducing Emissions from Deforestation and Forest Degradation and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries
<b>SLEM</b>	Sustainable landscapes in eastern Madagascar
<b>SMEs</b>	Small and medium-sized enterprises
<b>ToC</b>	Theory of change
<b>UNDP</b>	United Nations Development Programme



## I. INTRODUCTION TO THE LORTA PROGRAMME

Evaluating the impact of development projects and programmes has gained importance in recent years. Impact evaluation allows for not only increased transparency by measuring outcomes but also the opportunity to design and implement development projects more effectively. To contribute to this development, the Independent Evaluation Unit (IEU) of the Green Climate Fund (GCF) has started the Learning-Oriented Real-Time Impact Assessment (LORTA) programme, not only to be able to keep track of GCF projects in terms of performance and results but also to enhance learning within the GCF.

The GCF provides support to developing countries to reduce or limit their greenhouse gas (GHG) emissions and to adapt to the impacts of climate change. It thereby aims at promoting a paradigm shift towards low-emission and climate-resilient development. The extent to which GCF projects do lead to lower emissions and climate resilience can only be measured with the help of rigorous impact assessments. These are especially important because empirical evidence on the impacts of climate-related projects is rather scarce.

The IEU is mandated by the GCF Board to inform the Board's decision-making and disseminate lessons learned, contributing to guiding the GCF and its stakeholders, as well as providing strategic direction. It conducts periodic independent evaluations of GCF performance to objectively assess the results of the GCF and the effectiveness and efficiency of its activities. These evaluations are central to the GCF being a learning organization. The responsibilities of the IEU include undertaking independent evaluations, providing advisory and capacity support, supporting institutional

learning, and engaging with relevant evaluation networks.

The IEU recently launched its LORTA programme, which has the following aims:

- To embed real-time impact evaluations into funded projects/programmes so GCF programme managers can quickly access accurate data on the programme's quality of implementation and likelihood of impact
- To build capacity within projects to design high-quality data sets for overall impact measurement

The LORTA programme will incorporate state-of-the-art approaches for measuring results and informing effectiveness and efficiency into GCF projects. It is envisioned that GCF-funded projects will be enabled to increasingly use theory-based impact evaluations. The purpose of these evaluations is to measure the change in key result areas of the GCF that can be attributed to project activities. The LORTA programme will not only inform on the returns of GCF investments, it will also help GCF projects track implementation fidelity. The objectives of LORTA include the following:

- Measuring the overall change (outcome or impact) of GCF-funded projects and enhancing learning
- Understanding and measuring results at different parts of theories of change
- Measuring the overall contribution of the GCF to catalysing a paradigm shift and achieving impacts at scale

Therefore, LORTA will employ mixed-methods approaches that involve both quantitative and qualitative methods. LORTA will measure the overall change a funded project makes to a key GCF result area. Furthermore, LORTA will use theory-based counterfactual impact assessment approaches



that use experimental or quasi-experimental designs. The real-time measurement systems and qualitative data systems established for the impact evaluation designs will help project teams measure progress in implementation and provide rapid lessons on the early progress of the programmes.

LORTA is organized in three phases:

- Phase I – formative engagement and design: In the first year (2018), IEU will support eight GCF-funded projects to build high-quality, theory-based impact evaluation designs at inception. Formative work will include engagement with project teams, accredited entities (AEs), and GCF staff, designs for theory-based impact evaluations, and protocols for database development.
- Phase II – impact assessment: The second phase of LORTA will involve the main impact assessment stage (3–5 years) and include survey pilots, implementing measurement and tracking systems, collecting baseline and endline data, and continuous monitoring of real-time learning.
- Phase III – data analysis and feedback: The final stage will involve analysing baseline and endline data (both qualitative and quantitative), discussing results and engaging with diverse stakeholders to share results and incorporate feedback as required.

## II. LORTA DESIGN WORKSHOP IN BANGKOK, THAILAND

### A. General remarks

The LORTA Design Workshop was organized by the IEU. It took place from 24 to 26 July 2018, at the premises of the United Nations

Development Programme (UNDP) in Bangkok, Thailand. Participants were representatives from different divisions within the GCF, impact evaluation specialists from the Center for Evaluation and Development (C4ED), evaluation specialists from the World Bank and other international organizations, as well as representatives of AEs, implementing partners and project staff from 15 GCF-funded projects. The projects are presented in more detail in Appendix II and Appendix III.

The aims of the workshop were manifold:

1. *Dialogue and pathways to partnerships were to be initiated between all groups of participants.*
2. *The country project representatives were given the opportunity to work in groups and critically discuss viable impact evaluation designs for their respective projects, under the guidance of experienced and qualified impact evaluation specialists. They also further increased their knowledge about impact evaluations and their importance, learned from case studies and were introduced to different impact evaluation methods (with a special focus on randomized and quasi-experimental designs).*
3. *The goal was to identify GCF-funded projects for which impact evaluation designs shall then be worked out in the remaining inception and engagement phase of the LORTA programme.*

The workshop provided participants engaged in project design and implementation with the opportunity to do the following:

- Reflect upon the importance of including rigorous evidence in the project design process



- Discuss case studies in order to learn from impact evaluation experiences in similar work areas
- Learn about methods of impact evaluation, with a focus on randomized evaluations as well as quasi-experimental designs using mixed methods
- Develop potential impact evaluation designs by working in groups involving evaluators and project implementers

The workshop consisted of different elements and capacity-building measures using various formats, such as panel discussion, presentations, case studies and group work (for the full workshop agenda, please refer to Appendix I). During the initial presentation, the power of impact evaluations for real-time learning and changing policy was explained to the audience. This was followed by a panel discussion on the question “Why do we need evidence?” The discussion was led by representatives from the evaluator’s perspective, the government perspective and the perspective of international organizations.

Activities over the following days were a mix of group work tasks and presentations on selected topics. Presentations were given on impact evaluation methods, case studies tackling experimental and non-experimental evaluations, and how to run evaluations in the field. Each group (except for one) contained representatives from two projects, such that there were eight groups in total. Furthermore, each group contained at least one impact evaluation designer, who provided guidance on the tasks and acted as group facilitator. The group work was divided into five tasks:

1. *Programme Modalities & Evaluation Questions*
2. *Theory of Change*
3. *Evaluation Methods*

4. *Costing – Sample Size and Power Calculations*

5. *Implementation and Timelining*

Each task was first briefly introduced to the whole audience, and then groups had to work on applying the concepts to their own projects and present their results.

## B. Outcomes of the group work

The eight groups worked on their tasks separately and with support from impact evaluation specialists. The outcomes of the group work on the above-mentioned five tasks for all 15 participating projects are summarized below and described in more detail in Appendix II. The corresponding theory of change (ToC) for each project can be found in Appendix III.

### Group 1

A) *“Rural electrification of Burkina Faso”/ “Yeleen project on rural electrification through private sector-driven green mini grids (GMGs)”*

This project has yet to be approved; however, initial ideas for impact evaluation designs have been discussed. The ToC was well developed, with some suggestions for improvement provided during assessment. For the evaluation method, a clustered randomized control trial (RCT) approach was agreed upon. Due to a lack of programme information, sample size and power calculations could not be determined at this point, but a tentative timeline was established.

B) *“Green-mini-grid programme in DR Congo”*

This project has yet to be approved; however, initial ideas for impact evaluation designs have been discussed. A ToC has been developed, but some crucial parts need to be further developed. A matching-based RCT approach





was recommended, with five different treatment groups. Due to a lack of programme information, sample size and power calculations could not be determined at this point, but a tentative timeline was established.

### Group 2

- A) *“Scaling up the use of modernized climate information and early warning systems in Malawi” (FP002)*

This project in Malawi has already started the preparatory phase for data collection and implementation; therefore, the programme modalities and interventions for evaluation were already defined. The ToC is well articulated and some suggestions for improvement were made. For the evaluation method, a quasi-experimental design had been already defined; however, it could be improved by using an RCT approach.

- B) *“Climate information services for resilient development planning in Vanuatu” (FP035)*

This programme started in 2017 and will last for four years; the programme modalities are clear, and evaluation questions were defined during the workshop. The ToC lacked an overall structure and was redefined during the group work. A rigorous impact evaluation does not seem possible; the only feasible evaluation is a performance monitoring of the beneficiaries' outcomes.

### Group 3

- A) *“Integrated physical adaptation and community resilience through an enhanced direct access pilot in the public, private, and civil society sectors of three Eastern Caribbean small island developing states” (FP061)*

This project had only recently been approved for funding, and there were still many open questions. The ToC was quite general and will need to be further elaborated. Randomization

was discussed as an option, but the project representatives were not prepared to commit to it. The lack of information at this point made it impossible to suggest a clear evaluation design.

- B) *“Improving the resilience of vulnerable coastal communities to climate change related impacts in Viet Nam” (FP013)*

This project started in 2016. The ToC was found to be quite general and in need of further elaboration. It was not easy to develop a rigorous impact evaluation design because implementation had already started and the government did not foresee a randomization of its intervention. A possible impact evaluation design could be developed if some beneficiaries of government funding do not receive the GCF top-up funds in the remaining project period; however, whether this would happen remains unclear at this point.

### Group 4

- A) *“Sustainable landscapes in eastern Madagascar (SLEM)” (FP026)*

This project started in 2017. The private-sector component is expected to last 10 years, and the public-sector component 5 years. Two interventions were identified to be evaluated, and ToCs were developed and updated for each of them. A clustered RCT approach at the community level was recommended. Sample size and power calculations, as well as a timeline, were developed accordingly.

- B) *“Poverty, reforestation, energy and climate change PROEZA project in Paraguay” (FP062)*

The programme consists of three components, and component 1 was considered most suitable for evaluation. The ToC is well elaborated, and the recommended evaluation design is a clustered RCT approach at the community level. The timeline includes a pilot of the programme, a baseline survey and a follow-up survey.



### Group 5

- A) *“Building the resilience of wetlands in the province of Datem del Marañón, Peru” (FP001)*

The implementation of this project has already started, and the project will be spread over five years. The programme consists of four components; however, none were selected as suitable for evaluation. Since no baseline data were collected, self-selection/difference in differences was suggested as an evaluation design, as there are differences in the timing of the benefits for the various groups.

- B) *“Building resilient communities, wetland ecosystems and associated catchments in Uganda” (FP034)*

This programme started in 2017. Two interventions were identified as most suitable for evaluation. A quasi-experimental approach with a difference-in-differences set-up was suggested as most appropriate. At least three waves of data collection are planned (baseline, midline and endline).

### Group 6

- A) *“Scaling up multi-hazard early warning system and use of climate information in Georgia” (FP068)*

This project has not yet started. The most suitable intervention has been identified, and two evaluation questions have been developed, including the use of adequate indicators. The ToC was well elaborated. For each evaluation question, two different evaluation method options were suggested and discussed, taking the strengths and weaknesses of all options into consideration.

- B) *“Strengthening climate resilience of agricultural livelihoods in agro-ecological regions I and II in Zambia” (FP072)*

This project has not yet started. There are three main interventions; however, the intervention

most suitable for evaluation has not yet been identified. The selection of beneficiaries has already taken place and was not exogenous to project outcomes. An overall evaluation question has been formulated and will be further specified by more precise evaluation questions. The workshop discussed a randomized phase-in design at the camp level as the most appropriate evaluation design and also mentioned possible challenges. Sample size and timeline for the evaluation have been elaborated.

### Group 7

- A) *“Priming financial and land use planning instruments to reduce emissions from deforestation in Ecuador” (FP019)*

This project started in 2017. Targeted beneficiaries and evaluation questions were identified. The ToC did not include its relevant components (inputs, outputs, outcomes) but was redefined in the work group. Matching was recommended as the most fitting evaluation method. Based on this, costing and timeline considerations were undertaken.

- B) *“Vulnerable communities in Maldives to manage climate change-induced water shortages” (FP007)*

This project started in 2016. The ToC was developed in the work group and a regression discontinuity design (RDD) was suggested as the most suitable evaluation method. No costing calculations have been performed due to several caveats; however, a timeline has been developed for the baseline and endline survey.

### Group 8

- A) *“Business loan program for GHG emissions reduction in Mongolia” (FP028)*

This project started in 2016, with three main interventions. Two evaluation questions were defined, targeting perception and demand. An



RDD was determined to be the most appropriate evaluation. Sample size and power calculations were conducted accordingly, and a timeline for the evaluation was developed.

### C. Project selection

All project participants invited to the Design Workshop showed a high demand for and interest in participating in the LORTA programme.

The 15 projects were reviewed against the following strategic criteria and guiding principles to determine their eligibility for LORTA:

- **Innovativeness or importance:** A GCF project is eligible for LORTA support if it is innovative but lacking adequate evidence, or if it is a “flagship” GCF project.
- **Resource need and/or scalability:** This is the extent to which the project is critical for the overall climate and development objectives of the country and the extent to which there are plans for scaling up (i.e. the need for impact evaluation).
- **Representativeness of portfolio:** Projects are selected so that there is some balance of adaptation and mitigation activities from both the private and public sectors. However, not every phase of LORTA will contain this representative mix. Furthermore, selected projects should represent the diversity of projects – that is, they should especially include African states, least-developed countries and small island developing states, as well as including different sectors, such as climate information, food security and livelihoods, REDD+, and private sector facility.

- **Capacity needs:** Projects selected depend on the capacity among project staff, including existing capacity in the implementing agency to actualize and deliver designs and buy-in, and support from project staff to help design and implement LORTA.
- **Flexibility and adaptability:** LORTA will be tailored to the specific project and adapted to the specific institutional context. Buy-in and deep engagement are required in this context, including the willingness to contribute project funds.
- **Timing:** The timeline of the project and timing of the evaluation will determine what results and outcomes should be focused on. Initially, evaluations should focus on outcomes that are quick to show change. Evaluations of long-term outcomes may span beyond the project cycle.

During the LORTA Design Workshop in Bangkok, staff members of the IEU, C4ED and UNDP, as well as other impact evaluation experts, held a meeting to discuss the evaluability and emerging impact evaluation designs of the 15 projects. Following the workshop, the IEU consulted with relevant divisions of the GCF Secretariat to build consensus regarding the most appropriate and eligible projects for the LORTA programme against the criteria above. Each division brought invaluable insight into the projects’ details and the broader dynamics within the GCF. Staff members of the GCF echoed the keen interest expressed by workshop participants and conveyed their continued support for the LORTA programme moving forward. Discussions from these consultations were synthesized to inform the final deliberation of shortlisted projects.

After this comprehensive selection process, the following eight projects were selected to be



taken to the next level – that is, to be subject to formative work in preparation for impact evaluations:

1. *FP002: Scaling up the use of modernized climate information and early warning systems in Malawi*
2. *FP026: Sustainable landscapes in eastern Madagascar*
3. *FP028: Business loan program for GHG emission reduction in Mongolia*
4. *FP034: Building resilient communities, wetland ecosystems and associated catchments in Uganda*
5. *FP035: Climate information services for resilient development planning in Vanuatu*
6. *FP062: Poverty, reforestation, energy and climate change project in Paraguay*
7. *FP068: Scaling up multi-hazard early warning system and use of climate information in Georgia*
8. *FP072: Strengthening climate resilience of agricultural livelihoods in Zambia*

Each selected project received a notification letter, informing them that they had been selected to be part of the LORTA programme and outlining the further steps of the programme – that is, the indicative activities and travel dates for the field missions (see Section III below).

### III. WAY FORWARD

#### A. Engagement with stakeholders and formative work

For each of the selected projects, evaluation teams were formed consisting of two consultants from C4ED and one IEU staff member per project. The task of the evaluation teams will be to engage closely with key

stakeholders of the projects – namely, nationally designated authorities (NDAs), AEs, implementing agencies, project staff and potential end beneficiaries – to ensure their interest, understanding and sense of ownership for the planned theory-based impact evaluations.

Each evaluation team will travel to the respective project site, where it will hold meetings and capacity-building workshops with the key stakeholders. Meetings, in the form of expert interviews, will be used to acquire the maximum possible information about the GCF-funded project. Stakeholders will be interviewed regarding their views about the project's implementation and monitoring strategies, expected impact, challenges and possible solutions. The meetings will not only inform the evaluation team about the project but also aim at fostering collaboration and trust between the evaluation team and the onsite parties involved. In addition, a capacity-building workshop on impact evaluation and monitoring systems will be held, targeted at the key stakeholders. Beside conveying technical knowledge, the aim of this workshop is to emphasize the benefit of theory-based counterfactual approaches and real-time learning and measurement.

Under the guidance of the evaluation teams, impact evaluation designs will be developed for each of the eight selected GCF-funded projects. The evaluation teams will conduct context analyses, examine the existence of appropriate counterfactuals (i.e. comparable treatment and control groups), elaborate a ToC, assess the availability of baseline administrative and secondary data sources, and acquire budget information. Some of this work will be conducted during the engagement phase (i.e. while the evaluation teams are in the field), although most of it will be done remotely. For all activities, a close cooperation with the



project teams, NDAs, AEs and other stakeholders will be indispensable.

The formative work will take place from September to the end of October 2018.

Table 1: Field mission schedule

COUNTRY	STAFF	TIME PERIOD
Malawi	Giulia Montresor & Tereza Varejkova (+Timothy Cha)	09/09 – 09/16
Mongolia	Nicholas Barton & Asmus Zoch	09/09 – 09/16
Uganda	Atika Pasha & Katharina Richert	10/07 – 10/14
Paraguay	Esther Heesemann & Michaela Theilmann (+Nathan Fiala)	10/18 – 10/25
Madagascar	Markus Olapade & Clementine Sadania (+Jyotsna Puri)	10/21 – 10/28
Vanuatu	Katharina Richert & Sarah Vassallo	11/4 – 11/10
Zambia	Arne Weiss & Elisabeth Dorfmeister	11/4 – 11/10
Georgia	Giulia Montresor & Tereza Varejkova (+Solomon Asfaw)	11/11 – 11/17

## B. Reports

C4ED will produce an impact assessment design report for each of the eight GCF-funded projects. These reports will include a justified, relevant empirical strategy on the measurement of causal change, including potential challenges and an implementation monitoring and measurement framework, which has been agreed upon by the evaluation team and key stakeholders. The impact assessment design report will, in particular, consist of details on the planned activities for the next two to four years, including the ToC, feasibility considerations, engagement plan,

implementation tracking and real-time measurement system, pre-analysis plans, calculated sample size, evaluation design, timeline and budget. The reports are due on 15 December 2018.

C4ED will also write an overall report, which will inform about the status quo of the field visits and formative work. A first draft of this report was due on 10 October 2018. This report will be amended by C4ED and reviewed by IEU within four weeks of that date. The revised final report is due on 15 December 2018 (please refer to Section C below for a detailed timeline).



### C. Timeline

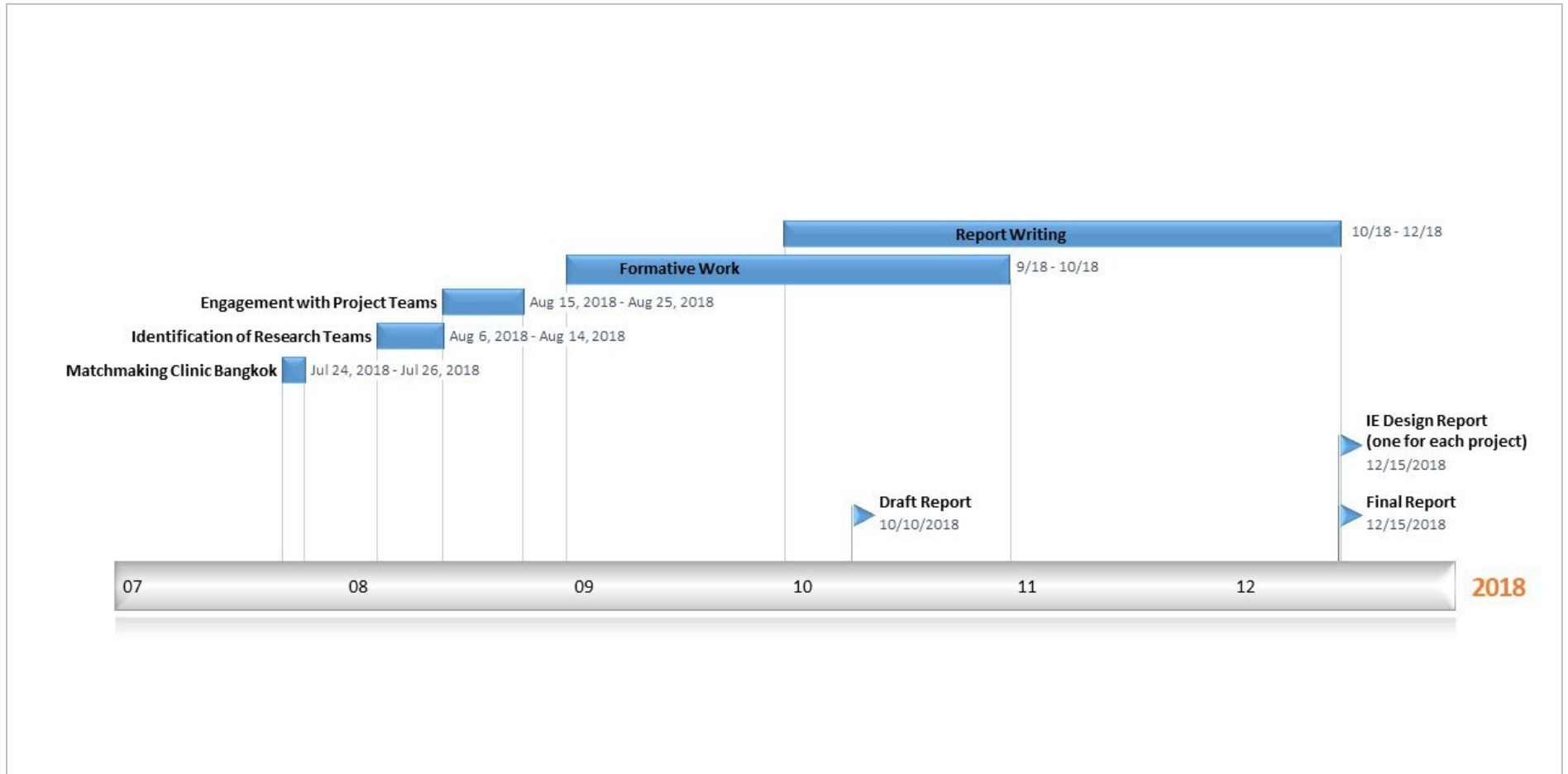


Figure 1: Timeline for inception phase (Phase I)



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## APPENDIX I: LORTA DESIGN WORKSHOP AGENDA



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# Learning-Oriented Real-Time Impact Assessment: A Design Workshop

## AGENDA

Independent Evaluation Unit (IEU) of the Green Climate Fund (GCF)

July 24 – 26, 2018

Bangkok, Thailand



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## Day 1: July 24, 2018

### Time & Location

### Agenda

08:00 – 08:45 <i>Lobby</i>	<b>Participant check-in</b> <i>Project Teams should put up their posters for display at this time.</i>
08:45 – 09:15 <i>Main Hall</i>	<b>Setting the Stage</b> <i>Introductions to the Workshop and fellow participants, outlining agenda and operationalizing Workshop goals.</i> Solomon Asfaw, GCF-IEU
09:15 – 09:45 <i>Main Hall</i>	<b>The Power of Impact Evaluation</b> <i>Explore the potential of impact evaluation for real-time learning and changing policy.</i> Jyotsna Puri, GCF-IEU
09:45 – 10:45 <i>Main Hall</i>	<b>Panel Discussion: Why do we need evidence for climate change?</b> <i>Listen to the experiences and perspectives of experts on the role of evidence in the climate challenge. Where are we now, how did we get here, and where are we going?</i> Chair: Jyotsna Puri <b>Panellists:</b> Markus Frölich, C4ED Masahiro Igarashi, FAO Nguyen Tuan Anh, MPI, Vietnam Pradeep Kurukulasuriya, UNDP
10:45 – 11:30 <i>Main Hall</i>	<b>Impact Evaluation Methods</b> <i>Become acquainted with different techniques for impact evaluation.</i> <b>Experimental and non-experimental impact evaluation</b> Nathan Fiala, GCF-IEU <b>Mixed-method approaches</b> Lini Wollenberg, CCAFS
11:30 – 11:45 <i>Lobby</i>	<b>Coffee Break &amp; Group Photo</b>
11:45 – 11:55 <i>Main Hall</i>	<b>Plenary: Introduction to Group Work Clinic &amp; Task 1</b> Babatunde Abidoye, UNDP
11:55 – 13:00 <i>Breakout Groups</i>	<b>Task 1: Program Modalities &amp; Evaluation Questions</b> <i>Discuss components of the project and the main results of interest.</i>
13:00 – 14:00 <i>Dining area</i>	<b>Lunch</b>





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## Time & Location

## Agenda

**14:00 – 14:10**

*Main Hall*

**Plenary: Introduction to Task 2**

Nathan Fiala, GCF-IEU

**14:10-15:15**

*Breakout Groups*

***Task 2: Theories of Change***

*Lay out and refine the causal pathway toward project objectives, identifying assumptions and critical bottlenecks.*

**15:15 – 16:15**

*Lobby*

**Poster Presentation & Coffee Break**

*Project Teams briefly present their posters to their colleagues. Best poster wins a prize!*

Chair: Joseph Intsiful, GCF-DMA

Sadie DeCoste, GCF-IEU

**16:15 – 17:00**

*Main Hall*

**Case Studies**

*Dive into case studies of two types of evaluation.*

***Case Study 1: Experimental Evaluation***

Paul J. Christian, World Bank

***Case Study 2: Non-experimental Evaluation***

Babatunde Abidoye, UNDP

Chair:

Lilian Macharia

GCF-OPM

**17:00 – 17:30**

*Main Hall*

**Open Discussion and Closing Remarks**

*Reflections from the day and administrative announcements.*

Solomon Asfaw, GCF-IEU

Timothy Cha, GCF-IEU

**19:30 – 22:00**

*Amari Watergate*

**Dinner**

*Workshop guests are cordially invited to join us for dinner at the venue below:*

***Amari Watergate Bangkok Hotel, 8<sup>th</sup> floor***

***847 Petchburi Road, Ratchathewi, Bangkok 10400***

***T: +66 2653 9000***



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## Day 2: July 25, 2018

### Time & Location

### Agenda

**09:00 – 09:10**  
Main Hall

**Recap of Day 1**  
*Review progress and key learning items from the previous day.*  
Solomon Asfaw, GCF-IEU

**09:10 – 09:20**  
Main Hall

**Plenary: Introduction to Task 3**  
Solomon Asfaw, GCF-IEU

**09:20 – 11:00**  
Breakout Groups

**Task 3: Evaluation Methods**  
*Select your impact evaluation methods, aligned with program modalities and evaluation questions.*

**11:00 – 11:15**  
Lobby

**Coffee Break**

**11:15 – 11:30**  
Main Hall

**Plenary: Introduction to Task 4**  
Jyotsna Puri, GCF-IEU

**11:30 – 12:30**  
Breakout Groups

**Task 4: Costing – Sample Size and Power Calculations**  
*Estimate the costs of your evaluation and the required sample sizes to achieve the necessary statistical power.*

**12:30 – 13:30**  
Dining Area

**Lunch**

**13:30 – 14:30**  
Breakout Rooms

**Group Work Continued**  
*Complete all previous Tasks, prepare for Presentation of Results.  
Send Presentation slides to IEU team.*

**14:30 – 15:45**  
Main Hall

**Presentation of Group Results**  
*Groups will present their impact evaluation designs to their colleagues.*  
Chair: Juan Chang, GCF-DMA

**15:45 – 16:00**  
Lobby

**Coffee Break**

**16:00 – 17:30**  
Main Hall

**Review: What have we learned?**  
*Constructive feedback on group presentations, and recap of key workshop learning modules so far.*  
Jyotsna Puri, GCF-IEU



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## Day 3: July 26, 2018

Time & Location	Agenda
09:00 – 09:30 Main Hall	<b>How do we run evaluations in the field?</b> <i>Gain insight into the practical aspects of a real-time impact evaluation.</i> Markus Frölich, C4ED
09:30 – 09:40 Main Hall	<b>Plenary: Introduction to Task 5</b> Atika Pasha, C4ED
09:40 – 11:00 Breakout Groups	<b>Task 5: Implementation and Timelining</b> <i>Plan and create a timeline for an impact evaluation.</i>
11:00 – 11:30 Main Hall	<b>Synthesis, Operational Framework and Roadmap</b> <i>Operationalizing evaluation designs and looking forward to what's ahead within LORTA.</i> Markus Frölich, C4ED
11:30 – 12:00 Main Hall	<b>Open Questions and Discussion</b> <i>Opening the floor to questions, ideas, suggestions, and feedback.</i> Nathan Fiala, GCF-IEU
12:00 – 12:30 Main Hall	<b>Closing Remarks and Next Steps</b> Solomon Asfaw, GCF-IEU
12:30 – 13:30 Dining Area	<b>Lunch</b>



## APPENDIX II: OUTCOMES FROM GROUP WORK

### Group 1.A) Project proposal: “Rural electrification of Burkina Faso”/ “Yeelen project on rural electrification through private sector-driven green mini grids (GMGs)”

**GCF grant:** USD 25,000,000

**Goal:** Develop and validate an innovative and sustainable rural electrification model through solar photovoltaic mini grids, which does not rely on recurrent government subsidies, and caters for productive use of and demand for clean and renewable energy, leading to productivity and socio-economic improvements in the targeted communities.

#### Task 1: Programme Modalities & Evaluation Questions

- **Overall timeline:** Unclear, although the tendering process to hire the private-sector firms is meant to start in the first quarter of 2019, and the construction of the grids is expected to start in the third quarter of 2019 (and continue over a two-year period). The final evaluation has been slated for the end of 2021, resulting in a period of three years in total, starting from approval of the project in late 2018 (2018–21).
- **Main interventions: The following were identified as the key intervention components that are part of the overall programme.**
  - Review and restructure the regulatory and institutional structures to determine how to improve these for imminent renewable energy (RE) and energy efficient (EE) innovations and private-sector-driven rural electrification.
  - Usage of results-based financing (RBF) grant to procure firms for installation of 100 green mini grids, based on a reduced tariff model for rural users to connect to electricity.
  - Stimulating demand of productive-use electricity based on a specific grant component that makes productive-use equipment available to small-scale businesses and entrepreneurs through microfinancing.
- **Intervention most suitable for evaluation:**
  - Stimulating demand of productive-use electricity based on a specific grant component that makes productive-use equipment available to small-scale businesses and entrepreneurs through microfinancing.
  - Alternatively, the demand for the grid connections (connections to the grid) and socio-economic impact on communities of the same.
- **Targeted beneficiaries:** The project is expected to provide electricity access to 335,000 individuals, including at least 50% women, with an estimated annual consumption of 15 GWh. A total of 50,000 connections in 100 rural localities to be achieved, including 500 productive-use connections.
- **Evaluation questions:**
  - What is the effect of a supply side RBF mechanism on the number of (low emissions) connections and the energy access rate?



- What effect does microfinance for rural users have on the target population's productivity, ability to pay for electricity and other socio-economic indicators?

## Task 2: Theory of Change

Overall, the ToC is well developed, with a results chain for each of the three components of the programme. The assessment resulted in the following suggestions.

- It is not clear what the key evaluation questions for this project are, and they need to be phrased better to be able to have a corresponding ToC. The programme participants were more interested in the RBF component and the evaluation of its success, whereas the results that are more important for the GCF concern the climate change mitigation impact from this grid set-up. In line with the same, some outcomes that are preferred are not measurable (e.g. the role of monitoring in terms of the RBF, and there is no clear plan in terms of means of verification for this RBF either).
- The mechanism itself needs to discuss the linkage between the construction of the grid and its take-up; the discussion needs to cover reasons why communities may not substitute their current fuel sources with RE and EE. Clearly define outcomes and then determine what barriers are in the way (this forms part of the assumptions).
- Later outcomes are expected to be reached through more synergies between the three strands, which also needs to be addressed in the ToC.

## Task 3: Evaluation Method

A clustered RCT approach was recommended to evaluate the grid connection take-up and its impact on the population's productivity and consumption patterns. With 100 grids, several treatments are possible:

- Treatment 1: Subsidizing the grid connections/incentives for grid connections (solar lamps or clean cookstoves as part of the connection)
- Treatment 2: Flexible payments (prepaid, group, Mpay are all options)
- Treatment 3: Community involvement in grid set-up (community role in monitoring is also important here)
- Control group: No treatment

**Caveats:** Because the projects involve working with private partners who are constructing and subsidizing the grids, it might be harder to convince them about the randomization process or to implement the treatments without the support of government, for instance.

For the grants component, the targets can also be small and medium-sized enterprises (SMEs), and therefore the treatments can be further divided by target group. The role of gender can also be explored here.

## Task 4: Costing – Sample Size and Power Calculations

Sample size and power calculations are not yet possible because more programme information is needed. However, the following is clear – since a total of 100 GMGs are planned, a randomized cluster sampling design is possible. Based on the final design suggested, this might change.



### Task 5: Implementation and Timelining

DATE	ACTIVITY
Oct–Dec 2018	GCF Board Approval
Oct–Dec 2018	AfDB Board Approval
Jan–Mar 2019	Allocation of contracts for GMG
Apr–Jun 2019	Financial Close
Jun 2019	Inception report
Jul–Dec 2019	Baseline data and reporting
Jul 2019–Mar 2020	Construction
Apr–Jun 2020	Commercial Operation Starting Date
Jul–Sep 2020	Interim evaluation and reporting
Sep 2020–Mar 2021	Final evaluation and reporting



## Group 1.B) Project proposal: “Green mini-grid programme in DR Congo”

**GCF grant:** Information not provided, but overall project is approximately USD 80 million.

**Goal:** Increasing energy access and replacing diesel-based off-grid power generation with RE sources using reduced/subsidized tariffs, and reinforcing the economic and social resilience of the low-income population in three (semi-) urban towns in the Democratic Republic of the Congo.

### Task 1: Programme Modalities & Evaluation Questions

- **Overall timeline:** Given approval from the Boards of the GCF and the African Development Bank (AfDB) between October and December of 2018, the project timeline is set for three years: 2019–2021.
- **Main interventions:** The following was identified as the key intervention component that is part of the overall programme:
  - Co-financing to the public sector in setting up a solar-power-based system (5–10 MW each) installed in each town, which would be backed up by battery (diesel based).
- **Intervention most suitable for evaluation:**
  - Co-financing to the public sector in setting up a solar-power-based system (5–10 MW each) installed in each town, which would be backed up by battery (diesel based).
  - The demand for the grid connections (connections to the grid) and socio-economic impact on the communities.
- **Targeted beneficiaries:** The project is expected to improve access to electricity to around 150,000 residents in each area, who are all currently off-grid. In absolute numbers, 20,000 connections (including households and SMEs) are foreseen across the three mini grids.
- **Evaluation questions:**
  - What is the effect of the mini grids in substituting fossil fuels/ligneous fuel usage with clean and affordable solar power in semi-urban areas of the Democratic Republic of the Congo?
  - What are the reductions in GHG emissions?

### Task 2: Theory of Change

Overall, the ToC is not clear since the evaluation questions are not well defined, which is visible in the development of outcomes and outputs at each level. The overall outputs and outcomes are mentioned much too late in the ToC.

It is also not clear what the assumptions are that can potentially introduce barriers in the flow of the change from interventions to output to outcomes.

### Task 3: Evaluation Method

A matching-based RCT approach was recommended to evaluate the grid connection take-up and its impact on the population’s energy consumption patterns. Since the three towns are not very big, different treatments within the same town are likely not possible. Furthermore, the towns are not very similar in nature and can therefore likely not be compared with each other (more analysis would be required on this point).



Since the three towns are different from one another, issues of self-selection can arise when proposing a phase-in design. Therefore, it is important to set up a control group that is comparable and unlikely to be contaminated by the treatment itself. Upon success of these three mini-grid projects, the programme is intended to be scaled up in 30 other towns (a potential list is already available in a feasibility study), and these 30 towns would be used to match one or two control towns with the treatment towns, based on their probability of being selected for treatment (covariates depend on the data availability).

Several treatments are possible in the three towns:

- Treatment 1: Subsidization of the grid connections/incentives for grid connections (solar lamps as part of connection)
- Treatment 2: Flexible payments (prepaid, group, Mpay are all options)
- Treatment 3: Community involvement in grid set-up (community role in monitoring also important here)
- Treatment 4: Information campaign on renewable energy
- Treatment 5: Peak versus off-peak load variation to ensure more quality supply of electricity (also differential targeting of SMEs versus households)
- Control group: No treatment (these are the 30 potential towns that are also planned to receive treatment in the longer term)

**Caveats:**

- What is the willingness and need for this clean energy source here? What is the impact of the mini grid?
- What is the role of conflict in this scenario?

**Task 4: Costing – Sample Size and Power Calculations**

Sample size and power calculations are not yet possible because more programme information is needed. Only simple random sampling is possible, since there is no real possibility for clusters. This might change based on the final design.

**Task 5: Implementation and Timelining**

Not enough information was provided for these since no proposal was forwarded for this project. These are estimates based on workshop notes.

DATE	ACTIVITY
Oct–Dec 2018	GCF Board Approval
Oct–Dec 2018	AfDB Board Approval
Jun 2019	Inception report
Jul–Dec 2019	Baseline data and reporting
Jul–Sep 2020	Interim evaluation and reporting
Sep 2020–Mar 2021	Final evaluation and reporting





**Group 2.A) Project proposal: “Scaling up the use of modernized climate information and early warning systems in Malawi” (FP002)**

**GCF grant:** USD 12,294,545

**Goal:** Increase the resilience to climate variability through upgraded weather stations, capacity-building and the delivery of more accurate and better customized climate information to vulnerable food-insecure and flood-prone fishing communities.

**Task 1: Programme Modalities & Evaluation Questions**

- **Overall timeline:** Six years; 1 July 2017–30 June 2023
- **Main interventions:** The following were identified as the key intervention components:
  - Expand the coverage of meteorological and hydro-met networks and train staff on operations, data analysis, modelling and forecasting
  - Training of farmers using Participatory Integrated Climate Services for Agriculture (PICSA)
  - Dissemination of tailored messages on climate-based agricultural advisories to farmers through SMSs and radio at national or district level
  - Installation of flood signaling tools in the rivers of flood-prone districts
  - Dissemination of advisory messages to fishing communities through identified platforms (e.g. SMS)
- **Intervention most suitable for evaluation:**
  - Training of farmers using PICSA
- **Targeted beneficiaries:** All communities in 21 districts (out of a total 28 districts in Malawi), divided as follows:
  - 14 food-insecure districts
  - 8 flood-prone districts
  - 4 districts with fishing communities along the shore of Lake Malawi

It should be noted that some districts have an overlap of the above characteristics. The selection was made by the Government of Malawi and UNDP following vulnerability assessments. The timeline of community targeting is not yet fully decided.

- **Evaluation question: Are people adopting climate-resilient agricultural practices because they have accessed the programme information?**

**Task 2: Theory of Change**

Overall, the ToC is well articulated. The assessment of the ToC resulted in the following suggestions:

- The ToC should more clearly indicate the causal impact pathways between activities, outputs and outcomes.
- The outcomes should be set at appropriate levels.



- The delivery of weather messages and PICSA training were identified as main result areas given their more innovative nature compared to existing programmes.
- There is a need to review some of the bottlenecks but also to indicate those bottlenecks that the project will have no control over.

### Task 3: Evaluation Method

**Evaluation strategy:** A clustered RCT approach was recommended to evaluate the PICSA intervention. The following suggestions were made for identifying the counterfactual: Within each district, treatment would be randomized and clustered at farmer club level, as this is the level of the PICSA training. Treatment and control farmer clubs should be geographically separated enough to minimize knowledge sharing spillovers.

#### Potential treatment arms:

- Treatment 1: Climate information via PICSA
- Treatment 2: Climate information via SMS + PICSA
- Control group: No treatment or SMS

Given that PICSA constitutes a comprehensive package of training dimensions, it may be additionally agreed to randomize the composition of PICSA training, although this needs to be verified with the University of Reading, which is leading the PICSA component.

**Caveats:** Pre-workshop evaluation plans envisioned a quasi-experimental design in the Inception Report. This needed further discussion with Dr. Babatunde, who supported the project in the development of the proposed evaluation framework, and the University of Reading, which is leading the PICSA training.

### Task 4: Costing – Sample Size and Power Calculations

The final suggested approach was as follows:

- **Sample size:** The sample will be composed of a random selection of 10 treatment/control smallholder farmers in each of 50 randomly selected farmer clubs in the 10 food-insecure districts for a total of 5,000 farmers. This will allow for the evaluation of multiple treatment arms (there are approx. 1,600–3,200 farmer clubs per district).
- **Power calculations:** Will be performed using the adoption of climate-resilient agricultural practices as an outcome variable. The baseline of outcome variable should be collected from needs-assessment and vulnerability reports.

**Caveats:** The above sample size is suggested for the evaluation of the PICSA intervention only. However, pre-workshop evaluation plans established a sample size of 1,500 households across all the programme districts for the evaluation of all the interventions. Furthermore, the hiring process and inception design discussions with the survey company for baseline data collection have already started.

### Task 5: Implementation and Timelining

It was noted that the project in Malawi has already started the preparatory phase for data collection and implementation, therefore the calendar shows very tight deadlines that need quick actions.



DATE (WEEK)	ACTIVITY
06/08/2018	Inception Phase
13/08/2018	Inception Phase
20/08/2018	Inception Phase
27/08/2018	Approval/Revised Inception Report
03/09/2018–28/09/ 2018	Baseline
10/2018	Roll-out of PICSA



## Group 2.B) Project proposal: “Climate information services for resilient development planning in Vanuatu” (FP035)

**GCF grant:** USD 22,953,000

**Goal:** Increase resilience to climate variability through upgraded system capacity, production and delivery of better customized climate information across five sectors: infrastructure, water, tourism, agriculture and fisheries.

### Task 1: Programme Modalities & Evaluation Questions

- **Overall timeline:** Four years, 1 April 2017–30 June 2021
- **Main interventions:**

The following were identified as key interventions:

  - Upgrade of information technology and climate-information system (CIS) data generating, modelling and delivery systems
  - Delivery of customized CIS communication tools and knowledge resources to end users
- **Intervention most suitable for evaluation:**
  - Delivery of customized CIS communication tools and knowledge resources to end users
- **Targeted beneficiaries:**
  - Approximately 39,200 households, i.e. 70% of households living in six (low-lying, flood-prone) coastal provinces of Vanuatu’s main island.
  - The six provinces were selected by the government, based on the following criteria: non-urban (agricultural, fishing, tourism-intensive) and past-disaster occurrence.
- **Evaluation questions:**
  - Do people apply climate-resilient practices (e.g. make their homes climate-proof, change livelihood planning, make a more efficient use of water)?
  - What mode of communication works better to deliver climate information (e.g. SMS versus Facebook)?
  - Do deterministic or probabilistic weather forecasts work better?

### Task 2: Theory of Change

The ToC lacked an overall structure and was redefined during the work group as follows:

- **Assumptions:**
  - Enabling Policy Environment
  - Climate Change does not cross 1.5 degrees C (Paris threshold)
  - Impacts are within the set of known/possible impacts



**Task 3: Evaluation Method**

An RCT strategy was discussed in the work group. However, the only evaluation that is considered feasible is a performance monitoring of the beneficiaries’ outcomes. No rigorous impact evaluation seems possible, for the following reasons:

- Intervention is implemented on the main island; all other islands are smaller and different
- Six clusters are not enough to identify impact
- Concerns of spillovers between adjacent provinces
- Evaluation questions regarding what communication channel and forecast type would require randomization of multiple treatment arms; again, RCT not considered feasible

**Task 4: Costing – Sample Size and Power Calculations**

None.

**Task 5: Implementation and Timelining**

The Secretariat of the Pacific Regional Environment Programme envisions a two-stage implementation and related assessment:

	ASSESSMENT 1	ASSESSMENT 2	ASSESSMENT 3
Phase 1 Provinces	Baseline	Mid-term	Endline
Phase 2 Provinces	Baseline-0	Baseline	Endline



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**Caveats:** This timeline was most likely envisioned for a randomized phase-in approach. However, given that impact evaluation does not seem feasible, the implementation and evaluation could be undertaken for all six provinces at the same time.



**Group 3.A) Project: “Integrated physical adaptation and community resilience through an enhanced direct access pilot in the public, private, and civil society sectors of three eastern Caribbean small island developing states” (FP061)**

**GCF grant:** USD 20,000,000

**Goal:** To strengthen institutional capacities to directly access climate finance in order to increase the resilience of 5% of the population in three Eastern Caribbean countries (Antigua and Barbuda, Dominica, and Grenada) to climate variability and change.

**Task 1: Programme Modalities & Evaluation Questions**

- **Overall timeline:** Four years; November 2018–November 2022
- **Main interventions:** The following were identified as the key intervention components. The first three target adaptation to climate change at different levels:
  - Small grant facility for community adaptation: restore community buildings to use them as shelters during natural catastrophes as well as for everyday community life
  - Revolving loans for adaptation in private buildings: improve construction
  - Public-sector adaptation
  - Capacity-building to strengthen financial institutions, devolve decision-making, stakeholder engagement for transparency, and sustainable procurement
- **Targeted beneficiaries:**
  - Small grant facility: during the workshop, it was mentioned that communities would be the beneficiaries, although the project documents mention civil society organizations and non-governmental organizations as the beneficiaries; no target number was specified, but the maximum grant amount was determined at USD 50,000.
  - Revolving loans: 300 private households and 100 businesses
  - Public sector: unclear
  - Financial institutions: unclear
- **Interventions most suitable for evaluation:**
  - Small grant facility (for communities) and revolving loans (for private households)
- **Evaluation question:** Do small grants and revolving loans build resilience?
- The following options were discussed regarding how resilience could be operationalized:
  - Do people feel safe?
  - Do houses withstand a range of weather conditions?
  - Do houses withstand natural catastrophes?

**Task 2: Theory of Change**

The ToC is quite general and needs to be further elaborated.



- While it is possible to have one ToC that reflects all project components, it seems to be a good exercise to develop a ToC for each component separately.
- The ToC needs to work out several steps that must be fulfilled to reach from activity to final objective.
- Suggestion for the thought process: Define the problem. What is then the objective? How can the objective be reached? What are the different intermediate steps to be taken?

### **Task 3: Evaluation Method**

This project was only recently approved for funding. The project interventions had not yet started and there were still many open questions. For example, it was unclear how many communities were targeted with the small grant facility and whether demand would be larger than supply of grants. If so, no selection criteria had been elaborated. The same applied to the revolving loan scheme.

It was discussed whether randomization could be an option, but the project representatives were not prepared to commit to it. They wanted to consider the possibility in the further planning of the project. While the project appeared to be interesting and potentially adequate for an impact evaluation, the lack of information at this point made it impossible to suggest a clear evaluation design.

### **Task 4: Costing – Sample Size and Power Calculations**

Given the caveats mentioned above, no power calculations were conducted.

### **Task 5: Implementation and Timelining**

The implementation period of the project is November 2018 to November 2022. In principle, there is still time to determine an impact evaluation design. However, the open questions raised above need to be answered first. It is possible that project implementation will vary by country. It would thus be possible to run an evaluation in only one of the three countries.





### Group 3.B) Project: “Improving the resilience of vulnerable coastal communities to climate change related impacts in Viet Nam” (FP013)

**GCF grant:** USD 29,523,000

**Goal:** Build on government efforts to boost the resilience of vulnerable coastal populations against weather shocks (mostly floods and storms).

#### Task 1: Programme Modalities & Evaluation Questions

- **Overall timeline:** Five years; 1 November 2016–31 October 2021
- **Main interventions:** The following were identified as the key intervention components:
  - Storm- and flood-resilient design features added to 4,000 new houses
    - This component builds on a government programme that provides funding for house construction (approx. USD 600 for each house). The GCF funding is a top-up to these government funds and allows for additional safety features.
  - Regeneration of 4,000 hectares of coastal mangrove storm surge buffer zones
  - Increased access to enhanced climate, loss and damage data for private- and public-sector application; improved planning through integrated climate-risk information
- **Intervention most suitable for evaluation:**
  - Climate-resilient housing: one could compare households that receive government and GCF funds to those who receive nothing or to those who only receive government funds.
- **Targeted beneficiaries:**
  - Climate-resilient housing: 20,000 poor and highly disaster-exposed people in 100 communes in five coastal provinces
  - Mangrove zones: 3,865,100 people in five coastal provinces
  - Improved access to climate-risk information: 30 million residents in all 28 coastal provinces of Viet Nam

Note: It remained unknown how the five provinces for the first two interventions were selected.

- **Evaluation question:** Does better construction of houses build resilience?  
The following options were discussed regarding how resilience could be operationalized:
  - Do people feel safe?
  - Do houses withstand a range of weather conditions?
  - Do houses withstand natural catastrophes?

#### Task 2: Theory of Change

The ToC is quite general and needs to be further elaborated.

- While it is possible to have one ToC that reflects all project components, it seems to be a good exercise to develop a ToC for each component separately.



- If the team stays with one overall ToC, the question arises whether there is one overall objective of all project components. Is it increased resilience of households?
- Assumptions need to be captured for each arrow in the ToC separately.

### **Task 3: Evaluation Method**

It was not easy to come up with a rigorous impact evaluation design for several reasons. First, the project had already started, in 2016. For example, 600 (out of the targeted 4,000) climate-resilient houses had already been built by the time of the workshop. Second, the government did not foresee a randomization of its intervention. Instead, beneficiaries of the housing funds were selected on a needs basis. Only households that were poor and whose house was in a poor construction condition could receive the government funds. From a list of potential beneficiaries, the most vulnerable received the funding first. Interestingly, the project introduced additional selection criteria for the GCF top-up funds:

- be a member of a vulnerable group (woman-headed household, disabled, ethnic minority)
- spouses must agree to receive the funding (if applicable), and
- be willing to contribute a small co-financing amount.

To date, these additional selection criteria have not excluded anyone from funding. Instead, all 600 households that received government funds also received the GCF funds.

As a final point, none of the project representatives knew whether households eligible for government funds might have to be excluded from the GCF top-up funds in the future. This would be the case if there were more government-funding eligible households than households fulfilling the additional GCF top-up selection criteria.

A possible impact evaluation design could be developed if the last point was fulfilled – that is, if not all beneficiaries of government funding received the GCF top-up funds in the remaining project period. Then it would be possible to measure the impact of the additional safety features funded through the GCF top-up funds. However, this would require that baseline data be collected rather soon, which did not seem to be planned. With the help of these baseline data, treatment households (those with government funding plus GCF top-up funds) and control households (those with government funds only) could be matched in the later data analysis. This would be necessary because the two groups of households are unlikely to be similar on average, since households are not assigned randomly into treatment and control groups.

### **Task 4: Costing – Sample Size and Power Calculations**

Given the many caveats mentioned above, no power calculations were conducted.

### **Task 5: Implementation and Timelining**

Since the feasibility of an impact evaluation was unclear, no timeline for an evaluation was developed. Instead, it was suggested to incorporate training or guidelines on the learning-oriented real-time aspect of LORTA into the project's timeline.



## Group 4.A) Project proposal: “Sustainable landscapes in eastern Madagascar (SLEM)” (FP026)

**GCF grant:** USD 53,500,000

**Goal:** Implement sustainable landscape measures to increase the resilience of smallholder farmers, reduce GHG emissions from deforestation and make climate-smart investments in agriculture and renewable energy.

### Task 1: Programme Modalities & Evaluation Questions

- **Overall timeline:** 10 years; 1 January 2017–31 December 2026

The private-sector component of the project, led by the European Investment Bank, is expected to last 10 years; the public-sector component, led by Conservation International, is expected to last 5 years.

- **Main interventions:**

- Provide climate-smart agricultural inputs such as seeds, tools and trainings to smallholder farmers
- Build capacity with government employees, local non-government organizations, farmer groups and local communities to implement adaptation and mitigation measures
- Integrate national climate change policies into planning at the regional and local levels and strengthen local technical capacity to address climate change challenges
- Establish an investment fund for sustainable agriculture and renewable energy enterprises
- Update key regional planning documents, develop a system of efficient and transparent regional governance
- Provide per diems to patrollers of local forests as part of improving management of critical natural ecosystems

- **Interventions most suitable for evaluation:**

- Provide climate-smart agricultural inputs such as seeds, tools and trainings to smallholder farmers
- Provide per diems to patrollers of local forests

- **Targeted beneficiaries:** The project targets two areas: the Ankeniheny-Zahamena Forest Corridor and Ambositra-Vondrozo Forest Corridor. The current plan is to work in 260 communities in or near protected areas.

- **Evaluation questions:** The following were identified as key evaluation questions:

- Are farmers adopting climate-resilient agricultural practices because they have been provided climate-smart agricultural inputs?
- Is the food security of farmers and their families improving as a consequence of the SLEM project?
- Is the surveillance of local forests increasing because patrollers have been provided per diems?



- Is deforestation overall decreasing as a consequence of the SLEM project?

## Task 2: Theory of Change

Two ToCs have been developed and updated, one for each intervention to be evaluated:

- **ToC for farmer services:** Providing climate-smart agricultural inputs to farmers is expected to lead to farmer adoption of new agricultural practices, so they then plant more varieties of crops and increase crop rotation, leading farmers to increase their production. As a result, farmers' incomes, savings and assets are expected to increase, leading to an improvement in food security.
- **ToC for patrolling services:** Providing per diems to patrollers is expected to increase their surveillance of local forests, increasing reporting of violations and deterrence for cutting down forests. This component could then lead to violators simply moving to other areas or could decrease overall deforestation.

## Task 3: Evaluation Method

A clustered RCT approach at the community level was recommended to evaluate the SLEM project. The following suggestions were made for identifying the counterfactual: A baseline survey will allow for the identification of 360 communities that the team will be able to work in. Within this list, 100 communities will be randomly selected to be part of the control group.

## Task 4: Costing – Sample Size and Power Calculations

The following was the final suggested approach that was shared:

- **Sample size:** We expect at this time to survey 3,000 households. The evaluation design will include 200 communities (sample 100 of the 260 for the treatment and all 100 as controls) and 15 households per community will be selected to interview.
- **Power calculations:** These will be performed considering the number of clusters (communities) and heterogeneity in the communities. The first main outcome of interest will be the level of forest coverage surrounding communities, to be measured through satellite imaging. The second set of main outcomes will focus on the farmer-based interventions and will include measures of farm production, household income, consumption and savings, to be collected during a follow-up survey.

## Task 5: Implementation and Timelining

In order to save time and resources, the assessment baseline and the evaluation baseline will be merged. This expanded survey, developed in cooperation between the programme and evaluation teams, will start in November 2018 and run until March 2019.



## Group 4.B) Project proposal: “Poverty, reforestation, energy and climate change PROEZA project in Paraguay” (FP062)

**GCF grant:** USD 25,060,000

**Goal:** Encourage sustainable agroforestry development and improve the resilience of poor and vulnerable households in Eastern Paraguay through incentivizing the development of productive agroforestry and climate-smart agricultural systems and providing improved cooking stoves.

### Task 1: Programme Modalities & Evaluation Questions

- **Overall timeline:** 3–5 years
- **Main components:**
  - Component 1
    - Provision of agricultural inputs (seeds and trainings) and conditional cash transfers (CCT) for successful implementation of system
    - Provision of improved cooking stoves
  - Component 2: Concessional credit for medium-sized landowners to incentivize the adaptation of a plantation strategy that combines high-yield forest plantations with natural forests
  - Component 3: Institutional capacity-building
- **Intervention most suitable for evaluation:**
  - Component 1
- **Targeted beneficiaries:** Beneficiaries of the social protection programme “Sembrando Oportunidades” in 500 communities in Eastern Paraguay
- **Evaluation questions:**
  - Will the provision of free improved cooking stoves lead to a reduction in GHGs and improve women’s health?
  - Will incentivized provision of agroforestry-friendly inputs increase household income?

### Task 2: Theory of Change

The agricultural input intervention is expected to lead to an adaptation of forestry plantations, which will increase forest coverage and, in turn, a) reduce time and money spent by households sourcing firewood, b) increase forest coverage, and c) increase the sales of agricultural products. The latter two outcomes are expected to result in higher household consumption and income.

The provision of improved cooking stoves is expected to lead to reduction in the use of firewood for cooking in those households that will use the cooking stoves. Consequently, forest coverage is expected to increase, GHGs to reduce and women’s health to improve.

The programme acknowledges that there could be a rebound effect where the price of firewood is decreased, thus leading to increased demand from lower-income households. This could then decrease



the total deforestation and GHG emissions reductions. A test of this potential issue will be built into the evaluation design.

### Task 3: Evaluation Method

The evaluation design developed by the implementing organization is an RCT that is clustered at the community level. The interventions to be delivered as part of this project will go to people who are currently receiving another assistance programme from the government.

Potential treatment arms are as follows:

- Treatment 1: Agricultural inputs and CCT
- Treatment 2: Agricultural inputs and CCT + cooking stoves
- Control group: No treatment

In addition to programming, communities will be randomized by the intensity of treatment in order to determine the impact of spillovers from the interventions and potential rebound effects. Two different intensities will be considered: 100% of all households of one community, and 50% of all households of one community. This will result in the following study design:

- Treatment arm 1a): Agricultural inputs and CCT & 100% treatment intensity on community level
- Treatment arm 1b): Agricultural inputs and CCT & 50% treatment intensity on community level
- Treatment 2a): Agricultural inputs and CCT + cooking stoves & 100% treatment intensity on community level
- Treatment 2b): Agricultural inputs and CCT + cooking stoves & 50% treatment intensity on community level
- Control group: No treatment

### Task 4: Costing – Sample Size and Power Calculations

A total of 30,000 eligible households have been identified, but there will only be enough resources for 17,000 to receive the CCT and for 7,000 to receive the cookstoves.

The final suggested approach was as follows:

- **Sample size:** The sample will be composed of a random selection of 10 households in each of 500 communities, resulting in a total sample of 5,000 households. 100 communities will be randomly assigned to the control group, and 200 to each of the two treatment arms. Within each treatment arm, half of the communities will be randomly assigned to the high and low treatment intensity.
- **Power calculations:** Power calculations are to be determined but will consider the number of clusters and heterogeneity in the communities.

### Task 5: Implementation and Timelining

The first activity the programme would like to conduct is a pilot of the programme. The plan is to conduct this in the last quarter of 2018. The evaluation team will ideally be involved in the assessment of the pilot and use qualitative and formative evaluation methods to help the programme determine the best way to implement the different components.



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A baseline survey can be conducted in early 2019, with the programme rolling out to communities by the middle of 2019. A follow-up survey of households will be conducted within one to two years after the completion of the programme.



## Group 5.A) Project proposal: “Building the resilience of wetlands in the province of Datem del Marañón, Peru” (FP001)

**GCF grant:** USD 6,240,000

**Goal:** To preserve the carbon stock in the Datem del Marañón through sustainable natural resource management.

### Task 1: Programme Modalities & Evaluation Questions

- **Main components:**
  - Component 1: Strengthening institutional capacity in government
  - Component 2: Strengthening capacity of community-based institutions
  - Component 3: Resilience building through sustainable bio-businesses
  - Component 4: Science, technology, knowledge management, and monitoring and evaluation systems
- **Component most suitable for evaluation:**
  - None selected
- **Targeted beneficiaries:**
  - 120 indigenous communities of Datem del Marañón Province, Amazon Region

### Task 2: Theory of Change

The notes from the group discussion do not mention an assessment of the ToC.

### Task 3: Evaluation Method

- Three phase-in groups (46 – 42 – 32) from 120 communities.
- Possible design:
  - Self-selection/Difference in differences
- Choice of counterfactual and how selected:
  - Group 1: benefits from the programme in period 1
  - Group 2: benefits from the programme in period 2 but not in period 1
  - Group 3: benefits from the project in period 3 but not in periods 1 and 2
- Considerations:
  - Working with indigenous communities, speaking seven different languages and living in very remote areas, and having very few translators, will mean a large number of teams will be needed.
  - The implementation has already started and no baseline data were collected.

### Task 4: Costing – Sample Size and Power Calculation

- Estimates of power





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- N = 52 households
- Data sources and/or assumptions for calculations
  - 75% cutting palm trees
  - 50% is targeted
  - Minimum detectable effect 25%
  - No baseline

#### **Task 5: Implementation and Timelining**

The implementation has already started and will be spread over five years.



**Group 5.B) Project proposal: “Building resilient communities, wetland ecosystems and associated catchments in Uganda” (FP034)**

**GCF grant:** USD 24,140,000

**Goal:** Support the government of Uganda in the management of critical wetlands, in response to climate change and variability, to reduce vulnerability of wetland ecosystems and the associated livelihoods.

**Task 1: Programme Modalities & Evaluation Questions**

- **Overall timeline:** 8 years; March 2017–March 2025
- **Main interventions:** The following were identified as the key intervention components of the overall programme.
  - Restore and manage critical wetlands to improve ecosystem services – such as ground water recharge, flood control, fishing and agriculture for enhanced livelihoods – to the most vulnerable subsistence farming communities.
  - Diversify livelihoods and agricultural practices to make communities more resilient to climate shocks, by enhancing the skill sets of beneficiaries for alternative livelihood options.
  - Reduce risk of and improve preparedness for climate-related disasters in vulnerable wetlands, through participatory and decentralized early warning systems and capacity development for farmers and communities in implementing disaster risk reduction measures.
- **Interventions most suitable for evaluation:**
  - Diversify livelihoods and agricultural practices to make communities more resilient to climate shocks, by enhancing the skillsets of beneficiaries for alternative livelihood options.
  - Reduce risk and improve preparedness to climate-related disasters in vulnerable wetlands, through participatory and decentralized early warning systems and capacity development for farmers and communities in implementing disaster risk reduction measures.
- **Targeted beneficiaries:** The project is expected to spread countrywide, but the current targeted beneficiaries stem from two regions: South Western and Eastern Uganda.
  - 16 districts (6 in South Western Uganda and 10 in Eastern Uganda)
  - Total population of 3,946,366 people and land area of 13,000 km<sup>2</sup>
  - 800,000 individuals in and around the wetlands
  - The government is also considered as a beneficiary
- **Evaluation question:**
  - No information.

**Task 2: Theory of Change**



No information.

**Task 3: Evaluation Method**

A quasi-experimental approach with a difference-in-differences set-up can be developed here.

The choice of counterfactual will be taken from the other communities that depend on wetlands for their livelihoods within the same project area.

**Task 4: Costing – Sample Size and Power Calculations**

The estimate of power for Uganda suggests a total of 100 wetland and associated catchments can be used for data collection.

This is based on the following data and assumptions:

- 50% encroachment (binary outcome), which would reduce to 30%
- The significance is at 5% level
- Standard 80% power
- There will be at least three waves of data collection: baseline, midline and endline

**Task 5: Implementation and Timelining**

DATE	ACTIVITY
October 2018	Inception phase
Oct–Dec 2018	Approval/Revised inception report
Jan–Jul 2019	Baseline data and reporting (including revisions)
Jul–Sep 2021	Interim evaluation and reporting
Sep 2025–Mar 2026	Final evaluation and reporting



## Group 6.A) Project: “Scaling up multi-hazard early warning system and use of climate information in Georgia” (FP068)

**GCF grant:** USD 27,054,000

**Goal:** To develop climate-risk information products, which will mainly benefit the population at risk by providing the necessary information to enable them to safeguard their lives, livelihoods and assets from climate-induced extreme hydrometeorological risks.

### Task 1: Programme Modalities & Evaluation Questions

- **Overall timeline:** Seven years; August 2018–July 2025
- **Main interventions:** The following were identified as the key intervention components:
  - Establishment of a multi-hazard early warning system (MHEWS)
  - Intensive community sensitization and engagement through an approach called community-based early warning system (CBEWS)
- **Targeted beneficiaries:**
  - MHEWS: 1.7 million people at risk of climate-induced extreme events and hazards; these people live in 11 river basins (= 40% of the population)
  - CBEWS: 100 communities most at risk
- **Intervention most suitable for evaluation:**

All 1.7 million target people will have access to information from the MHEWS. Excluding people from receiving messages would not be ethical, since the excluded households would be subject to avoidable risk. However, the project expects that additional follow-up beyond basic messages may be necessary to ensure that people receive, understand and take full advantage of the warning system. This follow-up may require some sensitization of communities. Therefore, in the 100 communities that have been identified as most high risk, the project will implement sensitization and community engagement activities (CBEWS). Since not all communities can participate in the CBEWS, there is an opportunity to measure the additional impact of adding the CBEWS to the MHEWS.
- **Evaluation question:** What is the additional impact of CBEWS on household engagement with the MHEWS and resilience to shocks?

The group discussed which indicators could be used:

- a) Intermediate outcomes:
  - Are households aware of the MHEWS?
  - Can households correctly respond to questions about risks in their community?
  - If any messages have been sent to their community, how many households received this message?
  - If any messages have been sent to their community, can households correctly recall the information from the message?



- If any messages have been sent to their community, did households take any action to respond to the message?
- b) Final outcomes:
  - How many households experienced damage or losses from hazards covered by the MHEWS?
  - Is the household economic status improved as measured by agricultural production, consumption, household assets, etc.?
- **Alternative evaluation questions:**
  - 1) What is the best delivery modality for messages?
  - 2) What is the relationship between the accuracy of predictions from the MHEWS for a specific household's risk and their trust in future measures?

## Task 2: Theory of Change

The ToC behind the CBEWS relies on these activities increasing the credibility of the MHEWS in participating communities. Improved credibility could translate into greater awareness of the MHEWS in participating communities, better attention to messages from the MHEWS, and ultimately enhanced reactivity to messages received.

## Task 3: Evaluation Method

- **Main evaluation question – Option 1: Randomized phase-in**

100 communities in 11 river basins will participate in the CBEWS, but not all of them will start at the same time. The phase-in of communities to start working on the CBEWS presents an opportunity to do a rigorous impact evaluation, in which treatment and control groups are created by comparing communities that have already started to communities that have not started yet.

Selection of which communities start CBEWS is based on two important considerations. First, the early starters are selected at random. Random selection ensures that, on average, the characteristics of the early starters at baseline are the same as the average characteristics of the late starters. The second consideration is that the randomization is done in each river basin. This means that to the extent possible, the number of early starters is the same as the number of late starters within each river basin. This method, called stratified randomization, ensures that if river basins are very different from each other, the treatment status is not correlated with differences across river basins that could bias the estimated effect of the river basin.

- **Main evaluation question – Option 2: Regression discontinuity design**

The 100 communities that will participate in CBEWS will be selected through a vulnerability assessment. This vulnerability assessment will be conducted at the launch of the project and will be used to construct a vulnerability index. The 100 communities with the highest vulnerability score will be selected to participate in CBEWS. This means that any communities with scores that are lower than the 100th-highest vulnerability score will not be included. This structure creates a good opportunity for an RDD. By surveying the 30 or so communities that rank 101 to 130 on the vulnerability index, the impact evaluation can compare the 30 communities that just



missed out on the CBEWS against the communities that “just made it in” to this part of the programme.

▪ **Alternative evaluation question 1**

The MHEWS will eventually cover the full target population of 1.7 million people who live in areas that are at risk. Messages will be sent out every time there is an identified risk of hazard such as a flood, drought or avalanche. These events offer the opportunity to do tests or experiments on the ideal messaging to get people to react. By sending a message of one type to half of the intended recipients and a message of another type to another half of the intended recipients, over time the project can learn which are the best types of messages to increase reaction and awareness. This approach is called A/B testing.

For example, one hypothesis could be that a message will be more effective if it includes the name of a well-known community leader. To test this hypothesis, the project could plan an experiment where two messages are prepared. The name of the community leader could be mentioned in one message, and not in the other. Then the next time there is a risk, the first message would be sent to a randomly selected subset of the targeted population, and the second message would be sent to the rest of the population. After the risk has passed, a quick survey can be made of the two populations to see which message was more effective in getting people to take action. Repeating such experiments over time can help the project learn which messages are most effective.

It is important to note in this strategy that these experiments should be done only for cases where it is not already known which message would be best, since it would be unethical to knowingly exclude some households from an effective message.

▪ **Alternative evaluation question 2**

The designs described above both use variation in the implementation of the policy to generate insights. But important learning can be gained from the random variation that occurs in disaster areas. One hypothesis that could be tested is that “false alarms” could degrade trust in early warning messages. If households receive a flood warning message, but do not experience a flood, they may be less likely to pay attention to the next message.

This hypothesis could be explored by using the natural variation in where a disaster strikes compared to where the disaster was predicted to strike. For example, imagine that two households receive the same message telling them that there will be a flood and they should take immediate action. But then, because of the inherent unpredictability of the exact location of a disaster, one of the households is directly affected by the flood and the other is not. By carefully tracking the communication of warning messages and the actual location of disasters, and then doing brief surveys with both types of households, the project could learn about the relative risks and benefits of being more or less general in the sending of warning messages and the possible risk of losing trust if warnings are too general.

**Task 4: Costing – Sample Size and Power Calculations**

No information.



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### **Task 5: Implementation and Timelining**

No information.



## Group 6.B) Project proposal: “Strengthening climate resilience of agricultural livelihoods in agro-ecological regions I and II in Zambia” (FP072)

**GCF grant:** USD 32,000,000

**Goal:** The project will implement multiple project components all designed to improve smallholder productivity and resilience, with a particular focus on building the resilience and adaptive capacity of women. Examples include a climate information system, irrigation investments, farmer field schools and access to finance for commercialization.

### Task 1: Programme Modalities & Evaluation Questions

- **Overall timeline:** According to the funding proposal, the overall project duration is seven years, from 1 October 2018 to 30 September 2025. The evaluation period, according to the funding proposal, is from 2019 to 2025.
- **Main interventions:** The ToC of the project poster lists three main outputs with corresponding interventions, which may be grouped under 1) Information and knowledge, 2) Adoption and 3) Access.
  - 1) Smallholder farmers are able to plan for and manage climate risks
  - 2) Farmers adopt and maintain more resilient agricultural production and lifestyles
  - 3) Farmers have better access to markets and the commercialization of climate-resilient agricultural commodities
- **Intervention most suitable for evaluation:**
  - Has not yet been identified.
- **Targeted beneficiaries:** 16 districts in five provinces. A total of 946,000 farmers in 220 camps (the word in this context for communities) will eventually be involved in the interventions.

It should be noted that selection of these communities has already taken place and was based on considerations about the suitability of the project to the field context, and so is not exogenous to project outcomes. Within the camps, the most vulnerable households will be prioritized for inclusion in the project. Vulnerability is assessed on a range of categories. If households meet any of the vulnerability criteria, they will be enrolled.

- **Evaluation question:** The group work identified one overall evaluation question: What is the overall impact of the project on smallholder farmers’ productivity and resilience?

More precise impact evaluation questions will have to be identified in order to guide the evaluation design. In contrast, several possible outcomes have already been identified.

- Intermediate:
  - Are households using irrigation?
  - Are households aware of information transmitted via the climate information system?
  - Are households using improved seeds?





- Are households involved in commercial activities, such as cultivation of high-value crops or sales of crops through specific value chains?
- Final outcomes:
  - Household welfare as measured by income, consumption, asset-based poverty index, etc.
  - Household resilience as measured by expected probability of being below a poverty line based on observable characteristics of households.

## Task 2: Theory of Change

The ToC lists several components. The notes from the group discussion do not mention an assessment of the ToC. This is still to come.

## Task 3: Evaluation Method

The workshop discussed a randomized phase-in design at the camp level as the most appropriate evaluation design. Because outcomes within camps are more correlated with each other than outcomes across different camps, the evaluation should include as many camps as possible, and surveys should be collected in all of these camps. In case there is over-subscription to the programme, an alternative would be to randomize the assignment of participating households at the camp level.

### Caveats:

- Potential concerns with the over-subscription method are spillovers between households at the camps and that over-subscription is only known after final verification of the households that are eligible and are willing to participate, at which stage it might no longer be possible to implement a randomized phase-in design.
- One challenge for the evaluation is that the project will be doing many different types of activities, and different households will participate in different components. For example, a household that receives commercialization support may not receive irrigation support and vice versa. This will make it very difficult for the impact evaluation to tell which project activities are the most important. A way to improve this situation would be to use the over-subscription method described above to test different strategies against each other.

## Task 4: Costing – Sample Size and Power Calculations

- **Sample size:** 220 communities will participate in the project. At a minimum, at least 100 or so camps should be covered by the household surveys, with approximately 8–20 households per camp, depending on the final agreed evaluation question.
- **Power calculations:** The group notes do not mention power calculations. These will still have to be discussed and performed.



### Task 5: Implementation and Timelining

Num	Activity	Start Date	End Date	Duration (in days)	Responsible
<b>1</b>	<b>Formation of core team</b>			<b>10-30</b>	
1.1	Implementers			10-30	Evaluation Team
1.2	Monitors/Auditors (if different)	Aug 18		10-30	Evaluation Team
<b>2</b>	<b>Desk review</b>			<b>21</b>	
2.1	Literature review on topic			7	Evaluator
2.2	Project documentation (data, reports, operating and monitoring manuals, etc.)			14	Evaluation Team/Implementer
<b>3</b>	<b>Evaluation strategy and design</b>	<b>Sep 18</b>		<b>58</b>	
3.1	Evaluation design			20	Evaluation Team
3.2	Finalize targeted respondents			3	Evaluation Team/Implementer
3.3	Finalize key outcomes			5	Evaluation Team/Implementer
3.4	Sample size (power calculations)			5	Evaluation Team
3.5	Report evaluation design to stakeholders			5	Evaluation Team
3.6	Feedback from Stakeholder			15	Implementers/Monitors
3.7	Revise evaluation design (sample, question/outcomes)			15	Implementers/Monitors
3.8	Sampling frame and strategy (listing vs. Random walk)			5	Evaluation Team
#	Ethical approval/IRB	Oct 18		30-180	Evaluation Team/Implementer
<b>4</b>	<b>Data Collection</b>			<b>175</b>	
4.1	Develop Data Collection Tools (DCT)	Nov 18		30-60	Evaluation Team/Implementer
4.2	Select and finalize survey staff/local partner	Dec. 15 2018		10	Evaluation Team
4.3	Plan logistics of data collection	Dec. 15 2018		10	Evaluation Team/Survey staff
<b>Num</b>	<b>Activity</b>	<b>Start Date</b>	<b>End Date</b>	<b>Duration</b>	<b>Responsible</b>
4.4	(Back) Translation and contextualization of DCT	Jan 1 2019		10	Survey Staff
#	Programming DCT if CAPI	Jan 1 2019		10-14	Survey Staff
#	Set up monitoring of data collection	Jan 1 2019		10-14	Evaluation Team/Survey staff
4.5	Enumerator training	Jan 15 2019		3-5	Evaluation Team/Survey staff
4.6	Revise DCTs based on training feedback	Jan 21 2019		5	Evaluation Team
4.7	Piloting of DCT	Jan 28 2019		2-5	Survey Staff
4.8	Analysis of piloting data	Feb 10 2019		10	Evaluation Team
4.9	Revise DCT based on piloting data and feedback	Feb 17 2019		5	Evaluation Team
#	Enumerator retraining			2	Survey Staff
4.10	Collection of data	Mar 19		10-40	Survey Staff
#	Data coding (if CAPI)			10-40	Survey Staff
4.11	Quality checking the data			10-40	Evaluation Team
4.12	Revision of incorrect/illogical information (by recall/reinterview)			45	Survey Staff
<b>5</b>	<b>Data Analysis</b>			<b>60</b>	
5.1	Data cleaning			30	Evaluation Team
5.2	Analysis of cleaned data			30	Evaluation Team
<b>6</b>	<b>Reporting of results</b>			<b>150</b>	
6.1	First draft of baseline/midline/endline report			90	Evaluation Team
6.2	Review/Comments from stakeholders			14-30	Implementer
7.3	Final draft of report (after consultation)			30	Evaluation Team
<b>7</b>	<b>Dissemination of results (Workshop, presentations, policy briefs, courses, papers, etc.)</b>			<b>1-30</b>	<b>Evaluation Team</b>



## Group 7.A) Project proposal: “Priming financial and land use planning instruments to reduce emissions from deforestation in Ecuador” (FP019)

**GCF grant:** USD 41,172,739

**Goal:** Reduce emissions from deforestation and forest degradation in the Ecuadorian Amazon, through the implementation of the national REDD+ Action Plan and new economic incentives for forest conservation, restoration and management.

### Task 1: Programme Modalities & Evaluation Questions

- **Overall timeline:** Five years; 22 May 2017–21 May 2021
- **Main interventions:**
  - Community programme: promotion of conservation agreement and new financial and economic options to vulnerable communities in the Amazon (such as non-timber forest products)
  - Farmer programme: promote alternative agricultural and forest management practices to farmers in the Amazon
- **Intervention most suitable for evaluation: both community and farmer programmes.**
- **Targeted beneficiaries:**

The project divides the Amazon forest into three regions (north, central, south), which include six provinces each. There are two groups of targeted beneficiaries:

  - 10 indigenous communities in forest areas
  - 5,000 farmers, mostly migrants, with forests on farms
- **Evaluation questions:** Are people adopting the conservation agreement? What is the climate mitigation effect due to avoided deforestation and forest degradation?

### Task 2: Theory of Change

The ToC was missing its relevant components (inputs, outputs, outcomes). It was redefined in the work group as follows:

- **Inputs:**
  - Input 1: Development of new policies for conservation and sustainable forestry  
Measurable item: # of new laws and regulations passed
  - Input 2: Development of policy plans for sustainable agricultural systems  
Measurable items: # of land use plans, and # of specialists hired and deployed
- **Outputs:**
  - Output 1: Land use plans incorporating sustainability and conservation criteria  
Measurable items: # of land use plans developed; interaction of beneficiaries with specialists



- Output 2: Land use plans incorporating sustainability criteria with agricultural system considerations

Measurable items: # of land use plans; # of livestock systems transformed; interactions of beneficiaries with specialists

- **Outcomes:**

- Decreased deforestation, sustainable conservation

Measurable items: # of hectares of forest conserved and/or restored; income of farmers and indigenous communities

- Increased local capacity

Measurable items: test scores, ability tests, use of improved business plans; use of new technologies, use of certified production for markets

- **Impacts:**

- Reduction of GHG emissions (measurable)
- Increase of carbon stock by restoration of forest areas (measurable)

### Task 3: Evaluation Method

#### Evaluation strategy: Matching

- **Matching strategy for community programme:**

- Treated communities will be matched to other non-treated communities. Matching of communities will rely on similar characteristics in forest coverage and social and economic topics.

- **Matching strategy for farmer programme:**

- Keep 1,000 farmers out of treatment. Then a sample of the 1,000 treated farmers can be matched to 1,000 non-treated farmers. Matching needs to be performed based on similar characteristics in type of crops and social and economic topics (check list).

#### Caveats:

- Cultural factors require any intervention to be undertaken with the active decision-making of indigenous communities.
- The high language diversity would require potentially very costly survey/interview assessments within communities.

### Task 4: Costing – Sample Size and Power Calculations

- **Sample size:**

- Community programme: 10 treated communities matched to 10 non-treated communities (out of a pool of 90).
- Farmer programme: Keep 1,000 farmers out of treatment. 1,000 treated farmers (out of 4,000) matched to 1,000 non-treated farmers.



▪ **Power calculations:**

- Community programme: None. Baseline outcome data are available from satellite images.
- Farmer programme: None. A survey must be designed in order to get baseline information.

Additional data can be retrieved from surveys conducted by official organizations (Ministries of Environment and Agriculture); these will help to complete the baseline information required.

**Task 5: Implementation and Timelining**

Activity	2017		2018				2019				2020				2021				2022				
	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Evaluation design																							
Baseline survey (farmers): Development and testing																							
Baseline survey (farmers): Deployment																							
Baseline report																							
Intervention (community): Deployment																							
Intervention (farmer): Deployment																							
Intervention (farmer): Post-deployment (wait-and-watch)																							
Midline survey (farmer): Deployment																							
Endline survey (farmer): Deployment																							
Analysis (community): Data acquisition, matching, analysis																							
Report (farmer and community interventions)																							



## Group 7.B) Project proposal: “Vulnerable communities in Maldives to manage climate change-induced water shortages” (FP007)

**GCF grant:** USD 23,600,000

**Goal:** Deliver reliable sources of drinking water by scaling up and improving water supply systems and by securing freshwater reserves.

### Task 1: Programme Modalities & Evaluation Questions

- **Overall timeline:** Five years; 15 February 2016–14 February 2021
- **Main interventions:** The following were identified as key interventions:
  - Scaling up an integrated water supply system (rainwater, groundwater and desalinated water) to provide safe water to vulnerable households (at least 32,000 people)
  - Introducing decentralized and cost-effective dry season water supply systems (73,000 people in seven island groups)
  - Securing freshwater reserves to enhance long-term resilience on 49 islands
- **Intervention most suitable for evaluation:** Interventions seem to be seen as a big package, aimed at improving water access and quality and to be evaluated as a whole.
- **Targeted beneficiaries:**

A total of 105,000 people on 49 atolls (of about 200 total islands). Each atoll or small island has only one community of about 500 people. The target locations were selected by the Ministry of Environment based on water vulnerability and annual supply.
- **Evaluation questions:**
  - Do people have improved access to fresh drinking water sources during the dry season (and less reliance on government transfers)?
  - Do people suffer less from water-borne diseases?

### Task 2: Theory of Change

The ToC was developed in the work group. The relevant components are as follows:

- **Inputs:**
  - Input 1: Installation of safe water facilities, rain harvesting technology and desalination plants (technological and infrastructure inputs).  
Measurable item: # of items of hardware deployed.
  - Input 2: Policies and plans reviewed and strengthened. Consultations with stakeholders and communities; teams formed and deployed.  
Measurable item: # of guidelines and reports.
  - Input 3: Sustainable Management System, i.e. community institutions and/or utility companies to manage installed plants.  
Measurable item: # of trainings in new technologies and standards.



▪ **Outputs:**

- Output 1: High-quality water system for communities

Measurable output: quality of water and availability during dry seasons

Assumptions: Hardware is functioning and maintained; community decides to trust/use water facilities; development of water quality measurement and supervision mechanism

- Output 2: Effective management of water systems by relevant institutions or utilities

Measurable output: knowledge tests

Assumptions: Management plans and trainings conducted

▪ **Outcomes:**

- Outcome 1: Better health for the beneficiaries/communities

Measurable outcome: Decrease in days with diarrhea

- Outcome 2: Sustained provision of high-quality water

Measurable outcome: Water quality over time without government intervention

▪ **Impacts:**

- For both outcomes 1 and 2: Improved groundwater quality (avoid over-extraction), and improvement of social welfare (increase in days of productive work, decrease of inequality in access to safe water)

### **Task 3: Evaluation Method**

#### **Evaluation strategy: Regression discontinuity design**

Islands were ranked using an objective score that captured historic water-import demand and population size. Evaluation sample will be chosen on either side of the cut-off score.

The treatment group (rainwater harvesting) could be a subset of the 45 islands selected to receive intervention according to the cut-off score. The control group would be composed of a similar number of islands not selected for intervention (i.e. on the other side of the cut-off score).

The islands will be considered as clusters because of the local organization of households. RDD specification will need to apply island fixed effects.

#### **Task 4: Costing – Sample Size and Power Calculations**

None.

#### **Caveats:**

- Sample size needs to be large enough for RDD to work with island fixed effects – for example, 20 treatment versus 20 control islands.
- A potential threat is the occurrence of island-specific random events that make some islands (clusters) not comparable.



- The logistics planning and the budget are issues that must be considered in order to define the evaluation method to be used.

**Task 5: Implementation and Timelining**

Activity	2017		2018				2019				2020				2021				2022					
	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
Evaluation design		█																						
Baseline survey: Design and testing		█			█																			
Baseline survey: Deployment					█	█																		
Baseline report							█	█	█															
Intervention: Construction							█	█	█	█	█	█												
Intervention: Post-deployment (wait-and-watch)												█	█	█	█	█	█	█						
Endline survey: Deployment																						█	█	
Analysis and reporting																							█	█





## Group 8.A) Project proposal: “Business loan program for GHG emissions reduction in Mongolia” (FP028)

**GCF grant:** USD 20,000,000

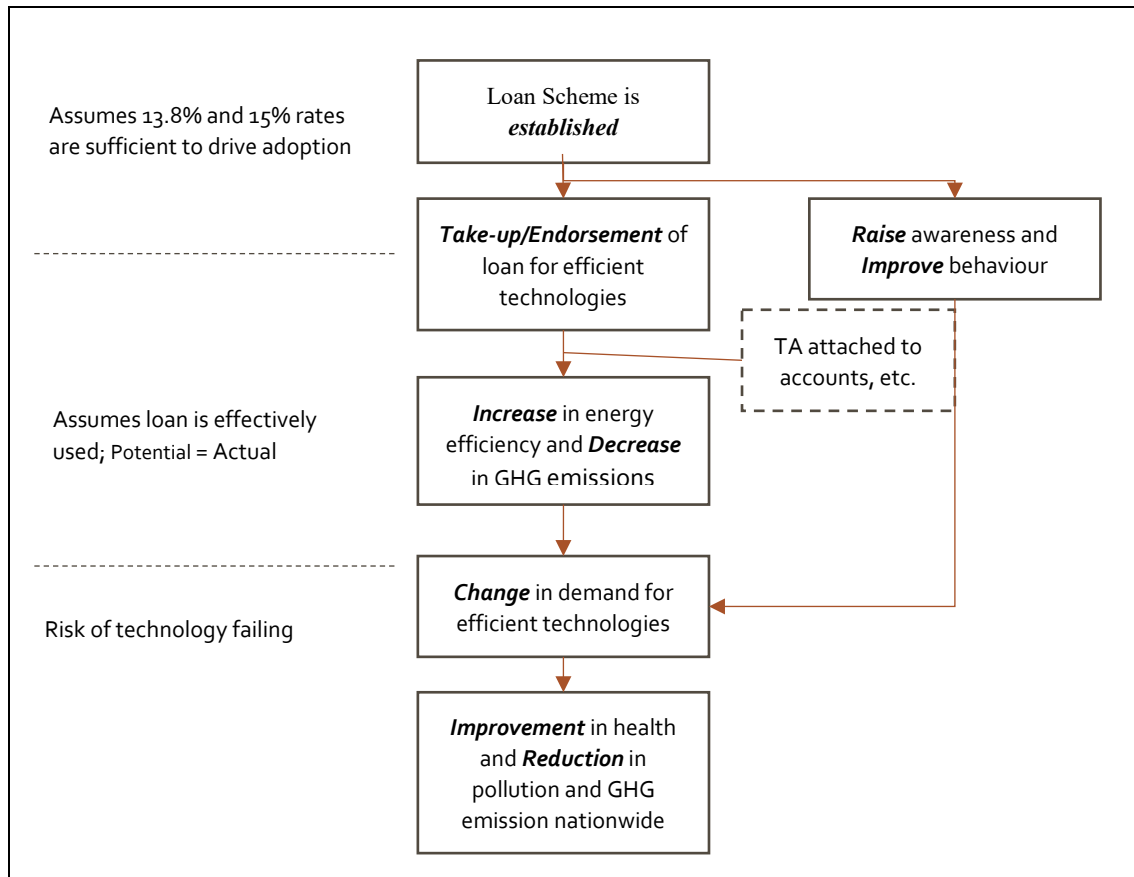
**Goal:** To provide loan options to medium, small, and micro enterprises (MSMEs) at slightly below market interest rates for the installation of energy efficient processes and equipment within existing or new factories and promote gender-equal access to funding.

### Task 1: Programme Modalities and Evaluation Questions

- **Overall timeline:** 5–8 years, from 2016
- **Main interventions:**
  - Offer concessional loans to MSMEs who produce, trade and use efficient technologies
  - Offer refunds for technology test bedding with successful results (20% emission reduction/EE)
  - Organize capacity-building and awareness-raising activities
- **Targeted beneficiaries:** MSMEs
- **Evaluation questions:**
  - (Perception) How many of the MSMEs believe that investing in efficient technologies is a viable business case?
  - (Demand) What proportion of the equipment owned/used by end users are efficient technologies? Efficient technologies in this case are those that are 20% energy efficient and reduce emissions by 20% or more.



## Task 2: Theory of Change



## Task 3: Evaluation Methods

- RDD was determined to be the most appropriate evaluation.
  - Given that beneficiaries have to apply for the loan, a randomized granting scheme to select beneficiaries was clearly not possible nor appropriate.
  - The discontinuity design will also allow for the creation of a very similar control group near the specified cut-off.
- The evaluation groups are defined as follows:
  - Treatment group: A subset of successful loan applicants who met the set discontinuity cut-off
  - Control 1: A subset of unsuccessful loan applicants whose scores are near the cut-off
  - Control 2: A set of MSMEs who did not apply for the loan

## Task 4: Costing – Sample Size and Power Calculations

- (Perception) It was estimated that around 20% of MSMEs in Mongolia are aware that there is a business case for investing in efficient technologies.
  - The target level identified in the group discussion was 40%.



- The sample size was determined to be 76 respondents per group, after adding 20% to account for attrition.
  - Minimum detectable effect was set to 0.2 and P to 0.2. Power is set to 80% and confidence level at 95%.
- (Demand) It was estimated that only around 10% of the equipment that end users owned or use are considered efficient technologies ( $\geq 20\%$  EE or Emission Reduction)
  - The target level identified in the group discussion was 30%.
- The sample size was determined to be 20 respondents per group, after adding 20% to account for attrition.
  - Minimum detectable effect was set to 0.2 and P to 0.1. Power is set to 80% and confidence level at 95%.
- The data will be collected using a structured survey.



### Task 5: Implementation and Timelining

Num	Activity	Start Date	End Date	Duration (in days)	Responsible
<b>1</b>	<b>Formation of core team</b>			<b>10-30</b>	
1.1	Implementers	1/20/2019	1/30/2019	10	Evaluation Team
1.2	Monitors/Auditors (if different)	1/30/2019	3/1/2019	30	Evaluation Team
<b>2</b>	<b>Desk review</b>	<b>3/1/2019</b>	<b>3/22/2019</b>	<b>21</b>	
2.1	Literature review on topic	3/1/2019	3/8/2019	7	Evaluator
2.2	Project documentation (data, reports, operating and monitoring manuals, etc.)	3/8/2019	3/22/2019	14	Evaluation Team/Implementer
<b>3</b>	<b>Evaluation strategy and design</b>	<b>3/22/2019</b>	<b>5/29/2019</b>	<b>68</b>	
3.1	Evaluation design	3/22/2019	4/11/2019	20	Evaluation Team
3.2	Finalize targeted respondents	4/11/2019	4/18/2019	7	Evaluation Team/Implementer
3.3	Finalize key outcomes	4/18/2019	4/25/2019	7	Evaluation Team/Implementer
3.4	Sample size (power calculations)	4/25/2019	4/30/2019	5	Evaluation Team
3.5	Report evaluation design to stakeholders	4/30/2019	5/7/2019	7	Evaluation Team
3.6	Feedback from Stakeholder	5/7/2019	5/22/2019	15	Implementers/Monitors
3.7	Revise evaluation design (sample, question/outcomes)	5/22/2019	6/6/2019	15	Implementers/Monitors
3.8	Sampling frame and strategy (listing vs. Random walk)	6/6/2019	6/13/2019	7	Evaluation Team
#	Ethical approval/IRB	6/13/2019	7/13/2019	30	Evaluation Team/Implementer
<b>4</b>	<b>Data Collection</b>	<b>4/25/2019</b>	<b>10/29/2019</b>	<b>187</b>	
4.1	Develop Data Collection Tools (DCT)	4/25/2019	6/24/2019	60	Evaluation Team/Implementer
4.2	Select and finalize survey staff/local partner	4/28/2019	5/8/2019	10	Evaluation Team
4.3	Plan logistics of data collection	5/18/2019	5/28/2019	10	Evaluation Team/Survey staff
<b>Num</b>	<b>Activity</b>	<b>Start Date</b>	<b>End Date</b>	<b>Duration</b>	<b>Responsible</b>
4.4	(Back)Translation and contextualization of DCT	5/30/2019	6/14/2019	15	Survey Staff
#	Programing DCT if CAPI	5/30/2019	6/14/2019	15	Survey Staff
#	Set up monitoring of data collection	5/30/2019	6/14/2019	15	Evaluation Team/Survey staff
4.5	Enumerator training	6/14/2019	6/19/2019	5	Evaluation Team/Survey staff
4.6	Revise DCTs based on training feedback	6/19/2019	6/24/2019	5	Evaluation Team
4.7	Piloting of DCT	6/24/2019	7/1/2019	7	Survey Staff
4.8	Analysis of piloting data	7/1/2019	7/11/2019	10	Evaluation Team
4.9	Revise DCT based on piloting data and feedback	7/11/2019	7/18/2019	7	Evaluation Team
#	Enumerator retraining	7/18/2019	7/20/2019	2	Survey Staff
4.10	Collection of data	7/20/2019	8/29/2019	40	Survey Staff
#	Data coding (if PAPI)	8/29/2019	9/18/2019	20	Survey Staff
4.11	Quality checking the data	9/18/2019	10/8/2019	20	Evaluation Team
4.12	Revision of incorrect/illogical information (by recall/reinterview)	10/8/2019	11/7/2019	30	Survey Staff
<b>5</b>	<b>Data Analysis</b>	<b>11/7/2019</b>	<b>1/6/2020</b>	<b>60</b>	
5.1	Data cleaning	11/7/2019	12/7/2019	30	Evaluation Team
5.2	Analysis of cleaned data	12/7/2019	1/6/2020	30	Evaluation Team
<b>6</b>	<b>Reporting of results</b>	<b>1/6/2020</b>	<b>6/4/2020</b>	<b>150</b>	
6.1	First draft of baseline/midline/endline report	1/6/2020	4/5/2020	90	Evaluation Team
6.2	Review/Comments from stakeholders	4/5/2020	4/25/2020	20	Implementer
7.3	Final draft of report (after consultation)	4/25/2020	5/25/2020	30	Evaluation Team
<b>7</b>	<b>Dissemination of results (Workshop, presentations, policy briefs, courses, papers, etc.)</b>	<b>5/25/2020</b>	<b>6/14/2020</b>	<b>20</b>	<b>Evaluation Team</b>



### APPENDIX III: PROJECT POSTERS (THEORY OF CHANGE)

#### Burkina Faso

## Yeleen Project on Rural Electrification through Private Sector-Driven Green Mini Grids Burkina Faso | African Development Bank (AfDB)



**Project description** The Yeleen mini-grids project aims to promote private-sector installation of 100 mini-grids, providing electricity access to 335,000 people in rural communities.

- (1) Restructuring institutional/regulatory environment for private sector-driven rural electrification
- (2) Supply-side intervention to improve the affordability of electricity through a one-off capital grant (including RBF mechanism)
- (3) Demand stimulation of productive use of energy to develop sustainable livelihoods

**Project Objectives** To develop and validate an innovative, rural electrification model that:

- o Increases mini-grid installation in rural areas
- o Does not require recurrent government subsidies
- o Caters for general access to and productive use of electricity

#### Main results from evaluation:

- *What is the effect of a supply-side results-based financing mechanism on the number of (low-emissions) connections and the energy access rate?*
- *What effect does microfinance for rural users have on the target population’s productivity, ability to pay for electricity, and other socio-economic indicators?*
- **Plans for data collection**
- *Baseline data will be collected in late 2018, endline data in 2021 (indicative)*

#### Timeline

Project approval: Pending

Implementation period: 2018-2021 (indicative)

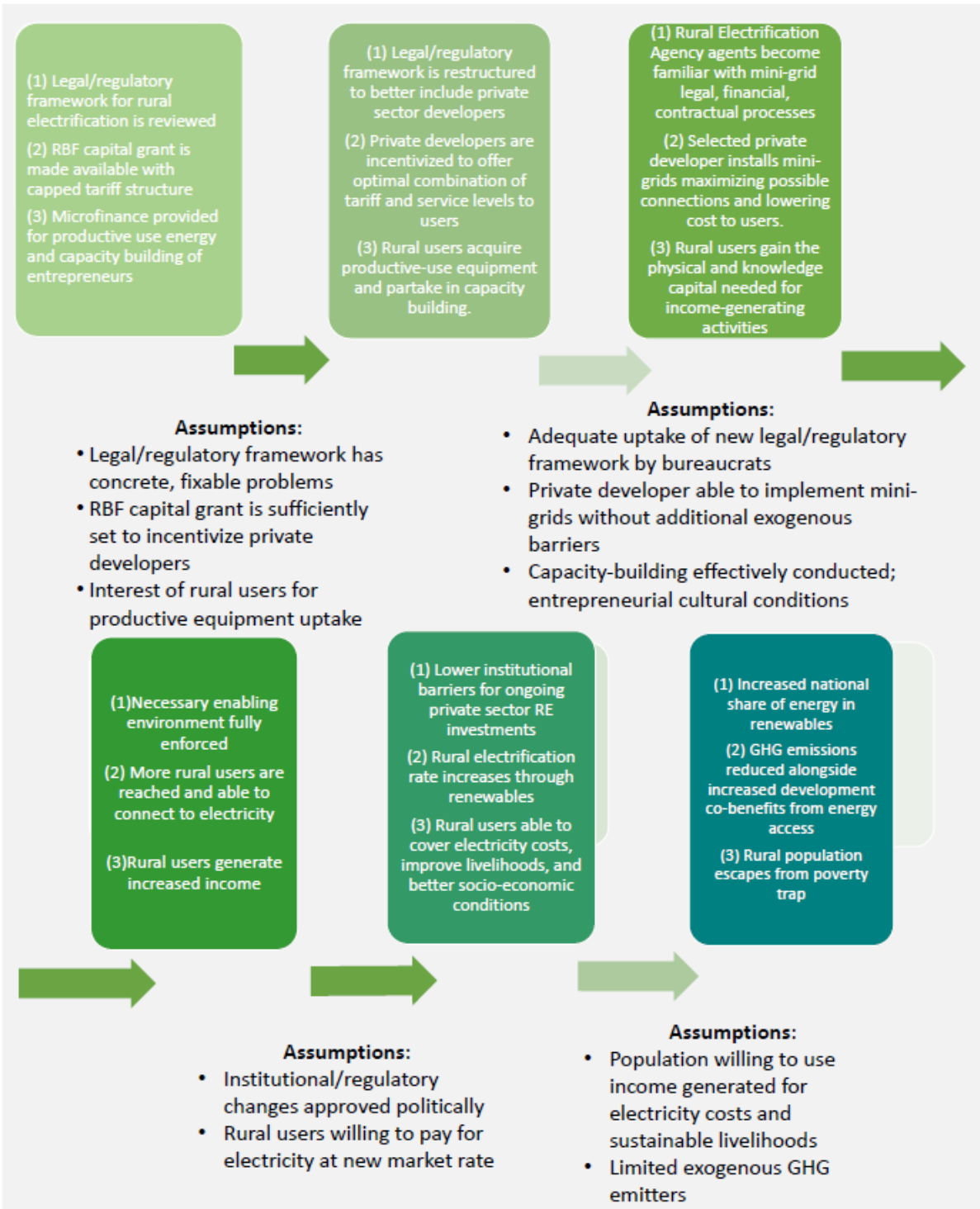
Project end: 2021



Adiaratou Binta Bah, Principal Financial Sector Relationships Officer, AfDB, [a.bahobre@afdb.org](mailto:a.bahobre@afdb.org)



# THEORY OF CHANGE



Adiaratou Binta Bah, Principal Financial Sector Relationships Officer, AfDB, [a.bahobre@afdb.org](mailto:a.bahobre@afdb.org)



**Democratic Republic of the Congo**

# Green-Mini-Grid Programme

DR Congo | AfDB



**Project description**

Increasing energy access for the off-grid population in DR Congo

**Project Objectives**

- Replacing diesel-based off-grid generation with RE sources
- Reinforcing economic and social resilience of low income population
- GCF's and AfDB's participation critical to fill the financial gap
- Demonstrate the commercial viability of first 3 pilots, 30 MW

**Main expected results from programme:**

- *Substitution of fossil fuels with clean and affordable solar power*
- *Est. GHG emission reductions of 1.25 Mt CO2 eq*
- *Piloting an alternate pathway to hydro that addresses DRC's future electricity demand*
- *If successful, subsequent pipeline of 30 GMG to be replicated in country*

**Plans for data collection**

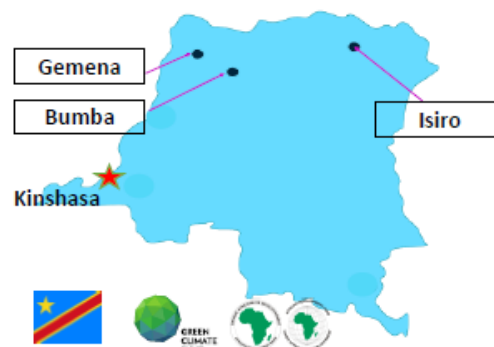
- *AfDB to conduct biannual supervision*
- *Annual performance reports provided to GCF*

**Timeline**

Project approval: October 2018

Tendering Process: Q3 2018 – Q1 2019

Implementation: 2019 – 2021

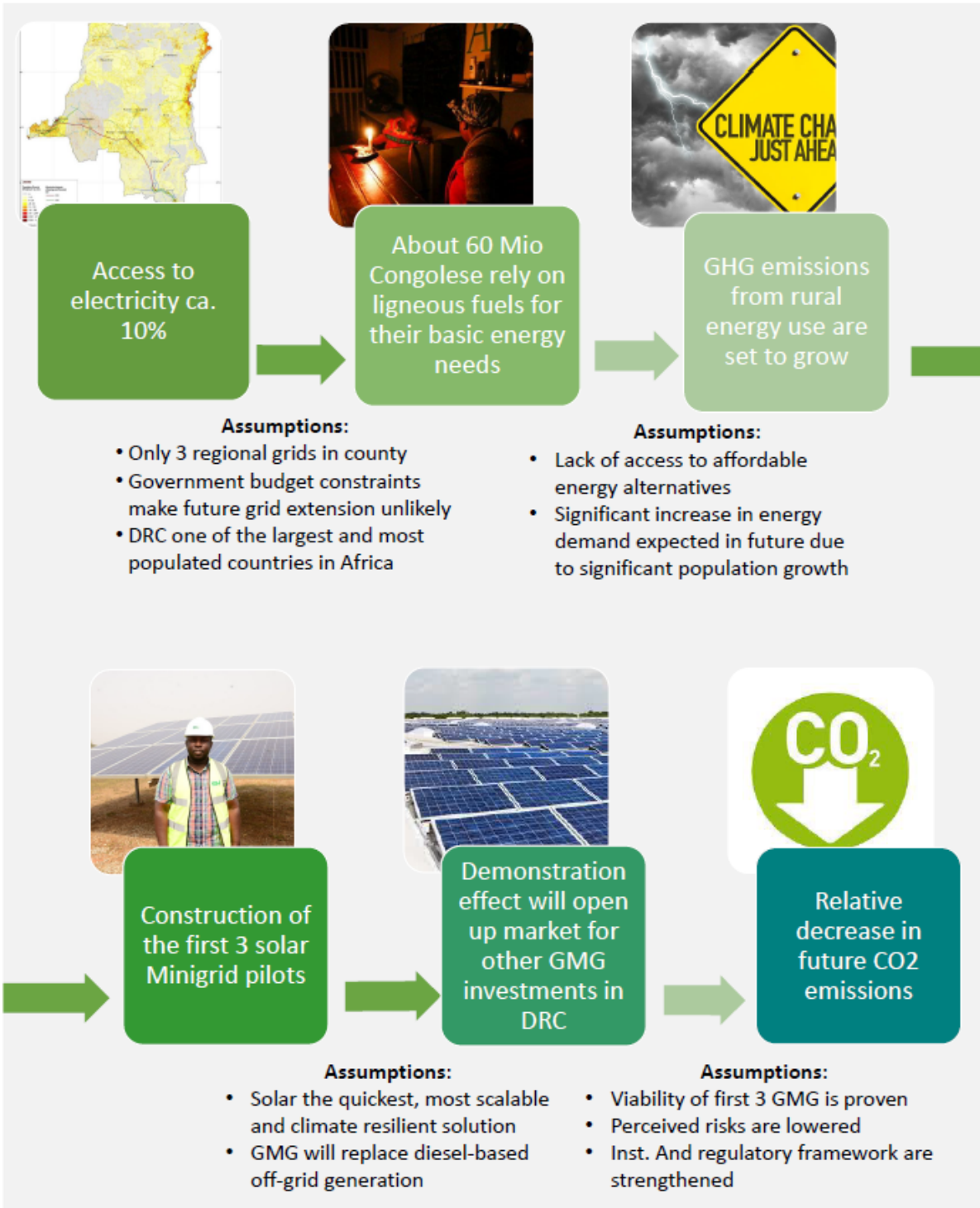


Gerrit Held, Consultant at Private Sector Facility of GCF, E-Mail: gheld@gcfund.org



# THEORY OF CHANGE

Building the future energy grid in DR Congo



• Gerrit Held, Consultant at Private Sector Facility of GCF, E-Mail: gheld@gcfund.org





Peru (FP001)

**PROJECT FP001**

**Building the Resilience of Wetlands in the Province of Datem del Marañon, Peru**




**PROJECT DESCRIPTION**

The Wetlands project works with 120 indigenous communities, from 7 Amazonian indigenous peoples, to improve their capacities to face the effects of climate change through the sustainable use of natural resources, and the protection of the rich carbon stocked wetlands they inhabit.

**PROJECT OBJECTIVES**

*Adaptation*

- To improve the indigenous communities resilience capacities in the rich carbon stocked wetlands of Datem del Marañon.
- To improve the livelihood of indigenous communities.

*Mitigation*

- To reduce the greenhouse gases emissions caused by deforestation.

**MAIN RESULTS FROM EVALUATION**

Evaluation will be focused on the following indicators: a) Tons of carbons avoided, b) Families benefited, c) Coverage of ACAs – Environmental Conservation Area (protected territory + implementation of management plans), d) Operation of bio-businesses (continuity and profitability), e) Operation of meteorological stations, and f) Planning of low-carbon emission activities.

**PLANS FOR DATA COLLECTION**

- Implementation of Monitoring and Evaluation System: this tool will be the baseline for the next evaluations to come. It will support itself on interviews, focus groups, surveys, field visits, among others.
- External evaluations (consultancies).

**TIMELINE**

- Project approval: November, 2015
- Signature of agreement: December, 2016
- Fulfillment of conditions: May, 2017
- 1<sup>st</sup> disbursement: June, 2017
- Beginning of activities: June, 2017
- Estimated time of closure: May, 2022



Alberto Paniagua | Executive Director | [apaniagua@profonanpe.org.pe](mailto:apaniagua@profonanpe.org.pe)  
 Claudia Godfrey | Development and Supervision Director | [cgodfrey@profonanpe.org.pe](mailto:cgodfrey@profonanpe.org.pe)



# THEORY OF CHANGE PROJECT FP001 Building the Resilience of Wetlands in the Province of Datem del Marañon, Peru

## ACTIVITIES

- Indigenous people registered
- New ACA established
- Land use plan approved
- Conflict resolution authority
- Province climate change strategy implemented
- Climate monitoring system in operation
- Regional climate change strategy updated

- Assumptions:
- Interest from indigenous communities
  - Political disposition

- Natural resources management plans under implementation
- Development and implementation of ACAs management tools
- Associations in operation
- Territorial unit plans

- Assumptions:
- Interest from indigenous communities and women to participate in the project activities
  - Political disposition

- Financially sustainable bio-business in operation
- Bio-business using solar energy and innovations in production methods and tools
- Commercialization strategies developed
- Certification programs introduced
- International commercial links operating

- Assumptions:
- Interest from indigenous communities and women to participate in the project activities
  - Stable / favorable market conditions
  - Adequate and timely co-funding
  - Technological offers available

- Hydrological modeling
- Contingency plan
- Anthropological, economic and management resources observation systematized
- Project description and lesson learned prepared
- Communication strategy implemented (including website)

- Assumptions:
- Interest from indigenous communities
  - Technological offers available
  - Timely collaboration with government entities
  - Political disposition



### ASSUMPTIONS

- Peruvian Government develops and implements a continuous monitoring methodology for deforestation
- Communities and local Governments fulfill their land use plans against illegal extractive activities
- Indigenous communities agree on territory demarcation
- Stability in the legal and normative processes of land use planning
- Beneficiaries and the Government are efficient in the implementation of their natural resources plans
- The authorities approve the management plans which give an added value to the bio-businesses
- The communities ensure their approved bio-businesses management plans, participate in bio-businesses promoted by their leaders
- Financial disposition and capacity to get additional funds
- Stable / favorable market conditions

MANAGEMENT OF AREAS THAT CONTRIBUTE TO THE PRODUCTION OF GREENHOUSE GASES IS IMPROVED

INSTITUTIONAL AND NORMATIVE SYSTEMS ARE STRENGTHENED

INSTITUTIONAL AND NORMATIVE SYSTEMS FOCUSED ON CLIMATE CHANGE ARE STRENGTHENED

MITIGATION

ADAPTATION

**MAIN GOAL**  
TO BUILD RESILIENCE AMONG THE INDIGENOUS COMMUNITIES THROUGH THE SUSTAINABLE USE OF NATURAL RESOURCES

**PARADIGM SHIFT**  
SHIFT TO LOW-EMISSION SUSTAINABLE DEVELOPMENT PATHWAYS

Alberto Paniagua | Executive Director | [apaniagua@profonanpe.org.pe](mailto:apaniagua@profonanpe.org.pe)  
Claudia Godfrey | Development and Supervision Director | [cgodfrey@profonanpe.org.pe](mailto:cgodfrey@profonanpe.org.pe)



Malawi (FP002)

FP002: Saving Lives and Protecting Agriculture-Based Livelihoods in Malawi: Scaling Up the Use of Modernized Climate Information and Early Warning Systems (M-CLIMES)

UNDP| Malawi



About the project:

Aligned to the development priorities of the Government of Malawi, the project aims to strengthen the resilience of vulnerable communities to impacts of climate change. The project will ensure that vulnerable communities have access to climate/weather information they need and, capacities and tools to use the information to better manage climate risks.

For whom ?

The project will benefit 3 million people including women, small-holder farmers, fishers and flood prone communities in 21 districts.

How ?

The project goal will be achieved through understanding of weather information needs of vulnerable households, development of information products tailored to the needs of the beneficiaries, upgradation of hydro-met infrastructure and capacity development of hydro-met agencies to generate reliable information, development of platforms and, strengthening of extension services for timely dissemination of weather/climate information, and, building capacities of vulnerable communities and local government officials to prepare for and respond to climate risks.

Timeline: Project approval: 2015

Implementation period: Six years, 1st July 2017 – 30th June 2023

Resources: USD 16,264,545

Coverage: 3 million people in 21 districts

Partners: National, District and Local Level authorities, NGOs, Private Sector and Academia.

Reporting Timeline



Evaluation objectives:

- Evaluate the impact of the project based on the theory of change by use of counterfactual.
- Establish a robust baseline for subsequent quantitative and qualitative impact evaluation studies i.e. at midterm and end of the project.

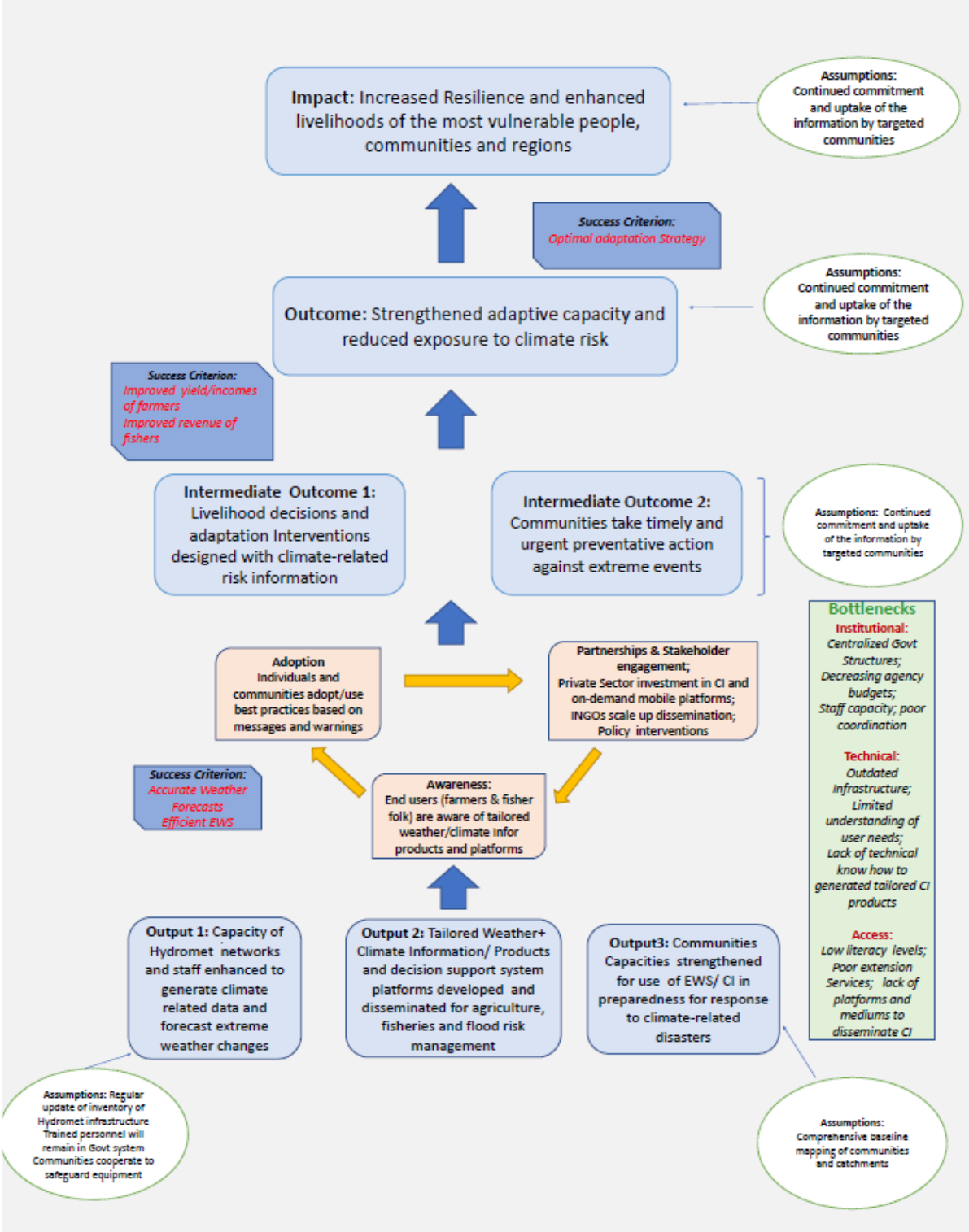
Evaluation Plans:

- Quantitative survey covering appropriate number of households to elicit information on; climate hazards; how people access weather information; climate information needs of people and, household information;
- Geo-spatial analysis for identification of control and treated groups





# THEORY OF CHANGE





**GREEN  
CLIMATE  
FUND**

Independent  
Evaluation  
Unit

TRUSTED **EVIDENCE.**  
INFORMED **POLICIES.**  
HIGH **IMPACT.**

## Viet Nam (FP013)



### Project description:

Recognizing the impacts of sea level rise, increased flooding and increased incidence of extreme events, the objective of the project is to Increase resilience of vulnerable coastal communities to climate change related impacts in Viet Nam.

### Project Objectives

- Storm and flood resilient design features added to 4,000 new houses on safe sites, benefiting 20,000 poor and highly disaster-exposed people in 100 communes
- Regeneration of 4,000 hectares of coastal mangrove storm surge buffer zones using successful evidence-based approaches
- Enhanced climate, loss and damage data for private and public sector application in all 28 coastal provinces of Viet Nam

### Main results from evaluation:

- Storm and flood resilient design features added to 4,000 new houses on safe sites, benefiting 20,000 poor and highly disaster-exposed people in 100 communes.
- Regeneration of 4,000 hectares of coastal mangrove storm surge buffer zones using successful evidence-based approaches
- Increased access to enhanced climate, loss and damage data for private and public sector application in all 28 coastal provinces of Viet Nam

### Plans for data collection

- *Baseline data will be collected in 2017, endline data in 2022*

### Timeline

Project approval: June 2016

Implementation period: 5.0 years

Project end: 11 July 2022

GCF Funding amount: 29.523 million USD



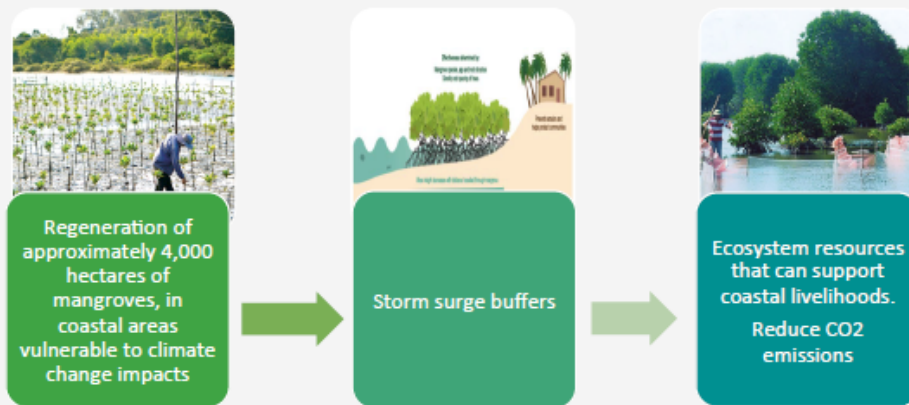
GCF NDA of Vietnam: Dr. Pham Hoàng Mai, General Director  
DSENRE, Ministry of Planning and Investment; Email: [hmaipham@mpi.gov.vn](mailto:hmaipham@mpi.gov.vn)  
Contact information: Ms. Nguyen Thi Dieu Trinh, Email: [trinh4mpi@gmail.com](mailto:trinh4mpi@gmail.com), Tel: +84-8043310



### THEORY OF CHANGE



**Assumptions:** Government housing programme, targeting a total of 26,500 houses continues as planned.



**Assumptions:** Extreme weather events do not destroy fragile seedlings.



**Assumptions:** Data collection efforts in first year of project are successful.



Ecuador (FP019)

Priming Financial and Land-Use Planning Instruments to Reduce Emissions from Deforestation

Ecuador | UNDP – MAE – MAG



Project description

This project will implement the prioritized policies and measures identified in Ecuador’s REDD+ Action Plan. The REDD+ AP will contribute to reduce emissions from the land use, land use change and forestry (LULUCF) sector, which represents 30% of GHG emissions of the country.

Project Objectives

- Invest in enabling policies to reduce the drivers of deforestation and their associated emissions.
- Implement financial and economic incentives in non-forest areas to control agricultural expansion and support transition to sustainable agricultural systems.
- Implement financial and non-financial mechanisms for restoration, conservation and connectivity.
- Support the implementation of the UNFCCC Warsaw Framework for REDD+.

Main results from evaluation (1st year):

- Around 160,000 ha conserved through the Socio Bosque Programme, including forest conservation monitoring, and investment plans for socioeconomic development.
- Support to 101 Socio Bosque Programme beneficiaries as Honorary Inspectors for community control.
- Agreement with FAO for the implementation of community forestry monitoring activities.
- Development of a new National Forestry Control Strategy for wildlife control and to stop illegal logging.
- Draft technical standard for Non-Timber Forest Products.
- A total of 285,823 ha of watersheds conserved and/or restored through three Water Funds FONAG, FORAGUA and FONAPA.
- A total of 2,302 ha in dry forest restoration and 120 ha for assisted natural regeneration (Loja – El Oro).

Plans for data collection

- The project counts with most of the baseline information. It is planned to complete on the next months the Environmental and Social Impact Assessment (ESIA) and the Environmental and Social Management Plan (ESMP), in order to update the information for the prioritized intervention areas.
- In order to follow up the project implementation, the implementing parties of the project communicate their advances through quarterly reports.

Timeline

Project approval: May 22, 2017.  
Implementation period: 5 years.  
Project end: May 21, 2022.

The project is implemented jointly with a GEF project, and the support of Ministries of Environment and Agriculture by an inter-ministerial agreement signed a year ago.

Around 1 million inhabitants will be benefited with the implementation of the project in Ecuador’s Amazonia.



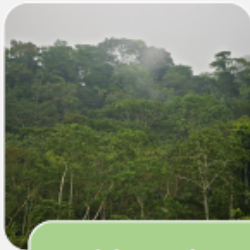
Programa Integral Amazónico PROAmazonia, PNUD Ecuador, egarcia@proamazonia.org



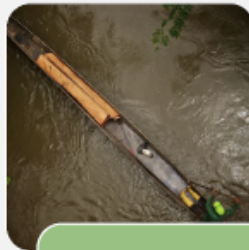
# THEORY OF CHANGE

*Impact: Reduce deforestation and degradation of forests through conservation, sustainable forest management, and the optimization of the other land uses to reduce pressure on forests. Thus contributing to the reduction of GHG emissions.*

*Goal: Contribute to the National REDD+ Action Plan goal by reducing 13,35 millions Tons of CO2 eq. between 2017 to 2021.*



Public policies to promote conservation and sustainable production



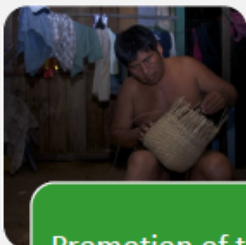
Strengthening of forest control and territorial planning



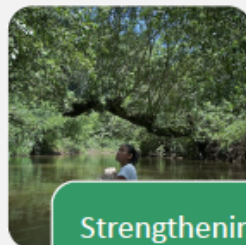
Sustainable and efficient agricultural and forestry practices

### Assumptions:

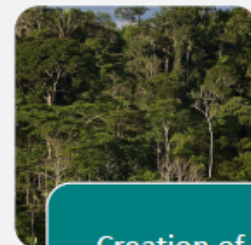
- People in the territory are aware of the need to preserve their forests and to be part in the decision making for the construction of their own tools of territorial planning. **Land-use development plans in 5 provinces, 12 cities, and 5 life plans for Indigenous Peoples.**
- A new National Forestry Control Strategy is being developed to improve forest control and stop illegal logging.
- Increase the value of the forests by promoting the value chain of non-timber forests products and the **development of innovative products based on biodiversity.**
- Increase the productivity of agricultural areas close to forests with greater vulnerability to deforestation, so as not to expand agricultural areas. **45,000 ha transformed into sustainable productive systems.**
- The programme has developed the **road maps for the sustainable Palm Oil, Cocoa and Coffee production**, for the transition to more sustainable and deforestation free agricultural systems, which includes: standards for deforestation free commodities, traceability and certification systems.
- The incorporation of agroforestry and silvopastoral systems in prioritized grasslands is promoted.
- Generating agreements with the farmers and communities for the implementation of integrated management farm plans, with landscape approach and long-term marketing schemes that guarantee deforestation free production. **75,000 beneficiary farmers.**
- Agreements with communities to preserve their forests, and promote **co-benefits such as: conservation of watersheds, biodiversity and landscapes restoration.**
- Connect with responsible markets and companies that are willing to pay for deforestation free products. Ecuador will create a **new label that will be "Free Deforestation Products". 4 products with this certification.**
- Strengthen the institutionality for REDD+ AP implementation which includes the National Forest Monitoring System, the SIS, and the links of them with other relevant information systems.
- **Implementation of the Safeguards Roadmap, capacity building and knowledge management.**



Promotion of the demand for deforestation free products



Strengthening and achieving sustainability of conservation initiatives



Creation of Enabling Conditions for REDD+

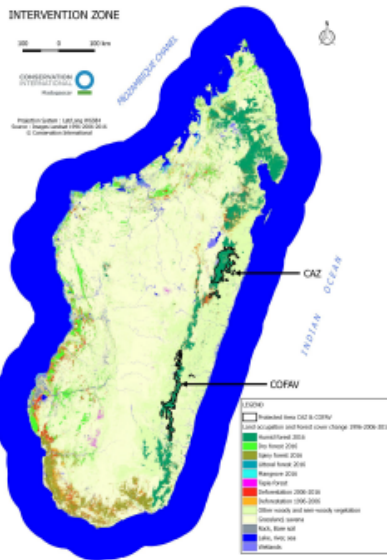




Madagascar (FP026)

# FP 026: Sustainable Landscapes in Eastern Madagascar

Madagascar | Conservation International and European Investment Bank



**Project description:**

The public and private sectors will collaborate through a landscape approach to promote climate change mitigation and adaptation within the Forest corridors Ankeniheny Zahamena (CAZ) and Ambositra Vondrozo (COFAV) for the public sector, and eastern Madagascar for the private sector.

**Project Objectives:**

- Increase resilience of vulnerable farmers to climate variability and CC impacts
- Reduce GHG emissions from deforestation and forest degradation
- Protection of native forests and other high biodiversity habitats
- Improve access to energy with low emission electricity production

**Main results for evaluation:**

- 85,700 highly vulnerable people adopting sustainable agriculture and are more resilient to climate change
- 683,452 hectares of native forests (CAZ et COFAV) conserved, carbon stock maintained, and forests more resilient to climate change
- 448,000 people benefiting from access to renewable energy sources
- 1MtCO2eq per year reduced : 5MtCO2 for 5 years ( Public sector - CI) 10 MtCO2 for 10 years (Private sector \*total with CI - EIB)

**Plans for data collection**

- Baseline data will be updated in 2019, endline data in 2027
- Vulnerability index will be developed in 2019

**Timeline**

Project approval: 2016

Implementation period: May 2018 - December 2022 for the Public sector component and until 2027 for the private sector component

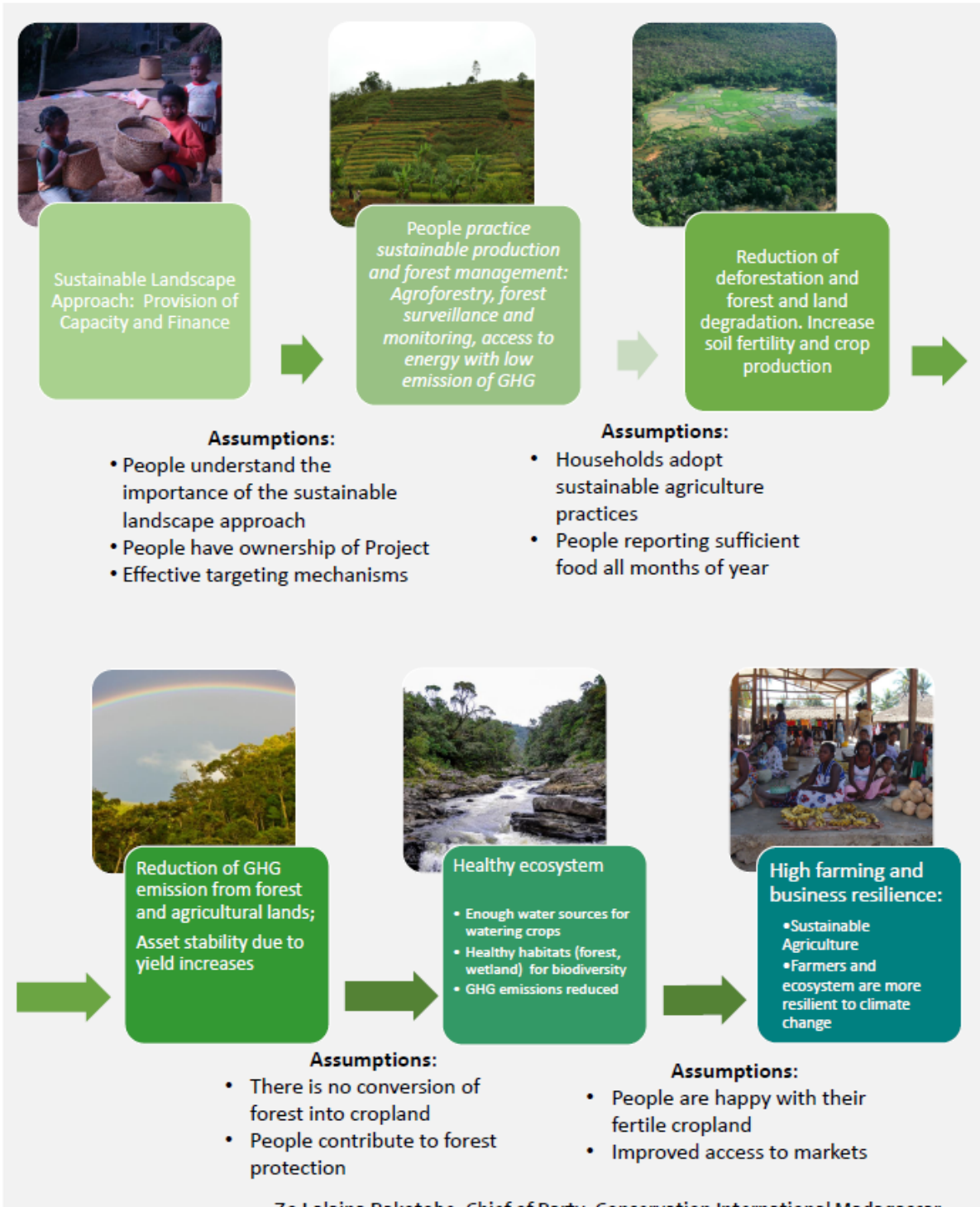
Project end: 2027



Zo Lalaina Rakotobe, Chief of Party, Conservation International Madagascar, zrakotobe@conservation.org



# THEORY OF CHANGE



Zo Lalaina Rakotobe, Chief of Party, Conservation International Madagascar, zrakotobe@conservation.org



Mongolia (FP028)

FP028: MSME Business Loan Program for GHG Emission Reduction Mongolia | XacBank LLC



**Project description:** The GCF USD 20M facility is aimed at the Mongolian MSME market and covers all parts of the energy efficiency and renewable energy market supply chain, with the goal of incentivizing the installation of these products in Mongolia;

**Project Objectives:**

- 1,194,323.98 million tCO2eq will be reduced or avoided;
- 50% of sub-projects must be women-led MSMEs.

**Main results from evaluation:**

- GCF program began implementation in August, 2017 and first sub loan was disbursed in November 2017.
- As of December 31, 2017:
  - the total tCO2 emission reduction was 64,163.21
  - 78% of the total disbursed loans were disbursed to women led MSMEs.

Each financed sub-project under the MSME program was screened and evaluated for its potential environmental and social impacts during the sub loan assessment process. One sub project evaluated as ESM risk category B and all others evaluated as category C. The program did not support high-risk, Category A, subprojects where the environmental risks and impacts were significant, unprecedented, and irreversible. There are no re-evaluations as of yet because sub loan disbursement started in November 2017. Monitoring assessments should be conducted after a year after the disbursement of the loans.

**Plans for data collection**

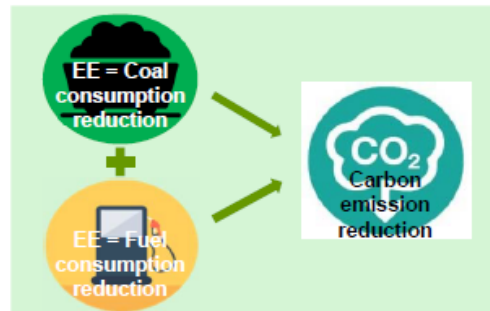
- Baseline data will be collected during the whole project lifetime.

**Timeline**

Project approval: December 2016

Implementation period: 5-8 years

Project end: 2022-2025

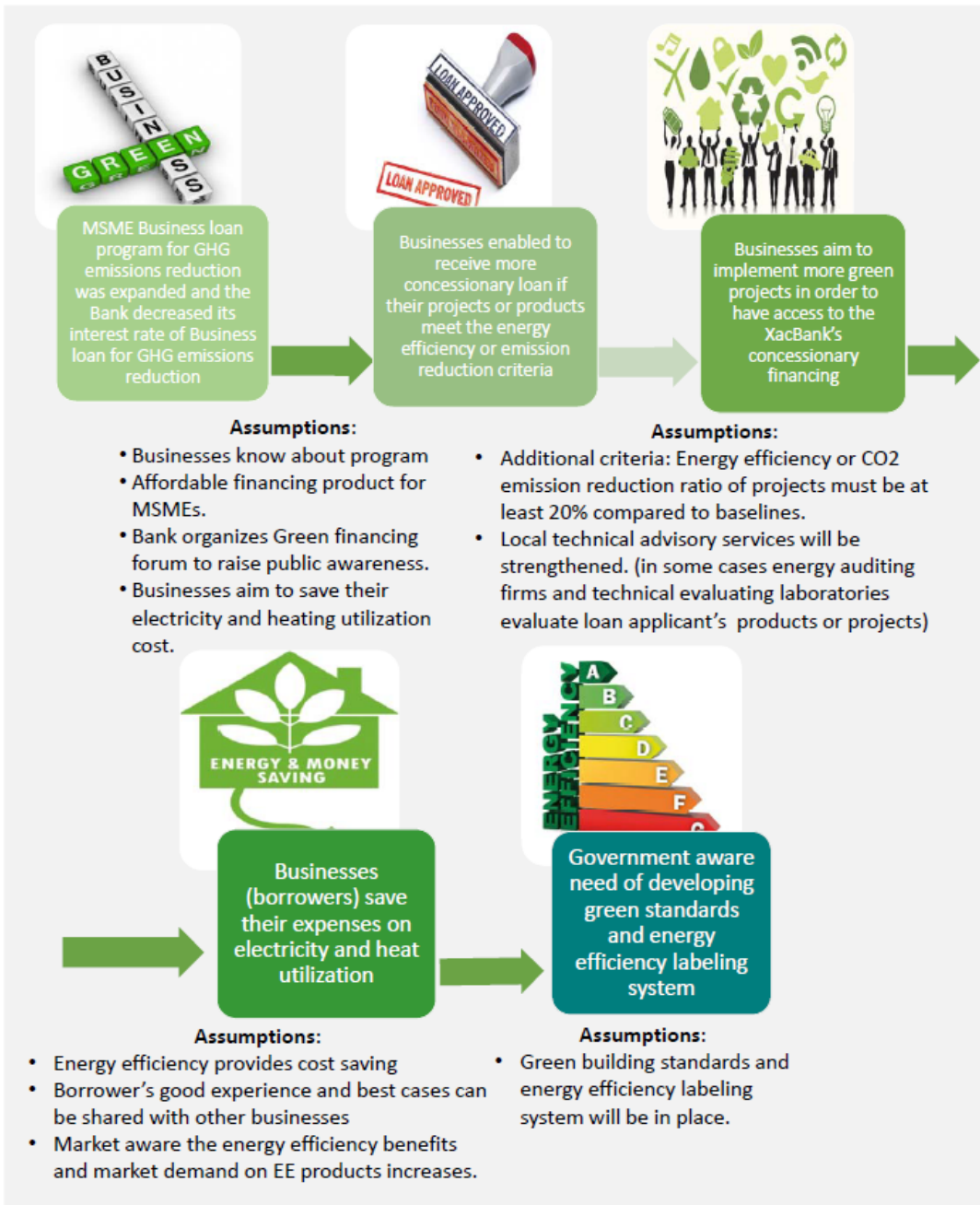


Tuul Galzagd, Director of Eco Banking Department, XacBank, tuul.g@xacbank.mn



# THEORY OF CHANGE

MSME Business Loan Program for GHG Emissions Reduction



Tuul Galzagd, Director of Eco Banking Department, XacBank, tuul.g@xacbank.mn



**Uganda (FP034)**



**105972: BUILDING RESILIENT COMMUNITIES, WETLAND ECOSYSTEMS AND ASSOCIATED CATCHMENTS IN UGANDA**

UGANDA | United Nations Development Programme



**PROJECT DESCRIPTION**

The project seeks to restore and sustainably manage wetlands and support target communities in wetland areas of Uganda to reduce the risks of climate change posed to agricultural-based livelihoods.

**PROJECT OBJECTIVES**

1. To restoration and manage wetland hydrology and associated forests
2. To improve agricultural practices and alternative livelihood options in the wetland catchment
3. To strengthen access to climate and early warning information to farmers and other target communities

Executing Agency	United Nations Development Programme (UNDP)		
IMPLEMENTING PARTNER	Ministry of Water and Environment (MWE)		
TARGET AREA	Buhweju, Mitooma, Rubirizi, Sheema and Rukungiri, Eastern (Budaka, Butaleja, Pallisa, Ngora, Bukedea, Mbale, Kaliro, Namutumba, Kibuku and Tororo).		
BENEFICIARIES	Direct	800,000 people	
	Indirect	3,946,366 people	

**EVALUATION PLAN**

Timing of Evaluation	Evaluation Type	Evaluation focus	Evaluation Questions	SCHEDULE	
				START	END
Baseline survey				Sept 2018	Nov 2018
Mid Term Evaluation	Formative	Learning	Is the project <b>Relevant</b> to Uganda's development priorities? Is project implementation <b>Effective</b> ? Have project targets been met? Have project resources been used <b>efficiently</b> to deliver outputs What is the <b>Impact</b> of the project on resilience of target communities and ecosystems to climate change impacts? Are project results <b>Sustainable</b> ?	Jan 2021	June 2021
Terminal Evaluation	Impact / Summative	Accountability and Learning	Is the project <b>Relevant</b> to Uganda's development priorities? Is project implementation <b>Effective</b> ? Have project targets been met? Have project resources been used <b>efficiently</b> to deliver outputs What is the <b>Impact</b> of the project on resilience of target communities and ecosystems to climate change impacts? Are project results <b>Sustainable</b> ?	Jan 2025	March 2025

**PROJECT TIMELINE**

START DATE	30 <sup>th</sup> June 2017
END DATE	30 <sup>th</sup> June 2025
DURATION	8 years

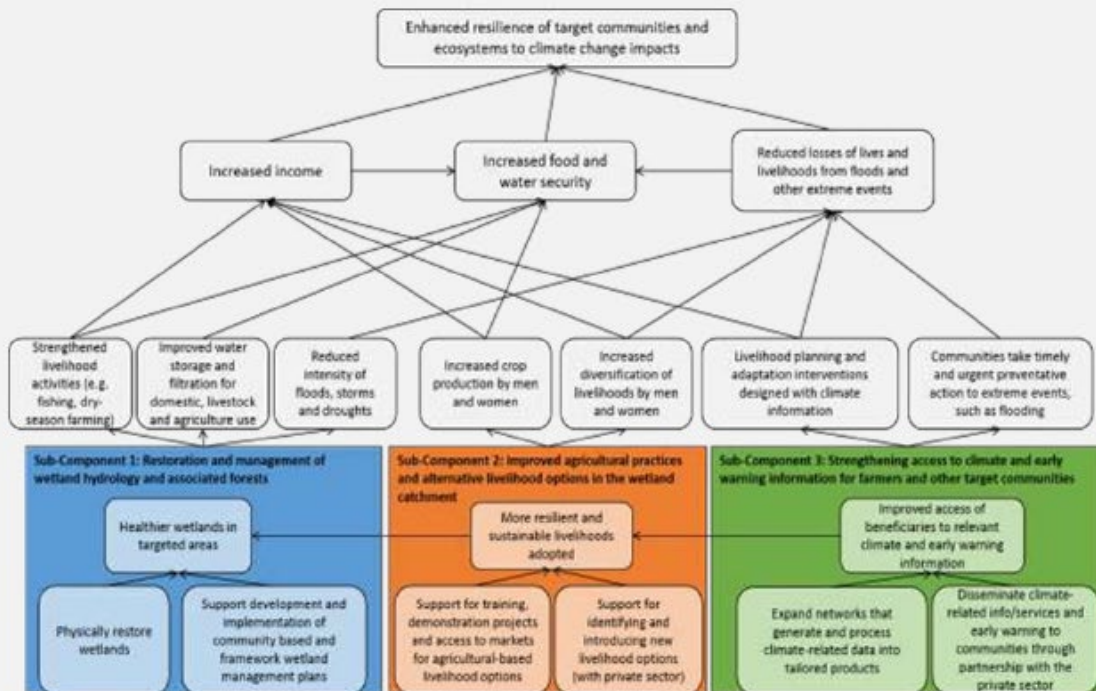
**BUDGET**

SUB-COMPONENT/ OUTPUTS	SOURCE (US\$) millions			TOTAL
	GCF	GoU	UNDP	
1: Restoration of Wetlands and associated catchments	10.619	12.5	0.1	23.219
2: Improved agricultural practices and alternative livelihood options	8.674	5	1	14.674
3: Strengthening access to climate and early warning information	3.732	0.622	0.9	5.254
Project Management	1.115			1.115
<b>TOTAL</b>	<b>24.140</b>	<b>18.122</b>	<b>2</b>	<b>44.262</b>





# THEORY OF CHANGE





Vanuatu (FP035)

# FP 035: CISRDP

Vanuatu | SPREP



Iririki Island , Shefa Province viewed from Vanuatu MET Observation Station

### Project description

A 4-year CIS project focused on providing people and organisations with timely tailored climate information and tools that they can use to reduce the impacts of climate change on lives, livelihoods, natural resources, and property.

### Project Objectives

- Catalyze and mainstream the application of CIS information in a sustainable manner
- Aid adaptation to climate change through adoption of the delivered CIS in vulnerable sectors and communities
- Support climate smart decision-making that facilitates resilient development
- Build capacity for sectors and households to harness and manage data delivered through community centers

### Main results from evaluation:

- 80% of households in areas at risk of impacts due to climate variability accessed social services
- Climate-proof infrastructures and crops are needed in vulnerable provinces

### Plans for data collection

- Joint missions with development partners
- Internal Formative Assessment (bi-annual)
- External Midterm Evaluation in 2020
- External Final Evaluation in 2022

### Timeline

Project approval:

October 2017

Implementation period:

January 2018 – July 2018

Project end:

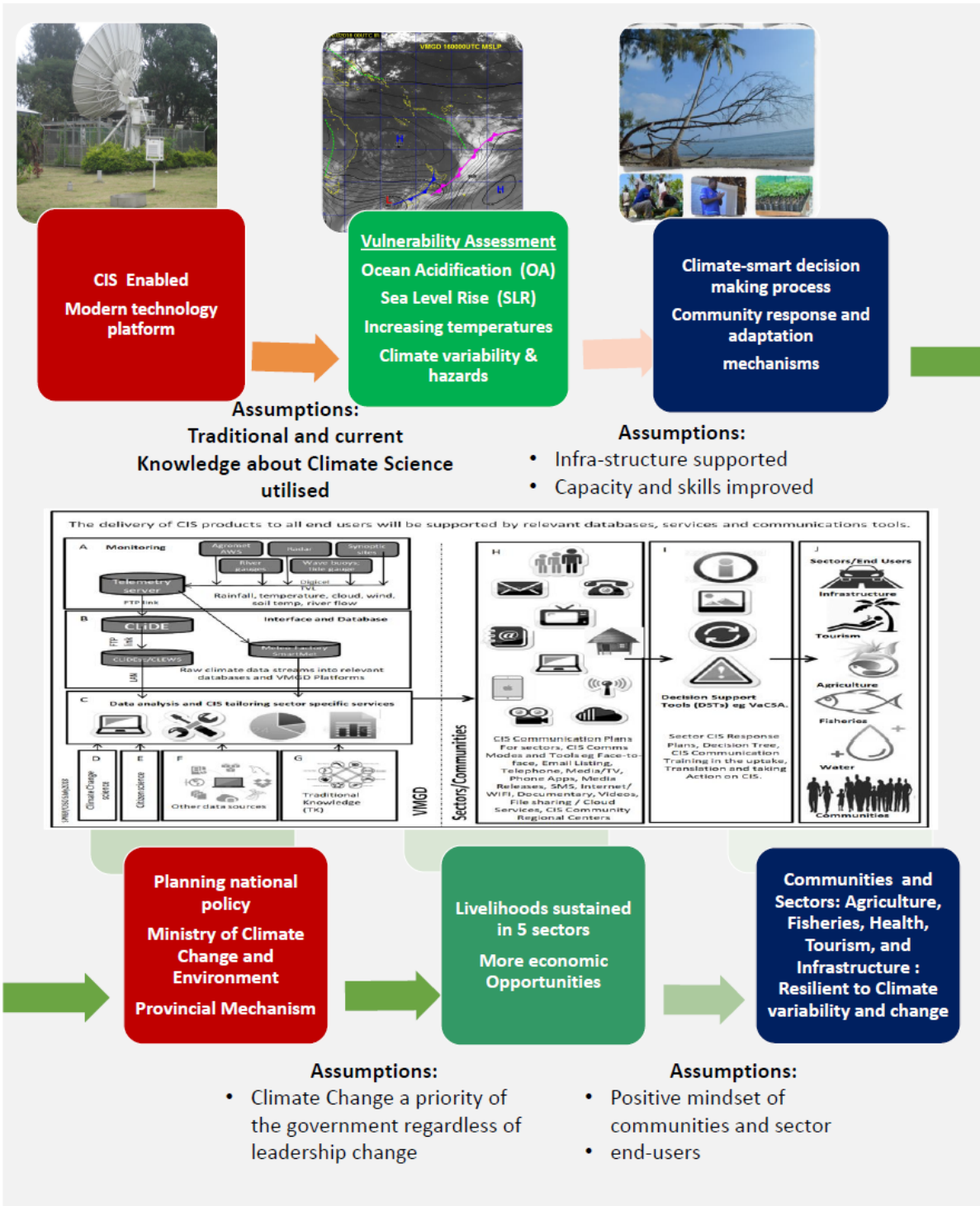
April 2022

Name, Position, Affiliation, Contact Information



# THEORY OF CHANGE

(Managing climate variability-sustaining livelihoods-saving communities)



Vitolina (PISO) and Rebecca (M&E Adviser), SPREP, [vitolinas@sprep.org](mailto:vitolinas@sprep.org); [rebecca@sprep.org](mailto:rebecca@sprep.org)





Eastern Caribbean (FP061)

FB 061: Integrated Physical Adaptation and Community Resilience through Enhancing Direct Access Pilot in the Public, Private and Civil Society Sectors of Antigua and Barbuda, Dominica and Grenada. Antigua and Barbuda | Department of Environment



Project description: To Build resilience in the public, private and CSO sectors through devolved decision-making and increase climate financing availability

Project Objectives

- 1. Country ownership of climate adaptation actions through devolved decision-making in the Government, private and NGO sectors
2. Operational enhanced direct access modalities in the Eastern Caribbean pilot countries
3. Increased resilience to climate variability and enhanced livelihoods of vulnerable people and communities



Main results from evaluation:

- To what extent communities' resilience improved as a result of on-granting?
To what extent home owners' and businesses' resilience improved as a result of the revolving loan programme?

Plans for data collection

- Baseline data will be collected in 2018 and towards end 2019 with expected start of the microfinancing
Ongoing collection during lifetime of project on quarterly and annual basis
Data collection at the Mid-term review and End of Project Evaluation

Timeline

Project approval: 1 March 2018

Implementation period: 2018-2020

Project end: November 2022



Martin Barriteau: Project Coordinator, Department of Environment: martin.barriteau.ab.gov.ag



# Improved Community Resilience to Climate Change through Microfinancing of grants and loans



revolving loan and on-granting schemes established

Assumptions:

- People know about schemes
- Effective targeting mechanism implemented
- Community and home owners are provided with timely disbursements
- Reliable repayment provides sufficient incentive for new borrowers
- Mechanism is structured, managed and resourced in an efficient way

Assumptions:

- Target group considers climate change and weather events to be sufficiently important to take loans
- Contractors and technicians trained in climate relevant technologies
- Materials for structural improvement are readily available
- Relationships built with relevant stakeholders to facilitate project implementation and uptake



Communities and home owners are fully utilizing loans and grants



Increased in climate resilience for communities particularly vulnerable and marginalized groups

Assumptions:

- Revolving fund will improve the overall resilience of targeted communities.
- People's confidence and coping skills improved and likelihood of bouncing back after a disaster.

Assumptions:

- Intervention is able to achieve transformative change that delivers longer term outcomes once project funding is over.
- Impacts the lives of wider communities especially post disaster recovery.
- Added income through use of green energy, climate smart enterprises and lower insurance premiums



Implement/Scale up of climate-relevant technologies and infrastructure at the community level/watershed areas



Improved Livelihoods Improved climate resilience and socially inclusive growth

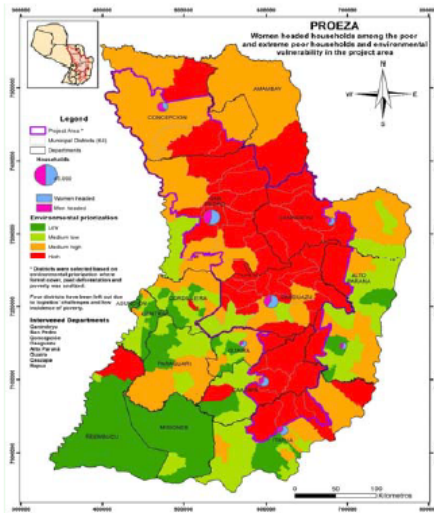




Paraguay (FP062)

# FP062: PROEZA PROJECT

Paraguay | FAO



**Description:** 17,100 poor and extreme poor households will get access to technical support and economic incentives to establish climate-smart agroforestry production systems and/or multifunctional “Close-to-Nature” planted forests on their land (average area of 0.8 ha per family), totaling approximately 13,940 ha.

**Objectives**

- Improve the resilience of poor and extreme poor HH vulnerable to the impacts of CC
- Increase the forest cover in sensitive areas of Paraguay

**Main results from evaluation:**

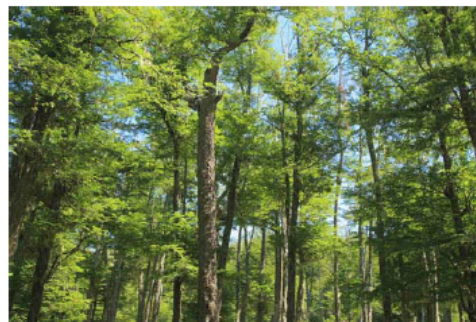
- Increase forest cover area, reduce the proportion of money and time spend on firewood collection, increase options of self consumption products, increase access to additional economic activities (agricultural products and timber)

**Plans for data collection**

Data collection: Last quarter 2018 (baseline)  
Midterm data collection 2020  
Endline 2023

**Timeline**

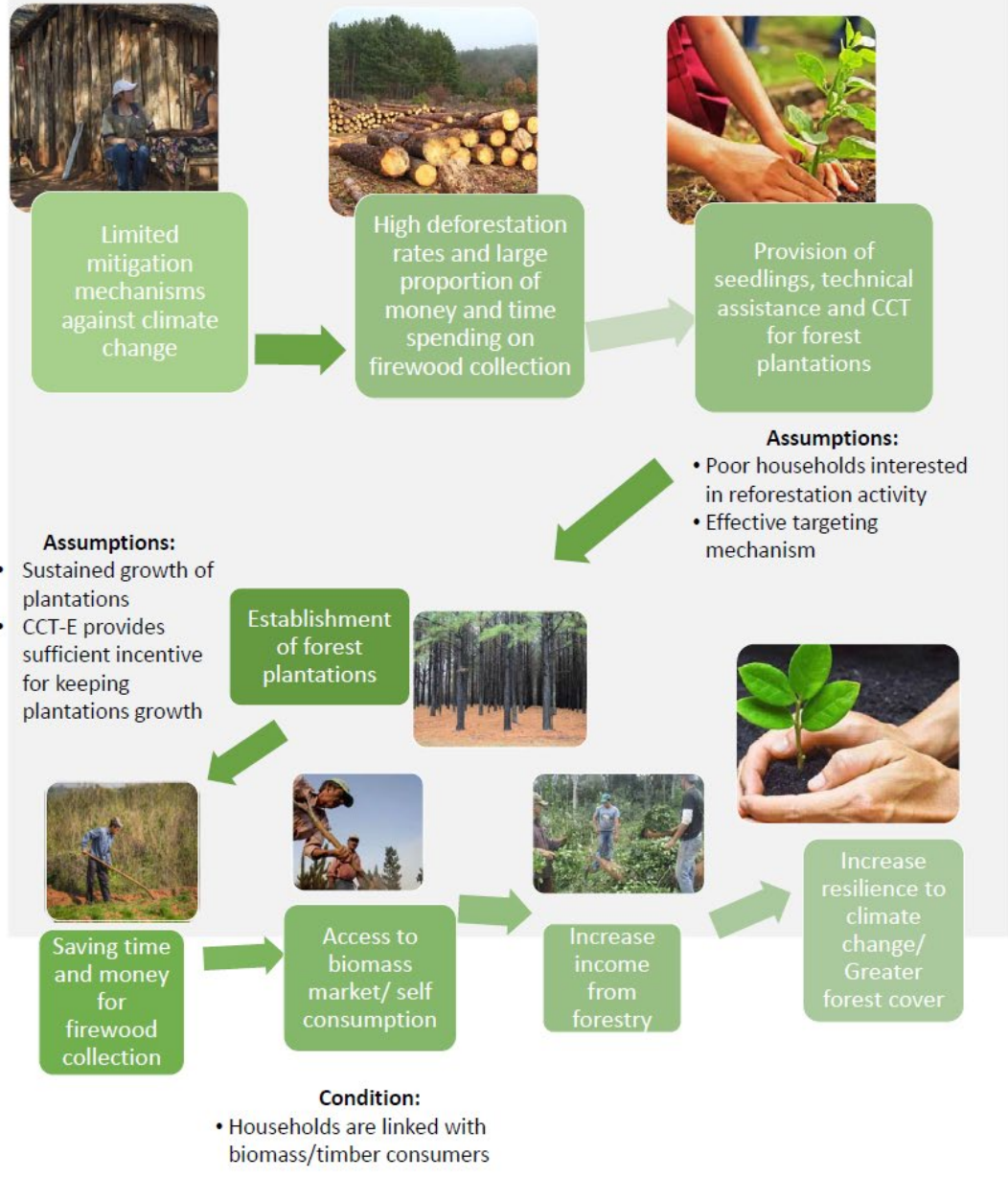
Project approval: February 2018  
Implementation period: last quarter 2018  
Project end: last quarter 2023



Jorge González, Economist, Secretary of Planning (NDA), [jgonzalez@stp.gov.py](mailto:jgonzalez@stp.gov.py)



# THEORY OF CHANGE



• Jorge González, Economist, Secretary of Planning (NDA), jgonzalez@stp.gov.py



GREEN CLIMATE FUND

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TRUSTED EVIDENCE. INFORMED POLICIES. HIGH IMPACT.

Georgia (FP068)

# PROJECT: Scaling-up Multi-Hazard Early Warning System and the Use of Climate Information in Georgia

GEORGIA | UNDP



**Establishment of countrywide fully-integrated impact based Multi Hazard Early Warning System (MHEWS) in Georgia**

### Objectives

- Introduction of standardized hazard, risk and vulnerability assessment and mapping methods and technologies;
- Development of long-term institutional and community capacities in CRR, CCA and MHEWS
- Stimulation climate risk-informed and resilient development

### Main results from evaluation:

*I Are the institutional, legal and policy frameworks and technical monitoring capacities in place for implementation of the MHEWS?*

*II Has resilience and livelihoods of the most vulnerable people, communities and infrastructure increased?*

- Climate informed multi hazard risk reduction and management planning in place
- 100% households, business and public sector services have access to EWS services and relevant information
- MHEWS established in 11 major river basins and enabling conditions ensured for its effective operation; CBEWS established in 100 high-risk settlements

### Plans for data collection

*Census ; Project Reports; Government Data;*

### Timeline

Project Approval: March 1, 2018

Implementation Period: 7 years

Project End: August 31, 2025

### Project Partners

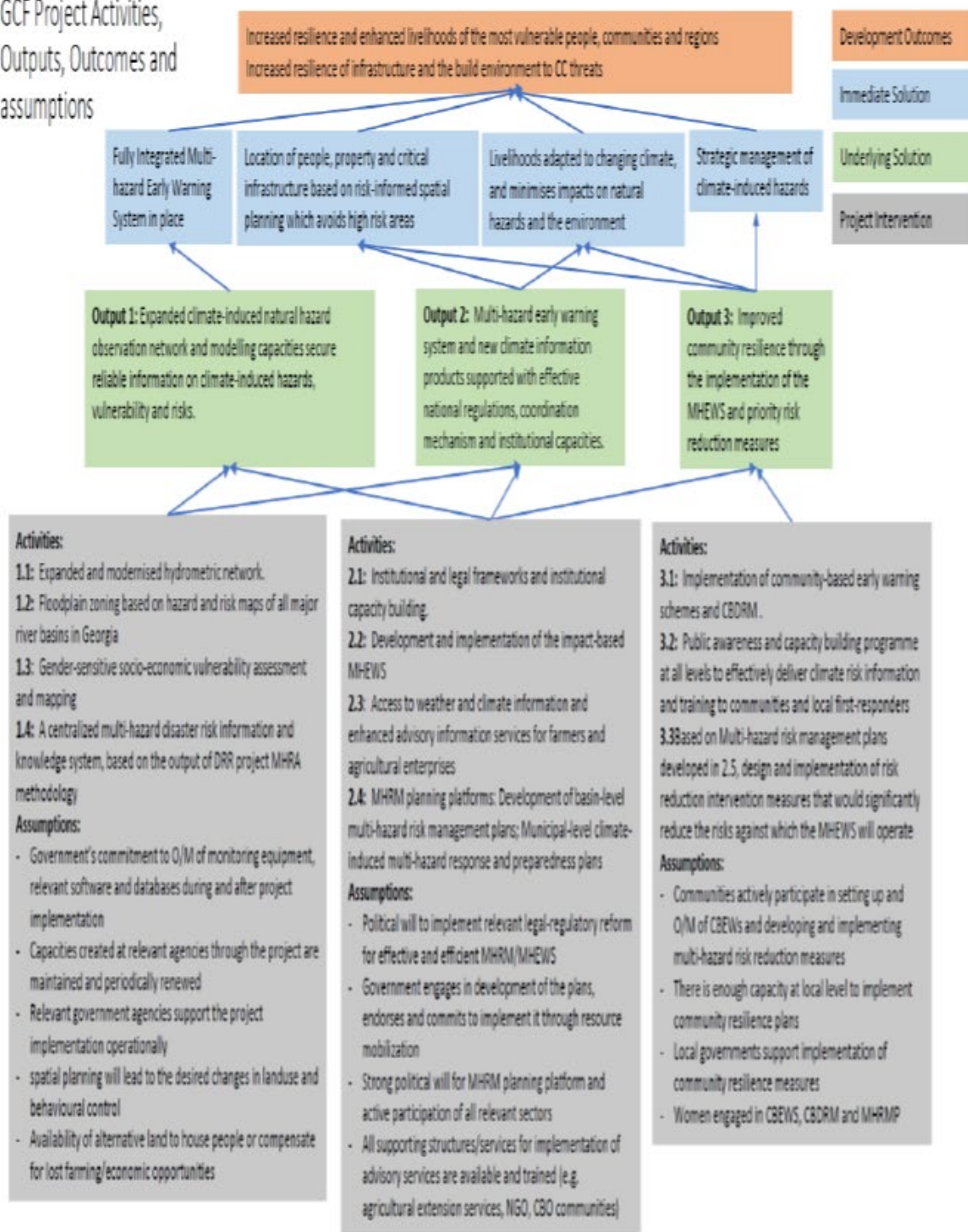


Nino Antadze, Energy and Environment Team Leader, UNDP Georgia, [nino.antadze@undp.org](mailto:nino.antadze@undp.org)



# THEORY OF CHANGE: Scaling-up Multi-Hazard Early Warning System and the Use of Climate Information in Georgia

GCF Project Activities, Outputs, Outcomes and assumptions



Nino Antadze, Energy and Environment Team Leader, UNDP Georgia,  
nino.antadze@undp.org



Independent Evaluation Unit  
Green Climate Fund  
175, Art center-daero, Yeonsu-gu,  
Incheon 22004, Republic of Korea  
Tel. (+82) 032-458-6230  
ieu@gcfund.org  
<https://ieu.greenclimate.fund>

Center for Evaluation and Development (C4ED)  
O73  
68161 Mannheim, Germany  
Tel. (+49) 95040732  
info@c4ed.org  
[www.c4ed.org](http://www.c4ed.org)



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