

Mid-Term Evaluation of the Project 'Reducing Climate Vulnerability and Flood Risk in Coastal Urban and Semi-Urban Areas in cities in Latin America' (Chile, Ecuador)

Mid-Term Evaluation Report



Prepared for:



DEVELOPMENT BANK
OF LATIN AMERICA
AND THE CARIBBEAN

DEUMAN - Mid-Term Evaluation of the CAF Regional Project

'Reducing Climate Vulnerability and Flood Risk in Coastal Urban and Semi-Urban Areas in cities in Latin America'

Consultancy:

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(i) Basic information of the MTE Report

Title of the project:

'Reducing Climate Vulnerability and Flood Risk in Coastal Urban and Semi-Urban Areas in cities in Latin America' (Chile, Ecuador)

Deadline and date of the MTE report:

Start: May 15, 2023 - End:

September 30, 2023

Total: 135 calendar days.

Region and countries included in the Project:

LAC Region - Chile and Ecuador

Adaptation Fund operational focal area/strategic program:

Disaster risk reduction and early warning systems

Implementing Agency/Implementing Partner and other Project partners

Implementing Entity: Development Bank of Latin America - CAF

Executing Agency: UNDP- CO Ecuador

Designated National Authority in Ecuador: Subsecretariat of Climate Change of MAATE.

Designated National Authority in Chile: Subsecretariat of Environment of MMA.

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Thanks:

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We extend our recognition for the positive response and determined support of the Project team in Ecuador and Chile, for allowing us to obtain direct and specific information about their work; and also, to the government officials and community leaders who agreed to provide their time and valuable opinions by interviewing them in the countries and areas of intervention; The report includes the complete list of their names and functions.

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(iii) Acronyms and Abbreviations

AF	Adaptation Fund
AGCID	Chilean Agency for International Development Cooperation
CAF	Development Bank of Latin America and the Caribbean
DMC	Meteorological Directorate of Chile
DOH	Directorate of Hydraulic Works (Chile)
DRR	Disaster Risk Reduction
ENCC	National Climate Change Strategy
GAD-ME	Decentralized Autonomous Government - Municipality of Esmeraldas
GAD-PE	Decentralized Autonomous Government - Province of Esmeraldas
GORE Antofagasta	Regional Government of Antofagasta
ITCZ	Intertropical Convergence Zone
IPCC	Intergovernmental Panel on Climate Change
INAMHI	National Institute of Meteorology and Hydrology (Ecuador)
LAC	Latin America and the Caribbean
MAATE	Ministry of the Environment, Water and Ecological Transition (Ecuador)
MMA	Ministry of Environment (Chile)
MOP	Ministry of Public Works (Chile)
MTE	Mid-Term Evaluation
ONEMI	National Emergency Office of the Ministry of the Interior - Chile (SENAPRED, from 2023)
PU	Project Unit
PUCE	Pontifical Catholic University of Ecuador
SENAPRED	National Disaster Prevention and Response Service - Chile
SEREMI	Regional Ministerial Secretariat
SETECI	Technical Secretariat of International Cooperation - Ecuador
SGR	Risk Management Secretariat
ToR	Terms of Reference
UNDP	United Nations Development Program

Executive Summary

A. Project information box

Title of the project	'Reducing climate vulnerability and flood risk in coastal urban and semi urban areas in cities in Latin America (Chile, Ecuador)'		
AF Project ID	LAC/RIE/DRR/2015/1	PIF approval date:	May 23, 2017
CAF Project ID (PIMS#)	RT_ADP-20-001	AFB Approval Date	Jul 16, 2018
UNDP Project ID (PIMS#)	00121247 (DIM)	Signing Date of the IE-AFB Agreement	Dec 11, 2018
Sector:	Disaster risk reduction and early warning	Project Manager Hire Date:	Jul 04, 2019
Countries:	Ecuador Chile	Inception Workshop Date	Jan 20, 2020
Region:	LAC	MTE End Date:	Sep 30, 2023
Trust Fund	AF/CAF	Planned closing date, considering requested extension ¹ :	Jan 22, 2026
Regional Implementing Entity Executing Entity:	Development Bank of Latin America and the Caribbean – CAF UNDP CO Ecuador		
Partner entities in the implementation	Chile: Ministry of the Environment (MMA) Ecuador: Ministry of the Environment, Water and Ecological Transition (MAATE)		
Project Financing	<i>Endorsement by AFB (USD)</i>	<i>To the Mid-Term Evaluation (USD)</i>	
(1) AF/CAF Financing	12,880,000.00	12,880,000.00	
(2) Co-financing	Without Cofinancing	Without Cofinancing	
TOTAL COST OF THE PROJECT (1+5)	12,880,000.00	12,880,000.00	

¹<https://www.adaptation-fund.org/document/request-for-a-no-cost-extension-of-the-project-completion-date-chile-ecuador-caf/>

B. Project description

The regional Project 'Reducing climate vulnerability and flood risk in coastal urban and semi urban areas in cities in Latin America (Chile, Ecuador)' (hereinafter 'the Project') originates from the interest of international cooperation for development, in mitigating the vulnerability of the Latin American region and the Caribbean (LAC) facing flooding and landslide phenomena in coastal areas, aggravated by the incidence of climate change.

The Bank of Latin America and the Caribbean (CAF), with financing from the Adaptation Fund (AF), agreed with the governments of Chile and Ecuador to carry out a Demonstration Project of actions and learning for the reducing risks of floods and landslides in coastal cities, and strengthening adaptation capacities to climate change in similar areas of the LAC Region. To this end, under the CAF initiative, the governments of Chile and Ecuador decided to develop actions with these approaches in three cities in their territories, with less than 500,000 inhabitants: Antofagasta and Taltal in Chile; and Esmeraldas in Ecuador. The implementation of Project actions is in charge of UNDP (CO Ecuador), as regional executing agency.

The Project was designed to facilitate the interaction between government institutions, specialists and the interested population, in collective and community learning and in the best knowledge for resilience and adaptation to climate change in the face of associated risks and disasters, in the three selected cities. Additionally, electronic platforms and communities of practice were planned to facilitate the exchange of knowledge, participation and interest in adaptation based on risk management in the coastal cities of the Region.

The Project implementation strategy was established based on the following elements:

- i. Develop expertise on how to build better to resist climate-related hazards in specific areas of Chile and Ecuador. This includes: (i) updating the designs of the Antofagasta Stormwater Plan and the protection works of the Bonilla stream, and the construction works of Esmeraldas to stabilize the Gatazo hill; and (ii) the construction of public works in Quebrada Bonilla and Cerro Gatazo. These actions will facilitate learning about the incorporation of climate variability in protection works. In addition, a green infrastructure plan for Esmeraldas will be prepared in Ecuador, and a first element will be implemented on Gatazo Hill.
- ii. Improve disaster preparedness by (i) using weather radar in Esmeraldas; a storm detection in Antofagasta; and a greater number of weather stations to anticipate the risk of situations and gain time to alert the local population; and (ii) strengthen the participation of local groups, including installing sirens to warn of danger, publicizing evacuation maps and establishing emergency drills to promote rapid and effective response to floods and mudflows.
- iii. Prepare a regional online training course on risk-based adaptation for municipal officials in the coastal zone Cities. This will contribute to strengthening local capacities and empower municipal officials to mainstream DRR at the local level.
- iv. Raise awareness and empower local communities through public communication and education; strategies, and development of the storytellers initiative to strengthen cultural memory for climate-related DRR.
- v. Share lessons by systematically documenting, exchanging and disseminating

experiences and learning within each country, between both countries and with other coastal cities in LAC.

The Project design to implement the strategy contains the following Objective, Components and Results:

Component 1:

Priority actions to increase resilience in the three cities.

Result 1. *Improved plans and green infrastructure reduce vulnerability to flooding, landslides and mudflows in two coastal cities.*

Result 2. *Reduced vulnerability to flooding, landslides and mudflows in two coastal cities.*

Result 3. *Improved weather monitoring and means to alert the local population.*

Result 4. *Improved means to respond to floods, landslides and mudflows*

Component 2:

Strengthen the capacities of local government officials and communities, as well as the connections between communities and local and national government.

Result 5. *Local governments with greater capacity to design and implement adaptation measures.*

Result 6. *Local population and government staff with increased awareness of climate-related risks (floods, landslides, mudflows).*

Component 3.

Nurture Project communities of practice and document and disseminate lessons.

The backbone of the Regional Project is the communities of practice that allow the development of collective learning on specific topics. Five communities of practice will be developed.

Result 7. *Lessons and best practices to reduce vulnerability to flooding, landslides.*

The planned execution period for the Project is five years, it began in January 2020, and should end in January 2025. The Mid-Term Evaluation (MTE) contained in this document refers to the period from the inception of the Project. until June 2023.

The planned investment amount is USD 12,880,000 financed by the Adaptation Fund, and it is expected to catalyze an additional investment of the order of USD 84.5 million to build protection infrastructure in the cities of Antofagasta, Taltal and Tocopilla, through guidelines for incorporating the climate variable in its design and construction.

The partners in the execution are various public institutions at the national and subnational level (See organizational diagram in section 2.4 of the body of this report). The beneficiaries of the Project, according to the Adaptation Fund, are the governments of Chile and Ecuador, through their respective ministries of the environment. The Project foresees a direct impact for the benefit of around 557 thousand people² in the three intervention cities that are highly vulnerable to climate impacts.

² Programme Proposal, page 50, section D.

C. Summary table of MTE qualifications and achievements

Parameter	Assessment	Achievement Description
Project Strategy	N/A	
Outcome achievement progress	<p>Project Objective MS</p> <p><i>To reduce vulnerability to climate-related floods, mudflows and landslides in three coastal cities by mainstreaming a risk-based approach to adaptation, building collaboration and networking, and developing a culture of adaptation</i></p>	<p>The Project is on a moderately satisfactory course, despite having tight deadlines. The focus is maintained on meeting the established goals. The next execution of works is expected, it is important to highlight that the administrative procedures are ongoing and advancing.</p> <p>The goal has been met for the long-term objective referred to the intervention area in Esmeraldas; In the intervened area of Antofagasta, it is expected to reach the goal in the remainder of the execution.</p> <p>The Project has implemented the Early Warning System on Luis Vargas Torres Island, and a Hydrometeorological Viewer at the level of the Esmeraldas River basin, anchored to the national network of INAMHI hydrometeorological stations. In Chile, storm detection systems have been installed throughout the north of the country, therefore covering the towns of Antofagasta and Taltal.</p>
	<p>Outcome 1 HS</p> <p><i>Improved plans and green infrastructure reduce vulnerability to flooding, landslides and mudflows in two coastal cities</i></p>	<p>The goals for the medium-term period have been met in both work locations. The progress allows us to foresee that the goal for the end of the Project will be met:</p> <ul style="list-style-type: none"> The Green Infrastructure Plan (PIV) was officially delivered on October 13, 2021; It is complementary to the Land Use and Management Plan (PUGS) and the Territorial Planning Plan (PDOT) of Esmeraldas. It constitutes an urban planning tool to prepare the city against the impacts of climate risks; incorporates provisions for adaptation, with a gender focus at the cantonal level. It has a GADM Municipal Ordinance of March 4, 2022. The Antofagasta Rainwater Evacuation and Drainage Master Plan was updated and communicated since June 2022. Topics such as urban development, climatic events that have occurred and climate projections have been incorporated.
	<p>Outcome 2 U</p> <p><i>Reduced vulnerability to flooding, landslides and mudflows in two coastal cities.</i></p>	<p>It has not been possible to build the planned physical asset in any of the intervention areas, which is why it is not possible to count the people protected by this infrastructure. Regarding indicator 2.2, the Programme Proposal does not include a statement of a mid-term goal and it is estimated that it has not been achieved given its volume and execution time.</p>
	<p>Outcome 3 MS</p> <p><i>Improved weather monitoring and means to alert local population</i></p>	<p>The end goal of the Project would be met. However, the gender perspective in development is not mentioned for this part of the result.</p> <p>In 2022, a storm detection system visualization platform for the north of the country was delivered – in conjunction with the Chilean Meteorological Directorate. To improve the monitoring of the Project cities, sensors were installed to detect storms and lightning in each of them.</p>

	<p>Outcome 4 S <i>Enhanced media to respond to floods, landslides and mudflows</i></p>	<p>The Programme Proposal does not prescribe mid-term goals for these outcomes.</p> <p>The progress in Esmeraldas is recognized, however, it cannot be rated equally in the case of Antofagasta, since SAT has not been installed. However, the evaluation considers that the final goals in both results will be achieved at the current rate of progress. Emphasis should be placed, from now on, on the focus on gender, culture and special needs of the population, to complete the scope of the system.</p>
	<p>Outcome 5 S <i>Local governments with greater capacity to design and implement adaptation measures.</i></p>	<p>The Programme Proposal does not specify mid-term goals; But the progress to date of the total in Ecuador and the partial in Chile allows us to predict that the final goal will be reached.</p> <p>A new cycle or edition of the diploma must be organized, anticipating and considering the high turnover of responsible technical personnel in local governments.</p>
	<p>Outcome 6 S <i>Local population and government staff with greater awareness of climate-related risks (floods, landslides of earth, mud flows)</i></p>	<p>The Programme Proposal does not set out mid-term goals; But the reported figures exceed what was expected, so it is advisable to evaluate and monitor these scopes, in order to establish the impact over time of these activities.</p>
	<p>Outcome 7 S <i>Lessons and best practices to reduce vulnerability to climate-related flooding, landslides and mudflows in coastal cities have been shared in the region</i></p>	<p>To date, 109 people in Chile and 31 in Ecuador have received information through workshops and talks on reducing vulnerability to climate events.</p> <p>The visitors per month registered on the Project website amount to 21,733, which exceeds the established final goal by more than 21,500.</p>
Project execution and adaptive management	MS	<p>The Project has been carried out in a moderately satisfactory manner. There are delays in the development of some activities, especially those related to the implementation of protection infrastructure and the implementation of monitoring equipment. Likewise, it is necessary to improve administrative procedures for disbursements between CAF and UNDP</p>
Sustainability	S	<p>Various risks have been identified for the sustainability of the Project, those that could have the most impacts being socioeconomic. In that sense, the situation of insecurity experienced in Esmeraldas stands out.</p> <p>It also highlights the change of public officials and the political tension between them, which slows down the continuous dynamic of the Project.</p>

D. Concise summary of findings

Project design and formulation

- The Project is being executed in accordance with the Programme Proposal and the objectives set forth therein, approved by the Adaptation Fund, considering the necessary adjustments within the AF policies.
- The Project is considered relevant due to common problems in the participating countries, such as landslides, that affect the region in a similar way and, likewise, the objectives are aligned with local needs. In Chile, the Project contributes to the improvement of infrastructure in coastal cities, it is presented as a pilot and study to replicate climatic and biological methodologies at the institutional level. In Ecuador, the Project is aligned with national public policy instruments such as the ENCC and the Public Policy for Adaptation to Climate Change, since it has been part of the structuring process of the National Adaptation Plan (PLANACC), which was made official by the MAATE in February 2023.

Implementation and adaptive management

- Moderately Satisfactory progress has been made on most Project objectives.
- Proper management of deadlines is crucial to the success of the Project, and the importance of adapting to contextual problems in different countries without changing the original Project design is recognized.
- The efforts on the part of CAF and UNDP to expedite coordination with AF on changes to the Project and agreements for execution are recognized.
- Despite challenges such as government staff turnover and bureaucratic tensions, effective links have been established with various actors.
- The Project's external communications have been effective. Digital media have managed to give visibility to the Project.

Planning and inter-institutional coordination and with actors

- The Project serves as an example of governance and coordination between state entities, and these approaches could be replicated in other contexts.
- The successful collaboration with local and state institutions stands out, such as SENAPRED and the local SEREMI of the Environment in Chile, and the Prefecture, the Municipality of Esmeraldas, the SGR Esmeraldas and the MAATE Esmeraldas in Ecuador.

Outcome achievement progress

- The Project is advancing effectively, considering contextual and regulatory factors and availability of resources.
- Emphasis is placed on strengthening the capacities of officials and communities, through the Diploma in Climate Change and Disaster Risk Reduction and work with Storytellers, respectively.
- However, delays have been identified in the implementation of early warning systems in Antofagasta and the construction of protection infrastructure in Esmeraldas due to specific challenges, which favors the incidence of the risks identified in the document.

Gender and Intercultural Approach

- Since its formulation, the Project has considered the inclusion of gender, cultural and age perspectives.
- The participation of women in workshops and activities stands out, as well as the presence of people from different generations who contribute their intercultural perspectives.

Social and environmental safeguards

- Risks have been identified that respond to the reality of the Project, including changes in public officials, the prioritization of other activities in governments, outdated studies and other factors, presented in the PPR.
- Risk mitigation measures have been previously outlined, but new risks have been identified that require attention.

Financing and Co-financing

- The financing of the Project comes from AF, which in turn is administered by CAF for direct disbursements in field activities.
- During the interviews, some actors have confidentially mentioned that there are delays in financial payments, which has affected the execution of activities.

Monitoring and evaluation

- According to what was mentioned in the interviews, the executing team has an internal platform to record progress information, indicators, risk management and gender equity.
- Annual reports (PPR) are prepared to present progress on results, financial results, risks and lessons learned, in addition to periodic review meetings with representatives of CAF, UNDP and government institutions, in accordance with what is established in the Project document.

Sustainability of achievements, replicability and scaling

- Financial risks: Lack of allocation of national resources for climate change adaptation projects in coastal cities in Ecuador.
- Socioeconomic risks: Settlement of foreign populations in areas of possible flooding in Antofagasta and social insecurity in Esmeraldas.
- Institutional and governance risks: Postponement of risk management and adaptation to climate change after completion of the Project.
- Environmental risks: Illegal land seizures in Antofagasta, more frequent climate events such as El Niño and the appearance of diseases.
- Need to involve national, regional and local governments in maintaining and investing in Project activities and addressing identified risks.

E. Summary table of recommendations

Rec. #	Recommendations	Responsible Entities
A.	About the objectives, design and implementation strategy	
A.1	Evaluate the continuity of the Project in Esmeraldas due to regional insecurity, prioritizing the protection of the population and the fulfillment of objectives related to climate change. In Chile, it is recommended to maintain intervention cities.	CAF
A.2	Adjust the deadlines for meeting objectives considering delays due to social obstacles and administrative barriers, and incorporating the dynamics of obtaining permits in planning.	CAF
A.3	Restructure the budget in accordance with pending activities, reviewing financial controls and the disbursement procedure to avoid delays.	CAF
A.4	Carry out an analysis of the global conditions under which the Project was approved and the current ones. This will help to propose deadlines and budgets adjusted to the current reality.	CAF
B.	About adaptive management	
B.1	Review the risks identified during execution and compare them with the planned risks, to evaluate whether existing mitigation measures are adequate for the new risks.	CAF/UNDP
B.2	Transfer responsibilities to nearby government institutions, at the end of the Project, to ensure financial sustainability and governance.	CAF/UNDP
C.	On capacity building, knowledge management and communication	
C.1	Maintain focus on training and continuous learning, exploring initiatives for youth and the preservation of historical memory.	CAF/UNDP
C.2	Identify additional needs throughout the Project and adjust approach, as necessary, demonstrating flexibility in the face of challenges and changes.	CAF/UNDP
C.3	Improve formal communications about Project progress, providing details of the activities carried out to achieve the objectives. Indicators, and providing information on the budget executed for each activity.	CAF
D.	About the gender and intercultural approach	
D.1	Encourage collaboration with civil society, especially women and people from vulnerable generations, to promote awareness and education on climate issues.	CAF/UNDP

D.2	Prioritize participatory design and transparency in technical direction, maintaining flexibility in time management to take advantage of external financing opportunities.	CAF
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1. Introduction to MTE

1.1 Purpose of the MTE and objectives

The central purpose of the MTE is '...evaluate progress in achieving the objectives and results of the Project, based on the Complete Proposal approved by the Adaptation Fund; including the identification of early indicators of success or failure of the Project, with the purpose of identifying the necessary modifications to guide the Project towards the achievement of all the originally planned results, during the remaining time until the end of the Project.

The MTE has consequently proceeded to review the Project strategy and the present risks for the sustainability of its actions and the achievement of the expected future results in the approved Complete Proposal and in the complementary instruments, as well as the matrix of the Outcome achievement progress, and implementation follow-up documentation. A fundamental purpose has been to identify the changes that have been incorporated as adaptive management needs to achieve the desired results.

The MTE has also evaluated the general functioning of the Project based on the reference elements established at the beginning, and has reviewed the implementation strategy and risks as factors of change, which play a fundamental role in supporting delivery. of counts. In short, efforts have been made to ensure that the objectives of the MTE contribute to:

- Strengthen Project supervision and management functions.
- Guarantee accountability for the achievement of the Project and UNDP/CAF/AF objectives and promote responsibility in the use of resources.
- Improve organizational learning, documenting, providing feedback and disseminating lessons learned for actions in the LAC Region, and facilitating informed decision-making by national and subnational governments.

1.2 Approach, methodology, scope and limitations of the MTE

The evaluation has been carried out considering four main blocks:

- Evaluation of the Project Design and results framework, in terms of relevance to the development context in the intervention areas.
- Progress towards the results through the activities recorded and reported during the execution carried out up to the moment of the evaluation, in terms of the effectiveness of the process.
- Evaluation of Project execution and Adaptive Management to date, in terms of demonstrated efficiency, analyzing its execution trajectory, adaptive management and alignment to the process guidelines and standards originally established in the approved Full Proposal Programme Proposal: and,

- Evaluation of the sustainability of the Project's actions in the medium and long term, in political and institutional, financial, socio-economic, and geo-physical-environmental terms.

The work methodology has been developed in successive and repeated approaches: the first, to expand the knowledge of the consulting team based on the details and scope of the Project, regarding the political, socioeconomic and environmental contexts of its intervention; the second, through semi-structured interviews, to interact and explore conclusions and points of view regarding the efficiency and effectiveness in the execution of the Project, from the perspective of the main actors and stakeholders; and the third, to establish and communicate the independent synthesis vision of the consulting team on the execution of the Project, with respect to the evaluative criteria, in order to generate the discussion of critical conclusions and recommendations in this regard for the continuation of the Project.

In the process, the following sets of documents reached by the Project Unit were examined:

- Document of the complete Project proposal, approved by the AF, consultation and clarification documents, and proof of the final approval decision.
- CAF Complete Proposal Document, supporting documents and annexes.
- Project Risk Matrix
- Periodic reports, including annual Project Performance Reports (PPR)
- Budget reviews and details of financing and execution of expenses.
- Procurement plans and annual operating plans
- Environmental and social reports
- National strategic and legal documents.

In a complementary manner and cross-review of findings, semi-structured interviews were carried out, both in person and virtual, if necessary, with the main actors and interested parties of the Project, both from Chile and Ecuador, through ad-hoc questionnaire-guides, and including visits to activity implementation sites in Chile (Antofagasta and Taltal). For reasons of force majeure and the safety of local staff and the evaluation team, it was not possible to conduct in-person interviews in the intervention areas in the Province of Esmeraldas³.

The evaluation team conducted interviews with a total of 36 people, including Project officials and government entities, partners, community leaders and stakeholders, 21 in Chile, mostly in person; and 15, mostly virtual, with 55% participation of women in the total. (See details in Annex H of this document).

³ See Annex J. Aid Memoir Rethinking of the Field Mission in Ecuador for the MTE of the Project 'Reduction of Climate Vulnerability and Flood Risk in Urban and Semi-urban Coastal Areas'.

The main limitations in the execution of MTE have been caused by difficulties in accessing the intervention areas in Ecuador, due to conditions of personal risk given the social situation in Ecuador, and in the intervention area in particular⁴.

In other eventual cases – and as usually happens in our countries in the Region – political changes and the rotation of officials responsible for the sectors associated with the execution of the Project, usually cause delays, both in the execution of the Project and, consequently, in obtaining opinions during the evaluation process. The evaluation team has taken palliative measures to address this situation, and it is considered that it has not constituted a serious problem in this case.

1.3 Structure of the MTE report

The structure of this report is aligned with the indications received in the ToR of the contract, which in turn are prescribed in the respective AF and CAF guides for Project evaluations. It includes the basic information of the Project, this introduction, an Executive Summary, and then the analysis of the following aspects:

- Background, development context, and brief description of the Project, including a description of the current political, institutional, socioeconomic, and environmental situation of the intervention sites, compared to the original conditions that gave rise to the Project.
- Problems that the Project seeks to solve and barriers to their solution.
- Analysis of the Project strategy and design in terms of its objective, components and indicators, and expected results, as well as its geographical coverage and implementation.
- Project implementation and governance arrangements.
- Action evaluation findings: Outcome achievement progress; remaining barriers; adaptive management for implementation (budgetary and financial execution); involvement participation of actors and interested parties; monitoring and evaluation mechanisms; compliance with quality standards; communications; and knowledge management.
- Analysis from the gender perspective and involvement of women based on actors, interested parties and beneficiaries.
- Analysis of financial, socio-environmental and political-institutional sustainability.
- Conclusions and recommendations; and
- Corresponding annexes and ToR of the MTE

⁴ See Annex J. Aid Memoir Rethinking of the Field Mission in Ecuador for the MTE of the Project 'Reduction of Climate Vulnerability and Flood Risk in Urban and Semi-urban Coastal Areas'.

2. Project Description and regional and local context

2.1 Project development context.

The dangers and risks of disasters, as is already widely proven, are increasing with global warming induced by climate change. The incidence and high cost of negative impacts linked to climate, in the last 20 years alone, represents 90%⁵ of the disasters that have occurred in the world; causing damage and loss of populations and considerable assets.

In the region of Latin America and the Caribbean, these risks are more significant due to the high vulnerability of their territories, the population concentration in cities, and the cyclical incidence of the El Niño-Southern Oscillation (ENSO) phenomenon, which, aggravated by climate change, is increasing its appearances and negative effects. In South America, the western coast is especially vulnerable to changes in climate caused by ENSO, which alters the stability of the Humboldt Current from Chile to Ecuador, with effects on biodiversity and fisheries biomass, and on the population in cities. coastal areas that have developed in climatic environments attenuated by the cold current.

The phenomena associated with ENSO impact most strongly on the populated areas of the most vulnerable coasts of South America, due to the quality of their soils and physiography; and because, despite the risks, they have been occupied by a migrant population, displaced or without resources to access better locations. These populations have been poorly served by States in the past, and lack their own means to escape their vulnerable condition. On the other hand, public investment priorities tend to be directed preferably to areas and sectors with greater performance and contribution to economic production; and private investment has had no interest in ventures with low or no apparent economic profitability.

The effort necessary to address these risks and reduce their social and economic impact is complex and multiple; It requires political will to conclude international agreements, robust governance schemes from the local to the national level; efficient and low-cost creative technical solutions; education and training for populations and actors; and sustained and sustainable financing.

These conditions are essential to face climate risk and the necessary solutions in a comprehensive and integrated manner; and therefore, constitute the conceptual framework of a Project like the one proposed.

2.2 Problems that the Project aims to solve, threats, and barriers.

In summary, the problems that the Project aims to solve and the respective strategies to achieve it are:

- Reduce the exposure and vulnerability of coastal cities - where 42% of the region's population lives - to incremental impacts and climate-related disasters.
- Increase the adaptive capacity of the population to climatic impacts and subsequent geophysical phenomena, especially floods and mudslides.
- Create exchange platforms to share good practices and lessons learned in the

⁵ Programme Proposal, page 1, section 1.

resulting adaptive process.

To this end, the collaboration of Chile and Ecuador has been achieved, and the selection of intervention sites in their coastal areas, representative of the problem in the region in terms of population scale (less than 500,000 inhabitants), which are affected by irrigation. typical and recurrent climatic conditions in the region, and that face similar challenges in terms of adaptation needs and strengthening of government and social organization capacities. The selected locations are the cities of Antofagasta and Taltal in Chile; and the city of Esmeraldas in Ecuador.

2.3. Project description and strategy: objective, effects and expected results.

The Project strategy, according to the respective Complete Proposal Document, is based on the following elements and actions in the intervention cities:

- a. *Develop expertise on how to build better to resist climate-related hazards. This includes (i) the updating of the designs of the Antofagasta stormwater plan and the protection works of the Bonilla stream, and the construction works of Esmeraldas to stabilize the Gatazo hill, and (ii) the construction of the public works in Bonilla ravine and Gatazo hill. These actions will facilitate learning about the incorporation of variable climate in protection works. In addition, a green infrastructure plan will be prepared for Esmeraldas, and a first element will be implemented on Cerro Gatazo to complement the gray infrastructure.*
- b. *Improve disaster preparedness by: (i) using a weather radar in Esmeraldas, a storm detection system in Antofagasta, and a greater number of weather stations to anticipate risk situations and buy time to alert the local population, and (ii) strengthen the participation of local groups, including installing sirens to warn of danger, publicizing evacuation maps and establishing emergency drills to promote rapid and effective response to floods and mudflows.*
- c. *Prepare a regional online training course on risk-based adaptation for municipal officials in coastal cities. This will contribute to strengthening local capacities and empower municipal officials to mainstream DRR at the local level.*
- d. *Raise awareness and empower local communities through public communication and education strategies and develop a storytellers initiative to strengthen cultural memory for climate-related DRR.*

- e. *Share lessons by systematically documenting, exchanging and disseminating experiences and learning within each country, between both countries and with other coastal cities in LAC.*

To implement the strategic actions, the Project has been structured as follows:

Component 1: Priority actions to increase resilience in the three cities.

Component 1 will focus on priority actions to increase resilience in the three cities. Four outcomes will be generated by integrating DRR into local planning, building infrastructure that incorporates climate-related variables, improving climate monitoring, and strengthening early warning and response systems.

Result 1. *Improved plans and green infrastructure reduce vulnerability to flooding, landslides and mudflows in two coastal cities.*

Result 2. *Reduced vulnerability to flooding, landslides and mudflows in two coastal cities.*

Result 3. *Improved weather monitoring and means to alert the local population.*

Result 4. *Improved means to respond to floods, landslides and mudflows.*

Component 2: Strengthening the capacities of local government officials and communities, as well as connections between communities and local and national governments.

Two outcomes will be generated through the development of an online training course on risk-based adaptation for municipal and government officials and implementation of communication and education strategies to increase local awareness and contribute to building cultural memory. The online course will be open to professionals from other coastal cities in Latin America and the Caribbean

Result 5. *Local governments with greater capacity to design and implement adaptation measures.*

Result 6. *Local population and government staff with increased awareness of climate-related risks (floods, landslides, mudflows).*

Component 3: Nurture Project communities of practice and document and disseminate lessons.

The backbone of the Regional Project is the communities of practice that allow the development of collective learning on specific topics. Five communities of practice will be developed.

Result 7: *Lessons and best practices to reduce vulnerability to flooding, landslides.*

2.4 Governance and execution provisions of the Project.

The Development Bank of Latin America and the Caribbean - CAF, is the entity responsible for the implementation of the Project under the name of the Adaptation Fund (AF), and for this it acts as Guarantor before the AF by appointing an official from its Directorate of Environment and Climate Change as focal point to supervise the Project.

The beneficiaries of the Project are the governments of Chile and the Republic of Ecuador, following the name of the Adaptation Fund. In Chile, the Ministry of the Environment (MMA) is the responsible entity while, in Ecuador, it is the current Ministry of the Environment, Water and Ecological Transition (MAATE). These entities are responsible for implementing activities at the national level, including the supervision and evaluation of actions, the achievement of their results and the effective use of AF resources.

The United Nations Development Program (UNDP) is the executing entity and is responsible for the execution of the Project, through the country office in Ecuador, in coordination with the country office of Chile, and guaranteeing regional action. collaborative and coherent. This includes financial management, hiring of personnel, acquisition of goods and services, and is carried out according to the agreement signed with CAF. The Project is implemented as DIM (direct implementation modality), which means that it has the technical and administrative capacity to effectively mobilize and apply the necessary resources to achieve the expected results.

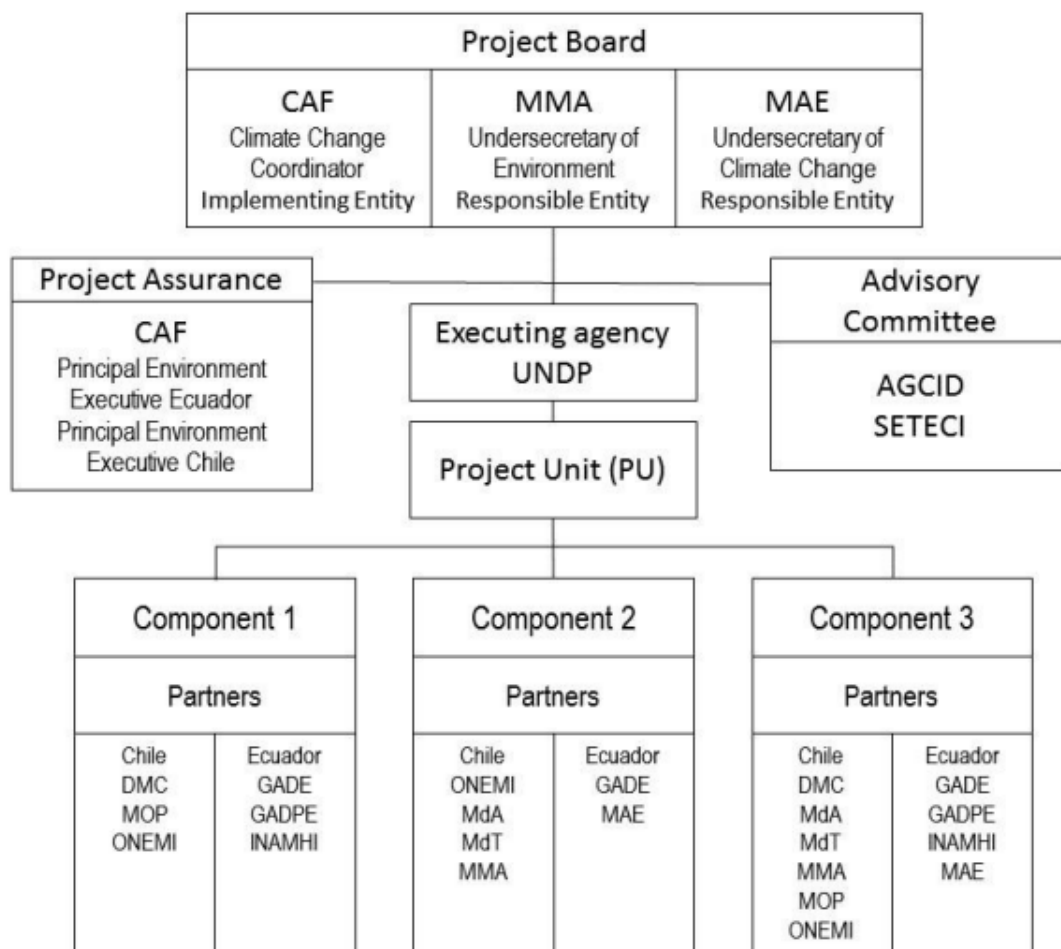
Objective and independent supervision of the Project is provided by CAF's Senior Environmental Executives in Chile and Ecuador, who review the reports and work plans before their presentation to the Project Board or Council, providing recommendations to improve the performance of the Project. Project.

In each country, there is a high-ranking National Coordinator, who is responsible for supervising the national activities of the Project and coordinating closely with the Project partners, the Project Manager, UNDP and CAF. At the same time, regional coordination is maintained through quarterly virtual meetings. For its part, the Project Unit (UP) is led by a Project Manager and has eight specialists hired by UNDP. The Project Manager is responsible for directing the daily operations of the Project and promoting coordination between partners.

The Project is audited in accordance with UNDP internal and external audit policies and procedures, either by the UNDP Office of Audit and Investigations (OAI) or by an audit firm contracted by OAI. In case of problems, CAF notifies the UNDP Financial Director for further supervision and possible intervention by the OAI, the costs of which will be covered by the Project.

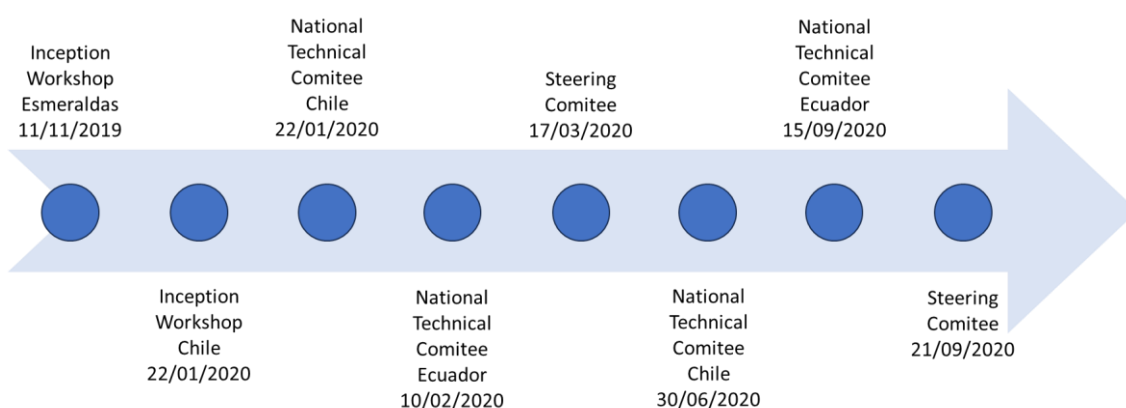
Figure 1 illustrates the governance structure described, and the composition of the Project Unit, based on the three components, and the participation of partner government entities. There is also an Advisory Council made up of representatives of the respective country government entities, in charge of international cooperation and negotiations.

Figure 1. Project Organization Structure



2.5 Project calendar and milestones

During the development of the Third Steering Committee (corresponding to the first Committee of 2021), the following milestones carried out in 2020 were presented through the Technical and Steering Committees carried out.



At the meetings of September 9 and 15, 2021, the minutes of the Sixth Steering Committee were presented, which indicates the following adjustment of milestone dates, to address the initial delay of one year and two months:

Milestones	Initial dates⁶	Adjusted dates⁷
Start of Project Implementation	October 2018	January 22, 2020
Mid-term Evaluation	October 2021	January 2023
End of project	October 2023	January 22, 2025
Terminal Evaluation	July 2023	July 2025

On the other hand, in the meeting of January 27, 2022, in which the objective was to inform the partner institutions of the Project of the progress in the implementation of the planned activities and to share updated information on the findings found, it was established, as one of the agreements, the presentation of a schedule of milestones for compliance with the proposed changes⁸.

2.6 Main actors and stakeholders

The Project actions in Ecuador are executed by the Project Unit in charge of the UNDP, in coordination with the MAATE, through the Undersecretary of Climate Change, a national authority designated by the Adaptation Fund. The Project is implemented in Ecuador in the city of Esmeraldas with the following partner entities: Municipal Decentralized Autonomous Government of Esmeraldas (GADM Esmeraldas), the Provincial Decentralized Autonomous Government of Esmeraldas (GADP Esmeraldas), the National Institute of Hydrology and Meteorology (INAMHI), Cáritas Esmeraldas, and the Pontifical Catholic University of Ecuador Esmeraldas headquarters (PUCESE).

In Chile, the Project collaborates with the Ministry of the Environment (MMA), which in turn works closely with the Ministry of Public Works (MOP), the National Disaster Prevention and Response System (SENAPRED), the National Geology Service and Mining (SERNAGEOMIN) and the Meteorological Directorate of Chile (DMC) in the Second Region of the Great North; specifically, in the cities of Antofagasta and Taltal, and in coordination with the municipalities of said cities.

⁶ Programme Proposal

⁷ Adjusted to the start date of the Project (Inception Workshop)

⁸ This schedule of milestones has not been included in the Project documents that have been reviewed, so it is unknown if it has been prepared or if its publication is pending

3. Results

In general, the progress made so far in the results is rated as moderately satisfactory. There have been delays in certain activities caused by obstacles inherent to the intervened countries, but also to the management of the Project, especially in financial planning. It also highlights the identification of risks that were not mapped in the Project planning. Despite these situations, it is identified that the scope of people protected by the Project's actions exceeds what was planned.

Regarding the Project's intervention in the selected areas of Antofagasta and Esmeraldas, it is believed to be pertinent, due to the history of recorded climatic events. Likewise, in the intervened cities, meteorological monitoring equipment and an Early Warning System have already been implemented and the construction of protection infrastructure is expected. Training activities and the sharing of knowledge for safety in the face of disasters that could occur also stand out.

3.1 Project Strategy

3.1.1 Project Design

The Project's ultimate objective is to improve adaptation and resilience in vulnerable coastal cities by sharing lessons learned and good practices in Latin America. The results are grouped into three components: increasing resilience, implementing mitigation measures, and strengthening adaptive capacity within vulnerable cities. Regarding the places of intervention of the Project, in the case of Ecuador, the Project has the objective of reducing vulnerability to climatic threats of floods and landslides in the Esmeraldas canton, specifically in the area of Cerro Gatazo and Luis Vargas Torres Island.; while, in Chile, the territorial focus was focused on Antofagasta, Quebrada Bonilla, and the city of Taltal, where alluvial control works are being carried out.

The design of the Project was carried out between 2015 and 2016; and the agreement between CAF and UNDP, for its implementation, in 2019. The start of the Project took place in January 2020. In this complex scenario due to the time lags to begin activities in the territory, the Project Unit had the ability to adjust your initial planning, even with the further difficulty of the COVID-19 pandemic in March 2020.

In the case of Chile, the Project design has been updated, seeking to optimize it based on geotechnical studies and investigations and accumulated experience. Compared to the original design, the scope of infrastructure works (number of stabilizing walls) was significantly reduced.

The Project is aligned with the respective national priorities, and seeks to obtain lessons and good practices applicable to analogous cases in the Region. In Chile, the Project adjusts to the new legality of paradigm shift towards prevention, and contributes to improving the conditions of coastal cities, especially in infrastructure. Additionally, the Project serves as a pilot and study to replicate climatic and biological methodologies at

institutional level, strengthening public policies related to climate change. In Ecuador, the Project is aligned with national public policy instruments such as the National Climate Change Strategy and the Public Policy for Adaptation to Climate Change, since, under the name 'Adaptaclima', it has been part of the structuring process of the National Adaptation Plan (PLANACC), which was made official by the MAATE in February 2023.

During the design and structuring process of the Project, various perspectives have been taken into account, especially those of those who would be affected by the Project's decisions, and those who could provide information and resources. Thus, the Project has been designed in a participatory manner, focusing on prevention and civil society, with a special gender and generational perspective. A direct approach has been maintained with the population, which indicates consideration of the perspectives of local communities and citizens in general. In addition,

The results of this inter-institutional coordination have been positive in terms of "joining efforts" to effectively face the challenges and complexities of the implementation of actions in the territory of the Province of Esmeraldas; and has been materialized in the implementation of concerted actions with the national environmental authority (MAATE) and with the Risk Management Secretariat (SGR).

The experience and specialists in the design of the work will be used in the next climate change plan of the Chilean Ministry of the Environment. It is aligned with the perspective of reducing climate risk in Antofagasta and agrees with regional policy. The Project exemplifies the territorial implementation of the national climate change policy, seeking resilience and carbon neutrality by 2050, and is an alternative to implement the climate change framework law.

The Project includes gender considerations for interventions in the territory, with the purpose of generating awareness. The components of gender inclusion have been considered from various perspectives, with the aim of promoting an inclusive approach and empowering women in the process of adaptation to climate change and its impacts through training activities and memory preservation. communal.

Despite its aforementioned characteristics of coherence and relevance, the Project design confirms a structural condition in its formulation, common to similar development initiatives in the Region, in conditions of uncertainty or social changes. The social and economic conditions in the Region may undergo drastic changes in a short time, and alter the viability of the solutions provided for in the Projects. Such is the case of the negative conditions developed in Esmeraldas, which have affected the course of implementation of the Project. On the other hand, the high turnover of management personnel, and to a lesser extent, of technical personnel, represents a recurring limitation for the smooth execution of the actions of the development projects, and are not usually weighted as such in the design assumptions.

3.1.2 Analysis of the Results Framework/Logical Framework

The Project results framework refers to the structure of components and results, as well as the respective goals and progress indicators. Overall, the framework responds

to an implicit 'Theory of Change' vision by postulating that the results aim to improve adaptation and resilience in vulnerable coastal cities, sharing lessons learned and good practices in Latin America, based on three intervention sites., in regions of two countries, which present typical vulnerabilities to climate phenomena.

Both the objective and the statements of results are limited to the specific places of intervention, and therefore the general objective at which the Project aims, that is, obtaining examples and experiences of application for other coastal cities in the Region, does not. It is immediate in scope and will require subsequent analysis and actions. The MTE, consequently, focuses on the progress and achievements referred to the framework, baselines, goals and explicit indicators.

In this sense, it can be seen that the goals are quite generic and are not defined in qualitative terms, but rather in global quantitative units. Consequently, the indicators are also global and necessarily lack SMART qualities, such as specification of temporality and specificity, limiting their measurement to the total completion of the result.

Despite the methodological limitations, the results framework is sufficiently simple and clear regarding the achievements to be achieved, only in certain cases considering mid-term goals in addition to end-of-Project goals.

3.2 Global progress of the Project towards Results

The Project is on a moderately satisfactory course, despite having tight deadlines. The focus is maintained on meeting the established goals. The prompt execution of works is expected, although no news has yet been received regarding contracting or awarding of Projects. However, it is important to highlight that the administrative procedures are ongoing and advancing.

Collaboration between state entities and the executing team to address a common territory is essential to face shared challenges. Therefore, the constant support and efforts made by local institutions are recognized, such as the Ministry of the Environment together with the Municipality of Esmeraldas, the SNGRE and the INAMHI, in Ecuador, and the Ministry of the Environment (MMA), Public Works. (MOP) and the Chilean Meteorological Directorate (DMC). The success of the Project should not be seen as an isolated achievement, but as part of comprehensive policies that involve multiple sectors.

The Project Unit (PIU) team demonstrates capacity and commitment, which is reflected in the delivery of products. This has allowed the Project to progress despite the delays caused by the pandemic and the political and social problems in the intervention localities, which, so far, have not had a significant impact. It is worth mentioning that the execution program has experienced an extension compared to the initial planning.

In the intervention in Antofagasta-Taltal, there are advances in infrastructure due to the design of settling pools, and the implementation of a storm monitoring system, which represents significant advances. In addition, the usefulness of instruments such as threat zone plans has been validated and the inclusion has been expanded to areas near Antofagasta to improve evacuation in the event of threats. The possibility is raised

that the Project would have had an even greater scope, including towns such as Taltal and Mejillones, in order to develop evacuation plans and new maps.

In the case of Esmeraldas, the infrastructure and operation of a total of eight new stations stands out, in addition to five stations undergoing a modernization process by INAMHI. The designs of the bridge that connects Roberto Luis Cervantes Island with the continent have been updated, in collaboration with the beneficiaries. For safety reasons, it was not possible to move forward with the improvement work planned for the bridge. For these same reasons, obstacles arose to updating the design of the infrastructure works in Cerro Gatazo within the framework of the Green Infrastructure Plan for Esmeraldas, which was prepared within the framework of the Project.

The Project has supported INAMHI in meteorological monitoring, with the supervision and control of the stations in the Esmeraldas region. The creation of mobile applications aimed at issuing alerts in case of possible floods was also promoted. The installation of equipment in the Early Warning System against Floods on Luis Vargas Torres Island stands out. Currently, technical tests are being carried out in order to ensure the correct functioning of the system. However, due to insufficient safety conditions, the drill planned for this year was postponed. The decision to postpone it was made jointly by the Municipality of Esmeraldas and the SNGRE.

In the area of training and awareness, a course focused on Disaster Risk Management and Adaptation to Climate Risk was carried out. Likewise, various activities framed in communication and public education strategies were developed, with the purpose of raising awareness among the population about climate risks.

In the area of training and awareness, a course focused on Disaster Risk Management and Adaptation to Climate Risk was carried out. Likewise, activities framed in communication and public education strategies were developed, with the purpose of raising awareness among the population about climate risks.

As a whole of Components and Results, the overall progress rating of the Project is established as Moderately Satisfactory (MS), strictly speaking, even though considering the delays due to force majeure and the possibility of extending the duration of the Project, it would merit a better prospect.

3.2.1 Analysis of progress towards results

Below is a summary of the progress towards the results, detailed in Annex A of this report, indicating the progress towards the MTE of each result, and the respective qualification, with the colors of the 'traffic light'.

Objective of the project:

MS

Reduce vulnerability to flooding, mudflows and landslides climate-related land developments in three coastal cities, by integrating a risk-based approach to adaptation, collaboration, and networking.

Objective Indicator:

MS

Number of men and women covered by warning and evacuation signals to respond to floods (Esmeraldas) and mud flows (Antofagasta and Taltal).

In general terms of DRR, in the aspects covered, the Project presents a general delay in its execution schedule, both in financial progress and in physical

progress; However, the indicator is satisfactory for the town of Antofagasta-Taltal, where the planned goal would have been met. In the town of Esmeraldas, recent, unforeseen problems of social disruption have affected execution. Overall, progress is seen to be Moderately Satisfactory (MS).

Outcome 1: **HS**

Improved plans and green infrastructure reduce vulnerability to flooding, landslides and mudflows in three coastal cities.

Indicator 1.1: **HS**

Number of plans that incorporate provisions for adaptation to climate change, with a gender perspective.

The goals for the medium-term period have been met in both work locations. The progress allows us to foresee that the goal for the end of the Project would be met. Indeed, the Green Infrastructure Plan was officially delivered on October 13, 2021. It is a complementary plan to the Land Use and Management Plan and the Territorial Planning Plan of Esmeraldas. Its objective is to constitute an urban planning tool to prepare the city against the impacts of climate risks. It incorporates provisions for adaptation, with a gender focus at the cantonal level. It has a GAD-ME Municipal Ordinance of March 4, 2022.

The Antofagasta Rainwater Evacuation and Drainage Master Plan was updated and communicated since June 2022. It has incorporated topics such as urban development, climatic events that have occurred, and climate projections.

Indicator 1.2: **S**

Number of hectares restored/replanted in Esmeraldas

The Project team and its partner the Pontifical Catholic University Esmeraldas headquarters (PUCESE) are executing their agreement for the reforestation and restoration of the 40 hectares in the city of Esmeraldas. Currently almost 4 hectares reforested in Esmeraldas. Until December 2023, it is planned to reach 10 hectares. On average there are 800 to 1000 native plants per hectare. Overall, it can be seen that the progress of activities in Result 1 is Highly Satisfactory (S)

Outcome 2: **U**

Reduce vulnerability to floods, landslides and mudflows in two coastal cities.

Indicator 2.1: **U**

Number of physical assets built to withstand conditions resulting from climate variability and change.

Due to social insecurity, the construction of the planned anti-slip measure on Cerro Gatazo, in the city of Esmeraldas, has not been possible so far. The Project has formally supported an extension to the Adaptation Fund.

In the Antofagasta area, the mid-term goal has not been met. In the Quebrada Bonilla, the alluvial control work is being built, which is not yet finished, due to delays in the process.

Indicator 2.2: **U**

Number of men and women protected by improved infrastructure to resist climate change and variability-induced stress.

Although a mid-term goal is not evident in the Programme Proposal for this Outcome; it is estimated that it has not been achieved given its volume and execution time. It has not been possible to build the planned physical assets in any of the intervention areas, which is why it is not possible to count the people protected by this infrastructure. There is progress regarding the design of the infrastructure, however, the start of their construction is pending. Furthermore, the socioeconomic study of the intervention area did not provide for alerts or recommendations on the issue of insecurity in the neighborhoods of Cerro Gatazo in Esmeraldas. Overall, progress on Outcome 2 is estimated to be Unsatisfactory (I).

Outcome 3: **MS**

Improved climate monitoring and early warning means for the local population.

Indicator 3.1: **S**

Number of radars in Esmeraldas and storm detection systems in Antofagasta to monitor precipitation, linked to gender-sensitive early warning systems.

The end goal of the Project would be met. However, the gender perspective in development is not mentioned for this part of the result. In 2022, a storm detection system visualization platform for the north of the country was delivered – in conjunction with the Chilean Meteorological Directorate. To improve monitoring of the Project cities, storm and lightning detection sensors were installed in each of them.

Indicator 3.2: **MS**

Number of weather stations to monitor rainfall affecting cities, linked to gender-sensitive early warning systems.

The stations that make up the SAT LUVATO are in charge of the GADM Esmeraldas. In Antofagasta the stations have not yet been installed. In Ecuador, the SAT LUVATO has a station that measures the level of the Esmeraldas River (San Mateo), a station that measures the Tide Level (APE), an alarm station on Luis Vargas Torres Island, and a monitoring station. in the ECU911. Overall, it can be seen that the average progress in Result 3 is Moderately Satisfactory (MS).

Outcome 4: **S**

Improved means to respond to floods, landslides and mudflows.

Indicator 4.1: **S**

Number of men and women covered by warning signs, and evacuation, to respond to

floods (Esmeraldas) and mud flows (Antofagasta and Taltal).

Indicator 4.2:

S

The early warning systems in Antofagasta, Taltal and Luis Vargas Torres Island are gender and culturally sensitive, and consider the special needs of people with disabilities

The Programme Proposal does not prescribe mid-term goals for these outcomes. The progress in Esmeraldas is recognized, however, it cannot be rated equally in the case of Antofagasta, since SAT has not been installed. However, the evaluation considers that the final goals in both results will be achieved at the current rate of progress.

In Esmeraldas, the Luis Vargas Torres Island Early Warning System (SAT) benefits more than 2,500 families (approximately 12,500 people) who live on the island. In addition, the Hydrometeorological viewer generated with INAMHI and operational in 2023 to monitor the entire water basin of the Esmeraldas River, benefits the entire population of the canton (189,504 inhabitants). In the case of Antofagasta, the SATs have not yet been installed, however, it is expected that they will cover the entire populations of Antofagasta and Taltal. Overall, progress in Result 4 is rated as Satisfactory (S).

Outcome 5:

MS

Local governments with the capacity to design and implement adaptation measures.

Indicator 5.1

MS

Number of officials (men and women) of local governments and relevant entities, trained in risk-based adaptation, with a gender perspective in coastal cities.

The Programme Proposal does not specify mid-term goals; but

Progress, to date, of the total in Ecuador and the partial in Chile, allow us to predict that the final goal will be reached. A new cycle or edition of the diploma must be organized, anticipating and considering the high turnover of responsible technical personnel in local governments.

In Ecuador, 32 and in Chile, 38 local and national officials were trained on the use and benefit of green infrastructure in coastal cities through a Higher Diploma managed by the Project and the University of Chile.

Outcome 6:

S

Local population and government staff with increased awareness of climate-related risks (floods, landslides, mudflows)

Indicator 6.1:

S

Number of men and women who have participated in awareness-raising activities and events.

The Programme Proposal does not set out mid-term goals; but the reported figures exceed what was expected, so it is advisable to evaluate and monitor these scopes, in order to establish the impact over time of these activities.

As of the date of the MTE, the following participation in socialization activities and events is reported⁹:

- In Antofagasta 29,389 people (17,074 women and 12,315 men); In Taltal 15,762 people (8,345 women and 7,417 men);
- In Esmeraldas 44,864 people (22,509 women and 22,355 men).

Indicator 6.2: **S**

Number of storytellers (men and women) trained in maintaining the cultural memory of climate-related disasters and risks.

So far there are 8 women and 5 men (13 in total) who are narrators trained in maintaining the cultural memory of disasters and climate-related risks in Esmeraldas, in Antofagasta, there are 6 women and 10 men, and in Taltal there are 10 women and 4 men.

Consequently, the joint progress of the actions for this Result is classified as Satisfactory (S).

Outcome 7: **S**

Lessons and best practices to reduce vulnerability to climate-related flooding, landslides and mudflows in coastal cities have been shared in the region.

Indicator 7.1: **MS**

Number of men and women (by nationality) who have participated in events to disseminate lessons and best practices (for example, workshops, exchange visits, seminars).

To date, 109 people are reported in Antofagasta, 0 in Taltal and 31 in Esmeraldas.

Indicator 7.2: **HS**

Number of visitors per month (annual average) registered in the channel network

The registered visitors per month are 21,733, which exceeds the established goal by more than 21,500. Overall, this result is rated as Satisfactory (S).

⁹ The details of events have not been evidenced in the documents reviewed

3.2.2 Remaining obstacles to achieving the Project objective.

Implementation in the Antofagasta area (Chile)

One of the most outstanding pending issues is the installation of the stations, which is complicated mainly due to administrative and coordination delays in obtaining permits.

Although the Project shows positive progress, it faces sociopolitical difficulties in Antofagasta due to the tensions that have arisen between the regional delegation, the government and the municipality. These tensions have their origin in the diversity of political parties and methods of appointing members of these organizations.

A critical point of concern is that most of the camps involved contain a population of foreign origin and are located in hill areas that have been identified as areas with potential risk of floods.

In addition, concerns arise regarding infrastructure aspects, such as leakage and the capacity of the pipes to be installed as part of the Project infrastructure, which could represent a potential risk. Also, the availability of electrical energy has become a challenge, since it was interrupted for a period of a month and a half, which has posed additional difficulties in the implementation of the Antofagasta Rainwater Evacuation and Drainage Master Plan.

Barriers and obstacles are related to bureaucracy and temporal restrictions. Regulations, especially for the private sector, have limited the execution of the Project. Furthermore, territorial planning in Chile is a central challenge, marked by overlaps and some regulations that make the transition between urban and rural areas difficult, negatively impacting development and security.

The Project must also face the challenge of integrating communal and regional climate change plans, which are now binding by law. To protect the environment, threat-based regulation and increased environmental education are required. Physical participation in the Project has been limited, suggesting the need to organize a seminar with regions similar to Antofagasta to share experiences and progress.

Although the regional government recognizes the importance of flood control works and has plans and secured financing to build 15 of them, the link with the private sector for expensive projects has not yet been sufficiently explored. This is due to restrictions related to the environmental impact assessment and precautions of the Ministry of the Environment. The regional government could promote this relationship, but it is currently being handled cautiously and has not been part of the Project to date.

Implementation in the Esmeraldas area (Ecuador)

Esmeraldas is immersed in a complex situation in relation to the increase in violent acts carried out by organized crime groups. Numerous in-person activities, including workshops and community projects, have been canceled due to the absence of safety guarantees (See Annex J).

This leads to a delay in vitally important activities that had been properly planned, such as updating the designs for the landslide control works in Cerro Gatazo and

reforestation initiatives. A clear example has been the recent theft of the equipment from three hydrometeorological stations acquired by the Project.

Likewise, the issue of public procurement has emerged as a barrier due to the technology that needs to be incorporated. It has been found that the public procurement process becomes somewhat cumbersome due to this situation. Rotation in different areas also affects and limits Project management, being evident in the case of local authorities, where there has been a notable turnover.

3.3 Project execution and adaptive management

3.3.1 Management agreements

A substantial modification of the Project was made, in a process that involved internal reviews and steering committee of the Project approvals, as well as presentation of necessary documentation to CAF. Subsequently, they were sent to the AF for comments¹⁰.

Adjustments were made in the indicators and in the allocation of budgets to different areas of the Project, such as the early warning system in Esmeraldas. Savings were raised in activities, such as exchanges and follow-up trips, which allowed funds to be redirected towards the structural reinforcement of a bridge.

Another modification is being considered due to the proposed extension of the Project, based on various reasons, such as the impact of COVID-19, protests in Chile and Ecuador, insecurity in Ecuador and government officials changes in Chile. Those circumstances have required adjustments and expansions of the Project to adapt to new realities.

CAF's participation in the Project is crucial to connect it with the Adaptation Fund. Despite some problems and delays, internal digital formats and platforms have been implemented to maintain fluid communication with CAF, recognizing its importance as an implementing agency; and the need to streamline financial intermediation processes before the AF has been expressed by the interviewed actors.

Disbursement management has faced difficulties, since the agreed dates have not been met. This is especially critical at the start of construction, where a constant cash flow is needed for the construction. In this sense, we seek to improve efficiency in communication and access to resources. The recognition of bottlenecks and internal processes at CAF indicates the need to coordinate and streamline financial procedures.

UNDP plays a crucial role in the Project, providing its expertise in procurement and purchasing, which results in a faster and more efficient process compared to the conventional public system. This is considered one of the main contributions of UNDP to the Project. UNDP's approach is characterized by being multidisciplinary and transversal, with the ability to establish connections and overcome barriers to entry. Although the will and aptitude of the authorities is valued, the infrastructure behind the will appears to be less solid in terms of implementation.

It is important to mention that when it comes to the construction of a flood control work, an area in which the UNDP does not have its own experience in Chile, and exhaustive permits and procedures are required. Beyond the initial commitments for the development of this area of the Project, it is necessary to strengthen coordination with governments to make obtaining permits and administrative procedures more fluid.

Despite possible delays in the construction of a project of this magnitude due to the lack of previous experience at the national level, UNDP remains agile and fast in the execution of procurement processes and other administrative aspects of the Project; and also has an active role in communication actions.

¹⁰ Decision B.38-39/2. Request for change of original outcome targets and indicators, outputs, and revision of implementation arrangements: CAF (Chile, Ecuador)

3.3.2 Work planning and gender, intercultural and age approaches.

Scope of intervention in Chile

Participation in the Project began during the pandemic, which made it difficult to know the details of the efforts. The return after the pandemic has generated significant challenges in participatory processes with vulnerable communities, especially due to the lack of internet access and technological resources. These challenges have negatively impacted the progress of the Project, evidencing the need to create spaces where these people can contribute and reflect. During that time, progress was only made on cabinet matters, since the consulting team could not travel.

The Project is being decentralized in Chile, but weak communication with the central level is perceived. This may be because the pandemic has made travel and in-person meetings difficult. To accelerate progress at the local and regional level, communication with the central level must be improved to obtain greater support and mutual knowledge.

The Project stands out in its communication campaign, particularly in education about climate change and floods. The Adaptaclima page¹¹ has been widely shared as a positive example in this area. In terms of execution, coordination and communication between actors have been adequate. In this regard, it is suggested to expand communication through accessible information and periodic presentations. The actors have shown growing interest in the Project due to the concrete results perceived.

A memorandum of understanding defined the roles of the institutions involved in the Project. SENAPRED will be in charge of the maintenance and operation of the sirens, while UNDP will acquire and install the equipment. After installation, the goods will be delivered to SENAPRED, with a minimum guarantee of 36 months.

The installation of sirens and signs for flood threats is a national milestone. Drills will be carried out to test its operation. Emergency plans in municipalities are important and are being created for each specific threat, involving citizen participation and validations.

The community engagement and public education strategy is vital due to Antofagasta's unique climate and lack of rain. Education addresses climate change, the role of flood control works and the importance of preparation. It also highlights the gender impact, since women are more vulnerable to these events.

As for the interested parties, they actively participate in the Project, with a differentiated focus on participatory processes, especially in terms of gender. Women's leadership has been promoted and specific spaces have been created to ensure their participation, including housewives. There is a real intention to include and engage women in the implementation. The presence is recognized predominance of women in the Project and its professional approach in the women's tables; However, the intergenerational aspects and the participation of the older population seem to have been omitted, as well as the opportunity to involve universities more through dissemination in seminars. In general, the Project is considered to have been effective in terms of the

¹¹ <https://adaptaclima.org/>

gender approach.

Women are taking on more active roles and responsibilities, as evidenced by the Mosaic Project. This increase in their involvement has resulted in greater participation and, in some cases, has contributed to changing gender attitudes and perceptions. Although it cannot be confirmed whether this has led to an increase in respect or apprehension, greater empowerment and confidence on the part of women in facing challenges is evident.

Scope of intervention in Ecuador

Due to health restrictions due to the pandemic caused by COVID-19, virtual activities were promoted, which promoted activities such as training in this modality¹² or the Narrator platform¹³. It was necessary to carry out activities virtually, which has given rise to major challenges in participatory processes with vulnerable communities, particularly due to limitations in access to the internet and technological resources.

Subsequently, in-person workshops were held following guidelines established by the government. Actions have also been implemented to promote gender equity, such as: Incorporating a participatory and inclusive approach in the execution of the Project in all workshops, events and training. The UP team has a good gender balance; there is a public communication strategy to empower and involve local communities; and training of territorial women's tables to strengthen their participation in risk management issues in the communities.

3.3.3 Financing

The Project has a direct implementation approach, managing financing and resources internally, with specialized consultants as needed. The Project does not have co-financing, financing is differentiated between Project accounting and third-party resources. Investments in studies and works are financed with ministerial budgets, considered as contributions. The consultants are chosen through open tenders to registered companies, ensuring experience.

Those interviewed agree that the budgets assigned to each activity could have been better distributed. This is reflected in two specific situations: First, in some cases the amount established for an activity is not aligned with reality, and, on the other hand, the budget was concentrated on infrastructure activities, but more could have been allocated. funds to other activities such as plans or training to have greater scope and development.

With respect to disbursement deadlines, it is verified through the interviews carried out that there is a delay in the assigned disbursements, which in turn delays the start of the works and the execution of the activities. It is worth mentioning that, in addition, within the Project Agreement it is indicated that "The payment schedule takes into account the need for payments to be made in advance of the execution of the planned activities." However, according to the information obtained in the interviews, these deadlines are not being adequately met.

¹²<https://adaptaclima.org/biblioteca/webinars/>, <https://www.learningfornature.org/es/courses/green-infrastructure/>

¹³ <https://adaptaclima.org/ruta-de-narradores/>

In clause 7 of the Project Cooperation Agreement, the following is mentioned: “CAF will disburse the Resources for the execution of the Project (established in the Project budget), in accordance with the payment schedule. The disbursements will be credited to the UNDP bank account.” In this context, it is considered that all disbursements will be subject to CAF having received the corresponding contributions from the FA.

In 2021, the first amendment was made to the Project Agreement, related to the Disbursement of Resources, in which the following is mentioned: “It is understood between the Parties that this payment schedule is referential, since it may be modified by the Parties through a new amendment.”

In 2022, the second amendment to the Payment Schedule table was made. There it is modified as follows: “Disbursements will be made in advance, twice a year, once UNDP presents the following documents: the Minutes of the Steering Committee that approved the Semiannual Procurement Plan, the Semiannual Financial Report approved by CAF, The disbursement request must be accompanied by evidence of the financial execution of the previously disbursed resources and that 80% of the previous disbursement has been committed.”

3.3.4 Monitoring and evaluation systems at the Project level

The transfer of tracking information to a cutting-edge internal platform has been achieved. Here, regular monitoring is carried out that covers various essential aspects of the Project. These aspects include capturing key indicators, monitoring progress against established objectives, risk management and a focus on gender equity. All these parameters are meticulously defined in the platform. In addition, the practice of generating periodic reports that cover two critical areas is maintained: budget progress and technical-physical progress in the execution of the Project at UNDP.

In addition, regular internal meetings are held with the Chile and Ecuador teams, as well as with the entire team to collect the necessary information for the reports. This information is also reflected in the PPR. This approach aligns with the 15 principles of the Adaptation Fund, ensuring the identification of risks and necessary actions as part of continuous monitoring.

The following table presents a summary of the meetings held:

Date	Meeting	Aim	Participating Institutions
03-17-20	First Steering Committee Meeting	Approve by the Steering Committee the Project Management Arrangements document, and the Procurement Plan and socialize the Operational Planning for the first half of 2020.	- CAF - UNDP - MMA - MAATE
09-21-20	Second Steering Committee	Share with the Steering Committee the progress of the Project, the Operational Plan and the Acquisitions Plan for the second half of 2020.	- CAF - UNDP - MMA - MAATE
01-14-21	Third Steering Committee	Share with the Steering Committee the programmatic and financial progress of the Project achieved in 2020, as well as approve the report on the execution of the Project (PPR), the update of the Environmental and Social Management Plan (ESMP), the Annual Operational Plan 2021 and the Acquisition Plan for the first half of 2021.	- CAF - UNDP - MMA - MAATE
04-27-21	Fourth Steering Committee	Share with the Steering Committee the programmatic and financial progress of the Project achieved until April 2021, the update of the Procurement Plan, the 2021 Annual Operational Plan and the risks and mitigation measures of two unidentified subprojects in compliance with the Social and Environmental Policy of the Adaptation Fund.	- CAF - UNDP - MMA - MAATE
09-09-21	Sixth Steering Committee	review and approve the Substantial Change proposal made to the Project that will be sent to the Adaptation Fund through the CAF.	- CAF - UNDP - MMA - MAATE
01-27-22	Virtual Meeting	Inform the Project partner institutions of the progress in the implementation of the planned activities, share updated information on the findings found, and confirm the risks associated with insecurity in the city and jointly propose solutions and mitigation measures.	- CAF - UNDP - MAATE - GADME - SNGRE
04-03-22	Seventh Steering Committee	Share with the Steering Committee the programmatic and financial progress of the Project achieved until December 2021, the planning of the Acquisitions Plan and the 2022 Annual Operating Plan and the main risks of the Project.	- CAF - UNDP - MMA - MAATE
03-17-22	Virtual Meeting	Present and analyze the proposed alternatives to the infrastructure works initially planned in the 20 de Noviembre neighborhood in Cerro Gatazo.	- CAF - UNDP - MAATE - GADME - SNGRE
04-10-22	Virtual Meeting	Share with the Steering Committee the programmatic and financial progress of the Project achieved until June 2022, the planning of the Procurement Plan and the 2022 Annual Operating Plan and the main risks of the Project.	- CAF - UNDP - MMA - MAATE
03-22-23	Eighth Steering Committee	Share with the Steering Committee the programmatic and financial progress of the Project achieved in 2022, the planning of the Procurement Plan and the 2023 Annual Operational Plan, the identified risks and the mitigation measures for the construction of the alluvial control works in Quebrada Bonilla and the main risks of the Project.	- CAF - UNDP - MMA - MAATE

Source: Minutes of meetings shared by CAF

3.3.5 Stakeholder engagement and gender approaches

The participation of Project stakeholders in both countries is highlighted. State entities, academic institutions and non-governmental organizations have been involved in the Project, contributing to the achievement of objectives. Efforts to include local women and people from different generations are highlighted.

In the case of Chile, it has been seen that progress towards results has been achieved thanks to constant communication with technical organizations such as SENAPRED and the DOH, with whom agreements have been established through memorandums of understanding to detail specific products. It is highlighted that the interested parties are not centralized, maintaining a direct link between the Projects unit and the technical organizations in collaboration with the environment SEREMI in Antofagasta.

The creation of regional climate change councils is valued to strengthen communication between central and regional levels, but in issues of participation with rural communities and indigenous peoples, challenges may arise due to distance and access to technological resources.

In the case of Ecuador, the Project has established a network of strategic partners, including the Prefecture, the Municipality, SGR Esmeraldas and MAATE Esmeraldas, as well as collaborations with the fire department, the Red Cross, the national police and local universities, adapting to specific needs on the ground.

The agreements with the PUCE headquarters Esmeraldas and Caritas Esmeraldas have expanded their scope by addressing reforestation and education on risks and climate change, demonstrating a comprehensive approach towards community resilience.

Emphasis is placed on understanding the government mechanism for effective participation and empowerment, reflecting efforts to actively contribute, take advantage of technological opportunities, and collaborate on understanding and empowerment within the government framework.

Likewise, it is identified that, since the inception of the Project, the gender approach has been taken into account, with the establishment of specific indicators for accounting for the participation of women in different stages of the Project, as well as the number of women who are being benefited. Furthermore, the PPR records that by 2021 most indicators with a gender focus have been surpassed.

3.3.6 Social and environmental standards (safeguards)

Considering the risks identified in the Project and their respective qualifications, a review of some of them is recommended. Specifically, in relation to risks classified as Moderate, an additional evaluation of mitigation measures related to the change of government at the central, municipal and provincial levels is suggested, due to the significant delay experienced so far.

Additionally, consideration should be given to reviewing the risk associated with staff restructuring, as this could lead to a knowledge gap among new members. Despite planned meetings to share Project progress and regular reporting on activity progress and budget implementation, it is essential to carefully examine these processes to ensure they effectively meet their objective.

In that sense, and having evaluated the categorization of risks according to the Environmental and Social Principles of the Adaptation Fund in the Project, it is considered pertinent to review those risks related to the participation of indigenous peoples, access and equity (due to the issues related with insecurity and violence in Esmeraldas), and involuntary resettlement (in Antofagasta and Taltal). This review would be focused on providing greater monitoring of mitigation measures, in order to prevent risks from materializing and increasing the impact of each one.

Regarding the mitigation measures for the social and environmental risks identified, it is observed that they are working and that they allow the continuity of the Project. However, there are some risks of delays in disbursements or prioritization of other activities by government authorities, as reported in the PPR, which may generate delays in the execution of activities in the field. At the moment, immediate solution measures are applied in some, but it must be taken into account that these palliative measures will not necessarily work in the long term and a rethinking of these may be necessary that considers the real resources needed to mitigate the risks.

It is considered that, for a better understanding of the risks that are being presented and the measures implemented to mitigate them, the documents presented before the execution of the Project, such as the IRAS and the PMAS, and the PPR, should be homologated. Because what is presented in these documents as risks do not coincide. Along the same lines, it is considered that an update of the risk identification and mitigation measures should be made, since, as the Project progresses, it has been recognized that new risks appear that were not considered in the design. of the project.

3.3.7 Reports

Until the time of this MTE, 2 PPR published prior to the MTE and 1 published afterward have been identified. These reports provide relevant information on Project management, identified risks, financial progress and progress towards goals and objectives.

In some cases, the depth in the description of progress and challenges does not offer a complete vision of the evolution of the Project. The PPR present progress data for each indicator; however, they do not mention the activities that have been carried out to achieve these advances. This means that the effectiveness of the specific actions carried out with respect to the objectives cannot be evaluated.

Likewise, the presentation format does not allow an extension of details or the identification of progress over time in the same document. The need to display information in a dynamic and intuitive way, such as through presentations, has been identified. It has been mentioned that current reports could be more accessible and understandable, indicating that it would be beneficial to have a "policy brief" that is generated periodically, that synthesizes the lessons learned and presents the information in a balanced manner.

3.3.8 Communication and knowledge management

The external communication strategy is deployed through various channels, including quarterly newsletters, social media platforms, the official website and local media. These channels have been designed with the purpose of connecting with young people and key audiences effectively.

The quarterly newsletter aimed at institutions plays a crucial role in expanding

dissemination, while the indicators present on the website¹⁴ demonstrate the firm commitment to the transmission of information and the promotion of awareness. Additionally, the presence of a regional communicator reinforces the effectiveness of messages in different geographic areas.

Through an intelligent combination of digital and traditional media, visibility is increased among the young population, as well as among institutions and essential actors involved in adaptation and risk management.

Regarding Project communication, a series of workshops were held with women community leaders focused on climate change and disaster risk management. These workshops were held in two versions: the first addressed theoretical aspects, while the second provided practical training in home emergencies and first aid. In addition, backpacks with emergency kits were distributed and we collaborated in training older adults in collaboration with the Proyecto Memoria Foundation. These activities have contributed to the communication and participation of key stakeholders in the Project.

The adaptation of the Project information to different audiences is recognized, highlighting the constant interaction with interested parties, such as the Undersecretary of Climate Change of MAATE and INAMHI, key to success and positive relationship with the community.

In addition, commemorations of past flood events were held and prevention education was promoted in schools. Educational products such as stories and puppet plays were developed. Likewise, the Storytellers Platform was established, which compiles stories from various people about their experiences and response to flood events. These actions have strengthened the internal and external communication of the Project, involving different segments of the population.

The Project strategy focuses on involving both adults and youth in preparation and prevention against flood threats. By 2022, 44,000 people have been reached, highlighting high female participation. This indicates an effective effort in communication and participation of interested parties.

Regarding training in general, this year a significant strengthening of the capabilities of the INAMHI of Ecuador is planned, with special focus on key areas such as automation and green infrastructure, it seeks to intensify the generation of reports and offer training in the management of stations and technologies.

In addition, a diploma course on disaster risks and climate change was carried out, in virtual mode, aimed at municipal officials from Ecuador and Chile, who are the first to respond to emergencies. The diploma was effective and will be complemented with five knowledge capsules on the SENAPRED Academy platform, allowing anyone to access the online course. This approach expands the scope of disaster risk and climate change communication.

An educational guide is also being developed in collaboration with SENAPRED of Chile, aimed at teachers and focused on decision-making in relation to disaster risks and climate change. This guide differs from others by incorporating specific information on the flood threat and other hydrometeorological events, which contributes to public awareness.

¹⁴ <https://adaptaclima.org/proyecto/>

3.4 Sustainability

3.4.1 Financial risks

In the case of Chile, initiatives related to public management have demonstrated solid long-term sustainability. Together with the Project, the institutions have managed to successfully implement and make meteorological monitoring initiatives their own through the new equipment acquired within the framework of the Project.

In addition, the Project has delivered infrastructure designed considering the effects of climate change, which has made it possible to evaluate its performance and draw valuable lessons. This challenges the belief that a robust design necessarily entails high economic costs, demonstrating its financial viability.

On the other hand, in Ecuador, given less favorable conditions given the insecurity environment, it reveals the need to allocate resources and strengthen key institutions to address Project activities. It is vital to proactively address the budget, involving both national and local governments and reducing dependence on external sources.

Sustainability depends largely on the availability of current budgets to support these initiatives. Governments should allocate their own budget for the new needs to guarantee the continuity of the initiatives, without depending solely on external sources.

3.4.2 Socioeconomic risks

The socioeconomic risks in both countries are reflected in the situation of the population that may be affected by the natural phenomena of climate change.

In the case of Chile, it must be taken into account that the population settled on the slopes of the hills is foreign, therefore, they are unaware of the risks they run when settling in these places. There is a risk that these camps will increase and this population will escape the scope of the Project.

In addition, there are other socioeconomic risks linked to the loss of capabilities. The flight of professionals, especially in regions, can affect the continuity of Projects and training in specific areas such as climate change.

Regarding Ecuador, the link of insecurity as an external risk to the actions implemented by the Adaptaclima Project in this territory has been reflected, for example, in the theft of equipment from 3 hydrometeorological stations acquired by the Project a few months ago.

Additionally, as a result of this latent problem of insecurity, the Project has formally requested from the Adaptation Fund, the change of intervention area in Cerro Gatazo in Esmeraldas, where it was planned to implement the measures to mitigate the risk of landslides (and which already has technical studies). This with the main objective of safeguarding the integrity of the population involved, as well as with the purpose of completing the objectives set in the period of time framed in what was initially proposed in the formulation of the Project and to comply with the protection of the population exposed to the consequences of climate change.

3.4.3 Institutional and governance risks

It is recognized that there is a risk regarding the postponement of risk management and climate change at both national and local levels of government. It is

necessary to collaborate closely with the authorities so that they consider and evaluate the strategies and projects already designed for the medium and long term. In the specific case of Ecuador, it is known that there is an Undersecretariat for Climate Change in the Ministry of the Environment, therefore, it would be valuable to explore the idea of strengthening this team and incorporating activities on risk management.

Likewise, it is identified that the commitment on the part of the government to ensure the continuity of the Project, especially with regard to flood control, could be affected with the end of the Project. Furthermore, linking the Project with territorial instruments, such as the Regional Climate Change Plan and communal plans, would facilitate its sustainability over time.

It is also believed necessary to strengthen the population's preparation through talks and specific response plans for disasters. In the case of Chile, although ONEMI and SENAPRED have offered training, it is perceived that it would be beneficial to have clearer guidelines on how to proceed in emergency situations. Along these same lines, the memory of past floods can be kept alive through the Storytellers, which would make communication more direct and empathetic with civil society.

Finally, technical obstacles related to impact and adaptation chains have been identified, which may mean a risk for the identification of potentially affected people. The potential for Chile to learn from other countries in the region is highlighted, such as Ecuador, where interaction and cooperation with local communities and indigenous groups are stronger.

3.4.4 Environmental risks

Regarding environmental risks, in Chile, the importance of addressing the problem of illegal land seizures more effectively is highlighted, since it entails risks for the safety of the community's inhabitants. Although there is no exact number of homes involved, it has been noted that they are numerous and that the issue persists. Irregular occupations represent a continuous challenge and it appears to be difficult to prevent their recurrence. From a security perspective, it would be desirable to reinforce measures in flood-prone areas and promote awareness about the importance of leaving risk areas.

On the Ecuadorian side, Esmeraldas faces a potential threat due to flooding related to the El Niño phenomenon, which is currently considered a latent risk. Although the maximum intensity of this phenomenon has not yet been reached, climate changes are already having a perceptible impact on the daily lives of the population.

It is highlighted that the risk of flooding is influenced by two main factors: the rise of the tides and the constant precipitation in the region. The combination of these factors could generate a crisis in the city that would significantly affect the inhabitants. In this context, the importance of better management by governments, both at the national and local level, to address this situation is highlighted.

In general, it is considered that the risk of the emergence of diseases with epidemic and pandemic potential, such as COVID-19, must also be taken into account. Therefore, contingency plans must be in place in the event of these situations occurring, as this could generate delays in carrying out activities, as well as the cancellation of in-person events.

4 . Conclusions and recommendations

4.1 Conclusions

- *Project design and formulation*

The Project's intervention is pertinent, since, considering the context of the participating countries, it is highlighted that both countries have problems in common, such as landslides, which make the Project's intervention have regional meaning. It has been identified that the proposed objectives are aligned with the shortcomings of cities, for example, the regulations regarding adaptation to climate change in countries are not usually adapted to the particularities of the local scale; Therefore, within the objectives, it was proposed to improve the specific plans referring to the adaptation of the intervened cities. In the same way, the Project's intervention on meteorological monitoring and protection infrastructure responds to the needs related to adaptation to climate change in Antofagasta and Esmeraldas.

- *Implementation and adaptive management*

The Project is progressing in a moderately satisfactory manner, satisfactory progress is recognized in most objectives, however, in some the progress is very incipient. It is also emphasized that proper management of deadlines is crucial for successful execution, and the importance of adaptability in deadlines due to contextual problems in different countries is recognized, allowing the objectives to be achieved without changing the original design of the Project.

Despite challenges such as the rotation of government personnel at the local level, effective links are established with different actors. In addition to resources, personnel from the institutions of each country are invested for the success and continuous development of the processes, ensuring the future use of tools and products generated, both with local and technological capabilities.

Some challenges in the implementation of the Project are mentioned, such as the lack of definition of roles and burnout due to the intensity of the Project. Tensions have also been mentioned between governments at different levels in Chile and the bureaucracy that arises when requesting permits for activities related to infrastructure. In the case of Ecuador, the main obstacle is the situation of insecurity experienced in the region, this does not allow entry to the areas where intervention was planned and theft of equipment implemented by the Project has been recorded.

- *Planning and inter-institutional coordination and with actors*

The Project acts as an example of governance and coordination between state entities that could be replicated in other areas. In both countries, the coordination between the executing team, state and local entities is rescued; it has been mentioned that with UNDP it has been possible to obtain results more efficiently. The collaboration of SENAPRED and the local SEREMI of the Environment in Chile, and the Prefecture, the Municipality of Esmeraldas, the SGR Esmeraldas and the MAATE Esmeraldas in Ecuador stand out.

- *Outcome achievement progress*

The degree of progress of the Project is being achieved effectively, considering

contextual, regulatory and resource availability aspects. The component related to strengthening the capacities of officials and communities is highlighted, especially the courses offered in conjunction with universities and work carried out with the Storytellers.

On the other hand, in the component related to increasing the resilience of cities, delays have been identified in implementing early warning systems in the case of Antofagasta due to administrative impediments and in the construction of protection infrastructure in Esmeraldas due to the situation of insecurity experienced in the town.

- *Gender and Intercultural Approach*

It is highlighted that the Project has considered a perspective of inclusion from the formulation, considering gender, culturality and age. The participation of women in the workshops provided and in activities that involve local communities is notable. It is also noted that, especially in the Narrators, those involved are mostly women and, in general, they are people from different generations who can share their experience regarding climatic events that occurred in Antofagasta and Esmeraldas from their own perspective, which allows introducing the interculturality factor.

- *Social and environmental safeguards*

The risks identified in the IRAS respond to the reality of the Project, however, it is considered that some risks classified as medium may currently have a greater impact if they occur, especially risks related to changes in public officials. The risk mitigation measures proposed respond to the risks identified prior to the development of the Project. However, new risks have been identified, which are mentioned in the PPR, to which efforts are being dedicated to mitigate that were not planned.

- *Financing and Co-financing*

The financing of the Project comes from AF, this is transferred to CAF and the latter is in charge of direct disbursements for the execution of activities on the ground. Likewise, for some studies related to the Project, within the framework of activities carried out with central governments, financing came from the ministries involved.

Two amendments have been made to the Project Agreement related to disbursement dates. In the last amendment, it is mentioned that disbursements must be made in advance of the execution of the planned activities. Some actors mentioned that there are delays in payments, which, consequently, delays the execution of activities.

- *Monitoring and evaluation*

There is a platform where project progress information, indicators, risk management and the gender equity approach are uploaded. In addition, PPR are generated annually, in which financial progress, objectives and risk management are mainly presented.

Likewise, there are periodic meetings with representatives of CAF, UNDP and government institutions of each country in which the progress of the Project is reviewed, as well as the next steps that will be taken in the planned activities.

- *Sustainability of achievements, replicability and scaling*

Risks that threaten the sustainability of the Project have been identified. Regarding the financial aspect, it is believed that efforts should focus on involving national, regional and local governments to guarantee maintenance and investment in the activities promoted

by the Project.

Regarding socioeconomic risks, in Ecuador, insecurity is a factor that is already affecting the Project, delaying some activities and, in Chile, the economic situation of migrants causes them to set up camps on the slopes of the hills and they may be affected. due to landslides. Regarding institutions and governance, the rotation of public officials is a factor that can delay activities, as well as change the priorities of certain institutions.

Finally, regarding environmental risks, the El Niño phenomenon is a latent risk in Ecuador, and in Chile, a problem of illegal land seizure is already being identified, which can mean a disorderly and informal growth of urbanization and this population. would escape the scope of the Project.

4.2 Recommendations

About the objectives, design and implementation strategy

- Reevaluate the way to continue the Project in the Esmeraldas area, given the circumstances of insecurity that surround the region. This with the main objective of safeguarding the integrity of the population involved, as well as with the purpose of completing the objectives set in the period of time framed in what was initially proposed in the formulation of the Project and to comply with the protection of the population exposed to the consequences of climate change. On the Chilean side, it is recommended to maintain the cities where intervention has been taking place.
- Adjust the deadlines for meeting the objectives, considering the delays presented due to social obstacles and administrative barriers. Considering that the dynamics of obtaining permits and procedures in Chile are already known, these deadlines should be considered within the periods set for each objective. Scale and replicate the Project to areas similar to Antofagasta, while the actions in Ecuador were completed.
- Restructure the budget according to the reality of the pending activities to be carried out. There are adequate financial controls, included in the reports, that allow informed decisions regarding the budget to be made. Likewise, the disbursement procedure must be reviewed, since there have been delays in this action, which is delaying the Project's objectives. The time that financial movements take must be considered, to establish a period in retrospect for the presentation of documents necessary to request the funds.
- In line with recommendations b and c, it is necessary to carry out an analysis of the global conditions under which the Project was approved and the current ones. This will help to propose deadlines and budgets adjusted to the current reality.

About adaptive management

- Carry out a review of the risks that have been identified during the execution of the Project and contrast them with the risks identified during Project planning. In this way, it will be possible to verify if the mitigation measures proposed in the Project planning can respond to the new risks or if these measures have been adapted to the new risks identified.
- As the end of the Project approaches, transfer responsibilities that fit the scope of each government institution to maintain the Project's actions and give it financial and

governance sustainability.

On capacity building, knowledge management and communication

- Maintain a focus on training and continuous learning, considering the continuity of the Project and the exploration of youth-oriented initiatives, such as safety educational programs and recreational activities. Also value the preservation of historical memory and promote intergenerational learning.
- Be proactive in identifying additional needs that may arise throughout the Project and be willing to adjust the approach to address them, taking advantage of available resources and demonstrating flexibility in the face of unexpected challenges and changes.
- Improve formal communications of Project progress. When indicating progress on the indicators, you should mention the activities that have been carried out to achieve this progress. Likewise, it is recommended that a chronology of the budget executed for each activity, as well as the remainder, be included.

About the gender and intercultural approach

- Emphasis should be placed, from now on, on the focus on gender, culture and special needs of the population, to complete the scope of the system.
- Encourage collaboration with civil society, recognizing its positive impact on governance and the dissemination of progress, promoting awareness and education on climate issues. In that sense, maintain the programs in which women and people from vulnerable generations, such as children and the elderly, are involved.
- Prioritize participatory design under transparent technical direction and maintain flexibility in time management to take advantage of external funding opportunities.
- A study must be carried out about the problem of the settlement of camps formed by foreign population on the slopes of the hills of Antofagasta, its consequences and its possible solutions, since they could be affected by floods.

ANNEXES

- ANNEX A. Matrix of Results and Achievements.
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Annex A. Progress Matrix towards Results Analysis

Project Objective: Reduce vulnerability to climate-related flooding, mudflows, and landslides in three coastal cities by integrating a risk-based approach to adaptation, collaboration, and networking.								
Indicator	Reference Level	Level in PPR 1	Level in PPR 2	Medium-term objective	Objective at the end of the Project	Average level and valuation	Qual. of achievement	Rationale for rating
<p>Target Indicator: Number of men and women covered by warning and evacuation signals to respond to floods (Esmeraldas) and mud flows (Antofagasta and Taltal).</p>	<p>Antofagasta= 0 Taltal= 0 Esmeraldas= 0</p>	<p>Antofagasta= 0 Taltal=0 Esmeraldas= 0</p>	<p>Antofagasta 362,000 (approx. 50% women) Taltal = 13,000 (approx. 50% women) Esmeraldas = 161,000 (approx. 50% women)</p>	N.A.	<p>Antofagasta 362,000 (approx., 50% women) Taltal = 13,000 (approx. 50% women) Esmeraldas = 161,000 (approx. 50% women)</p>	<p>The Project has implemented the Early Warning System on Luis Vargas Torres Island, and a Hydrometeorological Viewer at the level of the Esmeraldas River basin, anchored to the national network of INAMHI hydrometeorological stations.</p> <p>In Antofagasta, the SATs have not yet been installed. It is expected that they will cover the entire populations of Antofagasta and Taltal.</p>	MS	<p>The goal has been met for the long-term objective referred to the intervention area in Esmeraldas; In the intervened area of Antofagasta, it is expected to reach the goal in the remainder of the execution.</p>
Outcome 1: Improved plans and green infrastructure reduce vulnerability to flooding, landslides and mudflows in three coastal cities.								
Indicator	Reference Level	Level in PPR 1	Level in PPR 2	Medium-term objective	Objective at the end of the Project	Average level and valuation	Qual. of achievement	Rationale for rating

<p>1.1 Number of plans that incorporate provisions for adaptation to climate change, with a gender perspective.</p>	<p>Stormwater management plan in Antofagasta = 0 Green Infrastructure Plan in Esmeraldas = 0</p>	<p>Stormwater management plan Antofagasta = 0 Green Infrastructure Plan Esmeraldas = 20%</p>	<p>Stormwater management plan Antofagasta = 1 Green Infrastructure Plan Esmeraldas = 1</p>	<p>Stormwater management plan Antofagasta = 1 Green Infrastructure Plan Esmeraldas = 1</p>	<p>Stormwater management plan Antofagasta = 2 Green Infrastructure Plan Esmeraldas = 2</p>	<p>Green Infrastructure Plan (PIV) officially delivered on October 13, 2021. It is a complementary plan to the Land Use and Management Plan (PUGS) and the Territorial Planning Plan (PDOT) of Esmeraldas. Its objective is to constitute an urban planning tool to prepare the city against the impacts of climate risks. It incorporates provisions for adaptation, with a gender focus at the cantonal level. It has a GADM Municipal Ordinance of March 4, 2022. The Antofagasta Rainwater Evacuation and Drainage Master Plan was updated and communicated since June 2022. It has incorporated topics such as urban development, climatic events that have occurred, and climate projections.</p>	<p>HS</p>	<p>The goals for the medium-term period have been met in both work locations. The progress allows us to foresee that the goal for the end of the project will be met.</p>
<p>Indicator</p>	<p>Reference Level</p>	<p>Level in PPR 1</p>	<p>Level in PPR 2</p>	<p>Medium-term objective</p>	<p>Objective at the end of the Project</p>	<p>Average level and valuation</p>	<p>Qual. of achievement</p>	<p>Rationale for rating</p>

1.2 Number of hectares restored/replanted in Esmeraldas.	Esmeraldas = 0	Esmeraldas = 0	Esmeraldas = 0	N.A.	Esmeraldas=40	Currently almost 4 hectares reforested in Esmeraldas. Until December 2023, it is planned to reach 10 hectares. On average there are 800 to 1000 native plants per ha	S	The Project team and its partner the Pontifical Catholic University Esmeraldas headquarters (PUCESE) are executing their agreement for the reforestation and restoration of the 40 hectares in the city of Esmeraldas
Outcome 2: Reduce vulnerability to floods, landslides and mudflows in two coastal cities.								
2.1 Number of physical assets built to withstand conditions resulting from climate variability and change.	Antofagasta = 0 Esmeraldas = 0	Antofagasta = 0 Esmeraldas = 0	Antofagasta = 0 Esmeraldas = 0	1	2	In the Quebrada Bonilla, the alluvial control work is being built, which is not finished, due to delays in the process. In the case of Esmeraldas, it has not been possible to build the physical asset due to social insecurity. The Project has formally supported an extension to the Adaptation Fund.	U	Due to insecurity, the construction of the planned anti-slide measure on Cerro Gatazo, in the city of Esmeraldas, has not been possible so far. In the Antofagasta area, the mid-term goal has not been met.
2.2 Number of men and women protected by improved infrastructure to resist climate change and variability-induced stress.	Antofagasta = 0 Esmeraldas = 0	Antofagasta = 0 Esmeraldas = 0	Antofagasta = 0 Esmeraldas = 0	NA	Antofagasta = 12,840 (approx. 50% women) Esmeraldas = 500 (approx. 50% women)	It has not been possible to build the planned physical asset in any of the intervention areas, which is why it is not possible to count the people protected by this infrastructure.	U	The Programme Proposal does not provide for a mid-term goal; for this Result; but it is estimated that it has not been achieved given its volume and execution time.

						There was a time lag between the design and start-up of the Project, and the socio-economic study of the intervention area did not foresee alerts or recommendations on the issue of insecurity in the neighborhoods of Cerro Gatazo.		
Outcome 3: Improved climate monitoring and means of early warning for the local population.								
Indicator	Reference Level	Level in PPR 1	Level in PPR 2	Medium-term objective	Objective at the end of the Project	Average level and valuation	Qual. of achievement	Rationale for rating
3.1 Number of radars in Esmeraldas and storm detection systems in Antofagasta to monitor precipitation, linked to gender-sensitive early warning systems.	Antofagasta = 0	Antofagasta = 0	Antofagasta = 0	Antofagasta = 1	Antofagasta = 1	In 2022, a storm detection system visualization platform for the north of the country was delivered – in conjunction with the Chilean Meteorological Directorate. To improve monitoring of the Project cities, storm and lightning detection sensors were installed in each of them.	S	The end goal of the Project would be met. However, the gender perspective in development is not mentioned for this part of the result.
3.2 Number of meteorological stations to monitor rainfall affecting cities, linked to gender-sensitive early warning	Antofagasta = 4 Taltal = 1 Esmeraldas = 5	Antofagasta = 4 Taltal = 1 Esmeraldas = 5	Antofagasta = 4 Taltal = 1 Esmeraldas = 13	Antofagasta = 6 Taltal = 2 Esmeraldas = 7	Antofagasta = 6 Taltal = 2 Esmeraldas = 7	In Ecuador, the SAT LUVATO has a station that measures the level of the Esmeraldas River (San Mateo), a station that measures the level of the Tide (APE), and an alarm	MS	The stations that make up the SAT LUVATO are in charge of the GADM Esmeraldas. In Antofagasta the stations have not yet been installed.

systems.						station on Luis Vargas Torres Island, and a monitoring in the ECU911.		
Outcome 4: Improved means to respond to floods, landslides and mudflows.								
Indicator	Reference Level	Level in PPR 1	Level in PPR 2	Medium-term objective	Objective at the end of the Project	Average level and valuation	Qual. of achievement	Rationale for rating
4.1 Number of men and women covered by warning signs, and evacuation, to respond to floods (Esmeraldas) and mud flows (Antofagasta and Taltal)	Number of people: Antofagasta = 0 Taltal = 0 Esmeraldas=0 (floods) Esmeraldas=0 (landslides)	Number of people: Antofagasta = 0 Taltal = 0 Esmeraldas= 0 (floods) Esmeraldas= 0 (landslides)	Number of people: Antofagasta = 0 Taltal = 0 Esmeraldas (floods) =161,000 people (approximately, 50% women)	N.A.	Number of people: Antofagasta = 362,000 (approx. 50% women) Taltal = 13,000 (approx. 50% women) Esmeraldas (floods) = 161,000 (approx. 50% women)	In Esmeraldas, the Luis Vargas Torres Island Early Warning System (SAT) benefits more than 2,500 families (approximately 12,500 people) who live on the island. In addition, the Hydrometeorological viewer generated with INAMHI and operational in 2023 to monitor the entire water basin of the Esmeraldas River, benefits the entire population of the canton (189,504 inhabitants). In the case of Antofagasta, the EWS have not yet been installed, however, it is expected that they will cover the entire	S	The Programme Proposal does not prescribe mid-term goals for these outcomes. The progress in Esmeraldas is recognized, however, it cannot be rated equally in the case of Antofagasta, since SAT has not been installed. However, the evaluation considers that the final goals in both results will be achieved at the current rate of progress. Emphasis should be placed, from now on, on the focus on gender, culture and special needs of the population, to complete the scope of the system.
	4.2 The early warning systems in Antofagasta, Taltal and Luis Vargas Torres Island are gender and culturally sensitive, and consider the special needs of people with disabilities.	Number of early warning systems Antofagasta = 0 Taltal = 0 Luis Vargas Torres Island = 0	Number of early warning systems Antofagasta = 0 Taltal = 0 Luis Vargas Torres Island = 0	Number of early warning systems Antofagasta = 0 Taltal = 0 Luis Vargas Torres Island = 1	N.A.		Three early warning systems take into account gender and cultural issues; and the special needs of people with disabilities.	

						populations of Antofagasta and Taltal.		
Outcome 5: Local governments with the capacity to design and implement adaptation measures.								
Indicator	Reference Level	Level in PPR 1	Level in PPR 2	Medium-term objective	Objective at the end of the Project	Average level and valuation	Qual. of achievement	Rationale for rating
5.1 Number of officials (men and women) of local governments and relevant entities, trained in risk-based adaptation, with a gender perspective in coastal cities.	Antofagasta = 0 Taltal = 0 Esmeraldas = 0 Other coastal cities Chile = 0 Other coastal cities Ecuador = 0	Antofagasta = 0 Taltal = 0 Esmeraldas = 0 Other coastal cities Chile = 0 Other coastal cities Ecuador = 0	Chile = 38 Equator = 32 46% women	N.A.	Cities in Chile = >70 Cities in Ecuador = >30 About 40% will be women	The Project, together with the University of Chile, managed a Higher Diploma in which 32 local and national officials from Ecuador and 38 from Chile were trained. They were instructed on the use and benefit of green infrastructure in coastal cities.	MS	The Programme Proposal does not specify mid-term goals; But the progress to date of the total in Ecuador and the partial in Chile allows us to predict that the final goal will be reached. A new cycle or edition of the diploma must be organized, anticipating and considering the high turnover of responsible technical personnel in local governments.
Outcome 6: Local population and government staff with increased awareness of climate-related risks (floods, landslides, mudflows)								
1.1 Number of men and women who have	Antofagasta = 0 Taltal = 0	Antofagasta = 0	Antofagasta = 16 (38%)	NA	Antofagasta = >30,000	As of the date of the MTE, it is reported that	S	The Programme Proposal does not

<p>participated in awareness-raising activities and events.</p>	<p>Esmeraldas = 0</p>	<p>Taltal = 0 Esmeraldas = 359 (41% women)</p>	<p>women) Taltal = 14(71% women) Esmeraldas = 13 (62% women)</p>		<p>(approx. 50% women) Taltal = >1,000 (approx. 50% women) Esmeraldas = >16,000 (ca., 50% women).</p>	<p>they have participated in socialization activities and events: In Antofagasta 29,389 people (17,074 women and 12,315 men); In Taltal 15,762 people (8,345 women and 7,417 men); In Esmeraldas 44,864 people (22,509 women and 22,355 men).</p>		<p>set out mid-term goals; But the reported figures exceed what was expected, so it is advisable to evaluate and monitor these scopes, in order to establish the impact over time of these activities.</p>
<p>6.2 Number of storytellers (men and women) trained in maintaining cultural memory of climate-related disasters and risks.</p>	<p>Antofagasta = 0 Taltal = 0 Esmeraldas = 0</p>	<p>Antofagasta = 0 Taltal = 0 Esmeraldas = 0</p>	<p>Antofagasta = 16 (38% women) Taltal = 14(71% women) Esmeraldas = 13 (62% women)</p>	<p>NA</p>	<p>Antofagasta = 10 (approx. 50% women) Taltal = 5 (approx. 50% women) Esmeraldas = 10 (approx. 50% women)</p>	<p>Storytellers are citizens trained in maintaining the cultural memory of climate-related disasters and risks. So far there are 8 women and 5 men (13 in total) in Esmeraldas. In Antofagasta, there are 6 women and 10 men who are narrators, and in Taltal there are 10 women and 4 men.</p>	<p>S</p>	<p>The Programme Proposal does not set a goal for the mid-term of the Project. The figures achieved are in the order of 50% of the end-of-project goals.</p>
<p>Outcome 7: Lessons and best practices to reduce vulnerability to climate-related flooding, landslides and mudflows in coastal cities have been shared in the region.</p>								
<p>Indicator</p>	<p>Reference Level</p>	<p>Level in PPR 1</p>	<p>Level in PPR 2</p>	<p>Medium-term objective</p>	<p>Objective at the end of the Project</p>	<p>Average level and valuation</p>	<p>Qualif y of achiev ement</p>	<p>Rationale for rating</p>
<p>7.1 Number of men and women (by nationality) who have participated in events to disseminate</p>	<p>Antofagasta = 0 Taltal = 0 Esmeraldas = 0</p>	<p>Antofagasta = 0 Taltal = 0 Esmeraldas = 0</p>	<p>Antofagasta= 109 (65% women) Taltal = 0</p>	<p>100 people > 50% women</p>	<p>>200 people > 40% women</p>	<p>Through dissemination activities, such as workshops aimed at adults and children, meetings, and through the Storytellers, 109</p>	<p>MS</p>	<p>The medium-term objectives have been achieved, mainly during the second year of execution. It is</p>

<p>lessons and best practices (for example, workshops, exchange visits, seminars)</p>			<p>Esmeraldas = 31 (48% women) Others =75</p>			<p>people have been reached in Antofagasta, but the numbers in Esmeraldas and Taltal are low, with 31 and 0, respectively.</p>		<p>expected that with the lifting of measures against COVID-19, in-person activities will have a greater scope. It is necessary to focus on implementing actions in Taltal.</p>
<p>7.2 Number of visitors per month (annual average) registered in the network of electronic channels of the regional online platform used to disseminate the learnings and best practices of the project.</p>	<p>Visits = 0 Unique visits = 0</p>	<p>Visits = 0 Unique visits 0</p>	<p>Visits = 21,733 Unique visits = 21,654</p>	<p>Visits >2,000 Unique visits >1,600</p>	<p>Visits >4,000 Unique visits >3,200</p>	<p>The AdaptaClima platform is intuitive and presents updated news on the Project's progress. It also has a quarterly newsletter, to which people can subscribe, where the main progress of the Project is published.</p>	<p>HS</p>	<p>To date, it is identified that the objectives have been exceeded by a high percentage. The number of visits amounts to 21,733 per month.</p>

Annex B. Project results qualification table

Ratings of progress toward results:(one grade for each result and for the objective)		
6	Highly satisfactory (HS)	The objective/outcome is expected to meet or exceed all of its goals at the end of the project, without major deficiencies. Progress toward the goal/outcome can be presented as "good practice."
5	Satisfactory (S)	The objective/outcome is expected to achieve most of its goals at the end of the project, with only minor deficiencies.
4	Moderately satisfactory (MS)	The objective/outcome is expected to achieve most of its goals at the end of the project, but with significant gaps.
3	Moderately unsatisfactory (MU)	The objective/outcome is expected to meet its goals at the end of the project with significant deficiencies.
2	Unsatisfactory (U)	The objective/outcome is expected to not achieve the majority of its goals at the end of the project.
1	Highly Unsatisfactory (HU)	The objective/outcome has not achieved its medium-term goals, and is not expected to achieve any of its goals at the end of the project.

Qualifications for project execution and adaptive management:(an overall rating)		
6	Highly satisfactory (HS)	The implementation of the seven components - management arrangements, work planning, financing and co-financing, project-level monitoring and evaluation systems, stakeholder engagement, reporting and communications - is leading to project implementation and adaptive management efficient and effective. The project can be presented as a "good practice".
5	Satisfactory (S)	The implementation of most of the seven components is leading to efficient and effective project implementation and adaptive management, except for a few that are subject to corrective measures.

4	Moderately satisfactory (MS)	The implementation of some of the seven components is leading to efficient and effective project implementation and adaptive management, while some components require corrective measures.
3	Moderately Unsatisfactory (MU)	The implementation of some of the seven components is not leading to efficient and effective implementation and adaptation of the project, and most of the components require corrective measures.
2	Unsatisfactory (U)	The implementation of most of the seven components is not leading to efficient and effective project execution and adaptive management.
1	Highly Unsatisfactory (HU)	The application of none of the seven components is leading to efficient and effective project execution and adaptive management.

Sustainability Ratings: (an overall rating)		
4	Likely (L)	Negligible risks to sustainability, as key results are on track to be achieved at project closure and are expected to continue for the foreseeable future
3	Moderately likely (ML)	Moderate risks, but at least some results are expected to hold due to progress in mid-term review results
2	Moderately unlikely (MU)	Significant risk that key results will not continue after project closure, although some products and activities should continue
1	Unlikely (U)	Serious risks that project results and key deliverables will not be sustained

Annex C. Evaluation Matrix

Evaluation questions	Indicators	Sources	Methodology
<p>Project Strategy and Design: To what extent is the Project strategy relevant to the priorities of the country and the LAC Region, for the appropriation by the State and the population; and is it the best path to the expected results?</p>			
<ul style="list-style-type: none"> - Is the design of the Project and its components relevant to the problems and risks presented by the intervention area? - Will the results of the Project be important for their application to other vulnerable areas of the country and the region? Does the Project adjust to the priorities and national development plans of the country's sector, or of the participating countries in the area of risk management? - Is the implementation strategy relevant to achieving the expected results? - Have lessons from other similar projects been incorporated into the project design? - Does the Project address the country's development priorities, plans and commitments? Is there an appropriation process by the public and private sectors and the population? - Have the perspectives of those potentially affected by Project decisions been taken into account? Who and how could the results be affected? - - What other actors could have 	<ul style="list-style-type: none"> - Established relationships with the beneficiary population. - Level of coherence between the project design and the execution approach. - Breadth and coverage of specific activities to obtain results. - Quality of risk prevention and mitigation strategies. - Level of progress of the goals related to the gender approach in the project results framework - Frequency of positive mentions by interviewees about the benefits and advantages of the Project. 	<ul style="list-style-type: none"> - Programme Proposal, Periodic Progress Reports (PPR) - Minutes of coordination meetings and decisions. - National and sub-national policies, strategies and sanctioned norms - Interviews with responsible officials at CAF and UNDP and executing technicians. - Opinions of government officials at the national and subnational level; and participating partner entities. - References on the website of similar situations and projects in LAC and in the country. - Other data and indirect information collected during the Evaluation Mission and preparation of reports. (State Plan to Confront Climate Change, National Environmental Strategy, Economic and Social Development Plan to 2030. 	<ul style="list-style-type: none"> - Comparative analysis of the Project documents among themselves, and in relation to national and regional policies, strategies, plans and projects. - Analysis of coherence and consistency of the components and planned results, with the activities developed and the progress to date. - Specific questions in the semi-structured interviews by type of actor; systematization of responses, and analysis of consistency or differences in perceptions and opinions by groups of actors and evaluation topics.

Evaluation questions	Indicators	Sources	Methodology
<p>contributed information or resources to the Project design and structuring process?</p> <p>- Are gender issues included in the Project document based on the territory of intervention? Has the impact and participation of women and their grassroots organizations in the Project activities been planned?</p> <p>- Are there other important areas of concern to recommend improvements to the Project design?</p>			
<p>Outcome achievement progress: Measurement and comments on the progress process and achievements so far, with a view to the objective and expected results of the Project.</p>			
<p>- Are the objectives, components, and outcomes clear, practical, and feasible within your time frame?</p> <p>- Are the goals and indicators of the Project's logical framework consistent with the SMART standard?</p> <p>- To what extent have the expected results and objectives of the Project been achieved so far?</p> <p>- Has progress been measured according to the AF monitoring tool and in reference to the baseline and its update?</p> <p>- Have barriers and other factors limiting progress toward expected results been identified?</p>	<p>- Level and percentage of progress towards results estimated by result, activity and finished products.</p> <p>- Degree of compliance with SMART standards in the design of indicators.</p> <p>- Estimate of delays and delays due to the health emergency and estimate of its impact on the progress of the Project.</p>	<p>- Programme Proposal, Periodic Progress Reports (PPR)</p> <p>- Review of minutes and internal documents of modifications of indicators, results and products.</p> <p>- Responses on the topic in the interviews with officials and directors of the Project (CAF, UNDP, and technical team).</p>	<p>- Comparative analysis of the Project documents among themselves, and in relation to national and regional policies, strategies, plans and projects.</p> <p>- Analysis of coherence and consistency of the components and planned results, with the activities developed and the progress to date.</p> <p>- Questions in interviews, by type of actor; systematization of responses, and analysis of consistency or differences in perceptions and opinions by groups of actors and evaluation topics.</p> <p>- Comparative analysis of the basic indicators of PA in the baseline, with that carried out before the MTE.</p>

Evaluation questions	Indicators	Sources	Methodology
<ul style="list-style-type: none"> - Are there delays in implementation that require decisive action? - Have questions about these topics been included in the interviews, and recommendations for adaptive action obtained? 			
<p>Project execution and adaptive management: Effectiveness and efficiency in the technical and administrative management of the Project, and the ability to adapt to the necessary changes.</p>			
<ul style="list-style-type: none"> - Is the Project being executed effectively and profitably in terms of the impact it is achieving and the profitability of its interventions? - To what extent do monitoring and evaluation systems, reports and internal and external communications support Project execution? Is an internal monitoring and evaluation (M&E) system in operation? - To what extent has progress been made in the application of social, territorial, environmental, and gender equity management measures? - Have there been changes in the overall risk rating of the Project and/or in the types of risks identified in the Project approval phase by the general director? - Is the Project management effective in terms of the results it is obtaining? Are changes being made to improve it? - Are the responsibilities and lines of internal communication clear for articulating administrative, financial and 	<ul style="list-style-type: none"> - Incidence of adaptive measures identified by the executors since the beginning of the Project. - Existence of mechanisms and systems for monitoring technical and administrative actions. - Progress and levels of participation of interested parties in the Project execution process. - Social, territorial, environmental, and gender equity management measures introduced or adapted to the Project beyond the Complete Proposal Document. - Minutes of steering committee or inter-institutional coordination meetings. - Changes recorded in the qualification in the PIRs and other periodic reports, and in the risks 	<ul style="list-style-type: none"> - Programme Proposal, Periodic Progress Reports (PPR) - Review of minutes and internal documents of modifications of indicators, results and products. - Responses on the topic in the interviews with officials and directors of the Project (CAF, UNDP, and technical team). 	<ul style="list-style-type: none"> - Comparative analysis of the Project documents among themselves, and in relation to national and regional policies, strategies, plans and projects. - Analysis of coherence and consistency of the components and planned results, with the activities developed and the progress to date according to the PIR and other reports. - Questions in interviews, by type of actor; systematization of responses, and analysis of consistency or differences in perceptions and opinions by groups of actors and evaluation topics.

Evaluation questions	Indicators	Sources	Methodology
technical issues? - Is decision-making by the Project governance levels effective, timely and clear?	foreseen in the Programme Proposal.		
- Regarding efficiency in the use of technical, human and financial resources, is there adequate and timely management of resources? Is the information adequate to make the necessary decisions in the face of difficulties or barriers?	<ul style="list-style-type: none"> - Progress in physical and financial execution indicators. - Evidence of problems in financial execution and co-financing. 	<ul style="list-style-type: none"> - Budget Complete Proposal Document; Initiation report, Periodic progress reports (PIR). - Review of minutes and internal documents of modifications of indicators, results and products. - Responses on the topic in the interviews with officials and directors of the Project (CAF, UNDP, and technical team). 	<ul style="list-style-type: none"> - Analysis of coherence and consistency of the components and planned results, with the activities developed and the progress to date according to the PIR and other reports. - Questions in interviews, by type of actor; systematization of responses, and analysis of consistency or differences in perceptions and opinions by groups of actors and evaluation topics.
Medium- and long-term sustainability: Evaluation of the risks financial, institutional, socioeconomic and environmental, to maintain the results of the Project.			
- Financial sustainability	<ul style="list-style-type: none"> - Analysis of post-project financing prospects or commitments (compliance with co-financing, spending capacity, involvement of private financing) 	<ul style="list-style-type: none"> - Official documents, financial and economic reports. - Interviews with representatives of the public and private sector. 	<ul style="list-style-type: none"> - Analysis of convergence and coincidence of opinions and documents between officials and the population. - Comparative analysis of responses in interviews, by categories of interviewee
- Geo-physical sustainability (disaster risks and climate security), and environmental.	<ul style="list-style-type: none"> - Disaster forecasting and weather forecasts and climate scenarios. - Opinions linked to the topic 	<ul style="list-style-type: none"> - Climate diagnostics. - Environmental strategies and national commitments on climate change. 	<ul style="list-style-type: none"> - Analysis of convergence and coincidence of opinions and documents between officials and the population. - Comparative analysis of responses in interviews, by categories of interviewee.

Evaluation questions	Indicators	Sources	Methodology
Scaling/Replicability Potential to manage the knowledge that is being achieved; and to disseminate achievements and results.			
<ul style="list-style-type: none"> - Lessons learned to date 	<ul style="list-style-type: none"> - Record of adaptive measures and innovative adaptive changes in the Project. 	<ul style="list-style-type: none"> - Project Documents (financial and economic reports of the Project; minutes of meetings and periodic reports - Interviews with agencies and project executors. 	<ul style="list-style-type: none"> - Analysis of convergence and coincidence of opinions and documents between officials and the population. - Comparative analysis of responses in interviews, by categories of interviewee
<ul style="list-style-type: none"> - Prospects to date for escalation of the experience; and for its replication in other regions or countries. 	<ul style="list-style-type: none"> - Records and opinions on potential for scaling and replication 	<ul style="list-style-type: none"> - Project Documents (meeting minutes and periodic reports) - Interviews with CAF and UNDP 	<ul style="list-style-type: none"> - Analysis of convergence and coincidence of opinions and documents between CAF and UNDP officials.

Annex D. Code of conduct for intermediate exam evaluators/consultants¹⁵

Independent Evaluator Consulting Team:

1. It must present complete and fair information in its assessment of strengths and weaknesses, so that decisions or actions taken are well founded.
2. You must disclose the full set of evaluation results along with information about its limitations and make it accessible to all those affected by the evaluation with an express legal right to receive the results.
3. They must protect the anonymity and confidentiality of individual informants. They must give as much notice as possible, minimize time demands, and respect people's right not to participate. Evaluators must respect the right of individuals to provide information confidentially, and must ensure that sensitive information cannot be traced back to its source. Evaluators are not expected to evaluate people, and must balance the evaluation of management functions with this general principle.
4. Signs of violations are sometimes discovered during evaluations. These cases should be reported discreetly to the appropriate investigative body. Assessors should consult with other relevant oversight entities when there is any doubt about whether and how to report problems.
5. They must be sensitive to beliefs, manners and customs and act with integrity and honesty in their relationships with all interested parties. In line with the UN Universal Declaration of Human Rights, evaluators must be sensitive to and address issues of discrimination and gender equality. They must avoid offending the dignity and self-esteem of the people with whom they come into contact in the course of the evaluation. Knowing that evaluation may negatively affect the interests of some stakeholders, evaluators must conduct the evaluation and communicate its purpose and results in a way that clearly respects the dignity and self-esteem of stakeholders.
6. They are responsible for their performance and their product(s). They are responsible for the clear, precise and fair written and/or oral presentation of the study limitations, results and recommendations.
7. It should reflect sound accounting procedures and be prudent in the use of evaluation resources.
8. It must guarantee the maintenance of independence of judgment and the independent presentation of the conclusions and recommendations of the evaluation.
9. They must confirm that they have not participated in the design, execution or advice of the evaluated project.

MTE Consulting Agreement Form

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

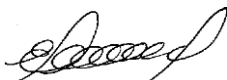
Consultant name: Eduardo Durand, Jaime Parada, Edison Calderón

Name of consulting organization (if applicable): Deuman

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

Signing in Santiago, Chile on September 19, 2023.

Firms:



Eduardo Durand



Jaime Parada



Edison Calderon

¹⁵<http://www.unevaluation.org/document/detail/100>

Annex F. Interview questionnaire used

The interviews will be formulated based on the scope and parameters of the evaluation, seeking to obtain findings and responses that correspond to the purposes of the survey and the OECD recommendations in this regard. The following questions will be adapted in their format to the relevance to the interviewee and their role in the Project, including specific extensions according to the criteria of the evaluation team, according to the following classification:

- A. Questionnaire for CAF and UNDP officials linked to the Project
- B. Questionnaire to the Project technical team
- C. Questionnaire for representatives of partner or allied entities.
- D. Questionnaire for central and sectoral government officials linked to the Project implementation problem
- E. Questionnaire for other interested parties, and direct and indirect beneficiaries

Interviewee Category					GUIDING QUESTIONS
a	b	c	d	e	Introduction and general opening questions
					[Introduction of the interviewers, thanks for their willingness; purpose of the interview and evaluation; name, contact and position of the interviewee] [Confidentiality and ethics in the treatment of the information provided; authorization to record the session or take notes] [Length of the interview and possible alternation of questions with other interviewers]
					1. What is your current relationship, or your role and functions, with respect to the execution of the Project?
					2. How familiar are you with the Project and its objectives? How much do you know about its design, formulation and implementation?
About the design and formulation of the Project					
					3. Did you participate in the design of the Project and the formulation of the execution strategy?
					4. What do you think, in general, about the design of the Project, its objectives and expected results?
					5. Would you say that the Project has been designed on a participatory basis for the actors and beneficiaries involved? Were the perspectives of those affected, those involved, and resources considered during Project design? How were human rights issues addressed with local populations in that process?
					6. How does the Project support national and subnational policies?
					7. Were gender issues addressed in the territory, such as the impact on gender equality and women's participation in the project? Do you think the gender issue has been appropriately considered in the design of the Project?
					8. If the Project could be designed again, what changes would you make or what provisions would you include for its best result?
Outcome achievement progress					
					9. What do you think is the level of progress recorded within the Project? Do you consider that the progress so far will allow the projected goals and beneficial impacts to be achieved in the remainder of the Project's execution?
					10. What aspects of the Project have been successful so far? How can the achievements achieved be further expanded?
					11. What are the main barriers or problems that prevent or limit the achievement of the intended results?

					12. How do the basic indicators of the Adaptation Fund in the baseline compare with those carried out so far? What conclusions can be drawn when analyzing these advances in relation to the Project objectives?
					13. Do you consider that the indicators and objectives of the Project's logical framework are SMART (specific, measurable, achievable, relevant and limited in time)? Do you have any suggestions for specific modifications in this regard?
About Project execution and adaptive management					
					14. Have it been necessary to make changes or amendments to the Programme Proposal, operational plans and budgets to adapt to unforeseen situations? Have effective changes been made for greater clarity in roles and responsibilities, lines of communication and information, and decision making in a transparent and timely manner?
					15. To what extent has the Project been affected in its technical and operational implementation by Covid 19? What measures were adopted?
					16. How do you evaluate, in general, the effectiveness of Project management? Do you identify areas for improvement?
					17. Do you believe that the Project has convened and worked with all relevant actors? Do you feel that the Project has been understood and the interest of the actors has been aroused?
					18. Do you consider that a balance of gender participation has been achieved within the Project staff as well as in the participation in the different events held? What measures have been taken to ensure gender balance in Project management?
					19. What monitoring and evaluation systems have been used to monitor Project activities? Is the financial progress of the Project and its consistency with the physical and technical progress periodically reviewed? Are sufficient technical and financial resources allocated for the monitoring and evaluation of the Project? To what extent have gender issues been incorporated into monitoring systems? Do you think improvements are required in the decision-making process?
					20. How do you perceive CAF's support in the Project execution process? Do you have any suggestions regarding this?
					21. How do you perceive the role of UNDP and the Project technical team in the execution process? Do you have any suggestions regarding this?
					22. Do stakeholders and the government actively support the Project objectives? Do they have a role in decision making? Are there social, cultural or religious limitations for the participation or inclusion of gender, youth or other groups?
					23. Does the Project have regular and timely communication systems or mechanisms that allow interested parties to learn about the results and activities of the Project, and encourage their commitment to the sustainability of the results?
					24. Are training activities carried out or knowledge products developed?
					25. Are there public means of communication about the progress and expected impact of the Project? (dissemination on the web or other media, population awareness campaigns, and others)
					26. How have the Project changes been communicated from the Coordination, and how have they been shared with CAF, UNDP, and government actors, especially the focal point of the Adaptation Fund?
					27. Are the Adaptation Fund reporting requirements met? In case of poorly rated PPR (Project Preparation Plan), how has the situation been addressed?
					28. How have the lessons learned from the adaptive management process been documented? Have these lessons been shared with and internalized by key partners?
Sustainability					
					29. How do you perceive the future sustainability of the results and impact of the Project achieved to date?
					30. What are the main risks for the continuity of the Project? Are they linked to the Project's own activities and management or are they external factors?

					31. Are agents (individual, government or civil society) who are capable of promoting the sustainability of the Project being involved?
					32. What changes or modifications do you estimate would be favorable to the sustainability of the Project, including legal, financial, institutional, economic, environmental or social provisions in the short, medium and long term?
					33. What lessons learned, from your personal point of view, do you think are derived from the execution of the Project to date?

Annex G. Schedule of MTE Activities

MTE Activities Schedule

Activities	Start	End	Start	Month 1	Month 2	Month 3	Month 4
			may.	jun.	Jul.	Aug.	Sep.
Stage 0: Planning							
Contract signing	9-May-23	9-May-23					
Kick Off Meeting	15-May-23	15-May-23					
Stage 1: Initial work report							
Review of Key Documents	17-May-23	23-May-23					
Structuring Objectives and Methodology	24-May-23	26-May-23					
STKH ready review	29-May-23	31-May-23					
Evaluation Questionnaires	29-May-23	31-May-23					
Preparation of the Initial Work Report	17-May-23	9-Jun-23					
E1: Delivery of the Initial Work Report	7-Jun-23	9-Jun-23					
Raising comments	12-Jun-23	15-Jun-23					
Final delivery of E1	16-Jun-23	16-Jun-23					
Stage 2: MTE Draft							
Review of evaluation criteria	12-Jun-23	20-Jun-23					
Interviews	19-Jun-23	23-Aug-23					
Field Mission to Antofagasta/Taltal	3-Jul-23	7-Jul-23					
Preliminary evaluation	17-Jul-23	4-Aug-23					
Presentation Meeting	16-Aug-23	16-Aug-23					
E2: MTE Draft	16-Aug-23	12-Set-23					
Stage 3: Final report							
Summary of evaluation by criteria	12-Set-23	16-Set-23					
Annexes	18-Set-23	22-Set-23					
recommendations	18-Set-23	22-Set-23					
E3: English final report	19-Set-23	23-Set-23					
Final presentation	19-Set-23	23-Set-23					

Schedule of Activities of the field mission in Chile

Hour	Monday	Tuesday	Wednesday	Thursday	Friday	
	3	4	5	6	7	
08:00 - 09:00		STG - ANF flight	8:30 Initial meeting	8:30 - 9:30 Daimo Villegas Municipal Administrator of Taltal	8:30 - 9:30 Marcela Astudillo (MOP) General Director of Water	
09:00 - 10:00			Anahí Encina Coordinator of the project			
10:00 - 11:00		Transfers	Visit Antofagasta	10:30 - 11:30 Jeanette Rodríguez Women's table	10:00 - 11:00 Gabriela Carrasco (MOP) Director of Hydraulic Works	
11:00 - 12:00						
12:00 - 13:00		12:00 - 13:00 María Salva - Women's table			Lunch	11:30 - 12:30 Elisa Cuturrufo Tax Inspector - DOH
13:00 - 14:00	Lunch	Lunch	Lunch	Transfer to Antofagasta (3.5 hours)	Lunch	
14:00 - 15:00						
15:00 - 16:00	15:00 - 16:00 Jenny Mager Head of the Office of Climate Change MMA		Transfer to Taltal (3.5 hours)			15:00 - 16:00 Ricardo Munizaga - Regional Director Lorena Valdebenito - Professor of Development and Management (SENAPRED)
16:00 - 17:00						
17:00 - 18:00		17:00 - 18:00 Hrvoj Buljan (MOP) Former Director of Hydraulic Works				
18:00 - 19:00					Christian Miranda Operations Directorate from Antofagasta	
20:00 - 21:00					Flight ANF - SCL	

Annex H. List of people interviewed

People interviewed in Chile

Sector	Entity	Name	Post	City
UGP	AdaptaClima Project	Anahi Encina	Chile Project Coordinator	Antofagasta
Government	Ministry of Environment	Jenny Mager	Head of the Climate Change Office	Santiago
		Priscilla Ulloa	Climate Change Specialist	Santiago
	Ministry of Public Works	Carlos Astudillo	General Director of Water	Antofagasta
		Gabriela Carrasco	Director of Hydraulic Works	Antofagasta
		Hrvoj Buljan	Former Director of Hydraulic Works	Antofagasta
		Evelyne Medel	Climate Change and Environment Coordinator	Santiago
Local leaders	Women's Table (Taltal)	Jeanette Rodriguez	Representative of the Women's Table	Taltal
	Women's Table (Antofagasta)	Maria Salva	Representative of the Women's Table	Antofagasta
Project Partners	Hydraulic Works Management	Elisa Cuturrufo	Tax Inspector	Antofagasta
	SERNAGEOMIN	Leonardo Espinoza	Geologist – Unit. Technical and Emergencies.	Santiago
	SENAPRED	Ricardo Munizaga	Regional Director ONEMI Antofagasta	Antofagasta
		Lorena Valdebenito	Development and Management Professional	Antofagasta
	Municipality	Daimo Villegas	Municipal Administrator	Taltal
		Christian Miranda	Operations Management	Antofagasta

People interviewed in Ecuador

Sector	Entity	Name	Post	City
Executing team	UNDP	Nury Bermudez	Risk Management Officer	Quito
	AdaptaClima Project	Veronica Rios	Ecuador Project Coordinator	Esmeraldas
		Juan Monteros	Monitoring and Evaluation Specialist	Quito
		Vanessa Gomez	Communication and Digital Media Specialist	Quito
Government	Ministry of Environment, Water and Ecological Transition (MAAE)	Karina Barrera	Undersecretary of Climate Change	Quito
		Diego Quisphe	Director of Adaptation to Climate Change	Quito
		Pablo Caza	Climate Change Adaptation Specialist	Quito
		Ines Arias	Former Director of Adaptation to Climate Change	Quito
Project partners	National Institute of Meteorology and Hydrology (INAMHI)	Bolivar Erazo	Executive Director	Quito
		Vladimir Arreaga	Director of hydrometeorological forecasts and alerts	Quito
		Sebastian Bolaños	Director of the national observation network	Quito
	Municipal Decentralized Autonomous Government of Esmeraldas	Betto Estupiñan	Director of Risk Management	Esmeraldas
		Willian Palacios	Former Director of Planning	Esmeraldas
Pontifical Catholic University of Ecuador – Esmeraldas Headquarters	Karla Solis	Responsible of Reforestation project in the city of Esmeraldas	Esmeraldas	
Local Leaders	Emerald Storytellers Initiative	Flor Tigasi	Narrator	Esmeraldas
	Luis Vargas Torres Island Community Committee	Exon Bone	President	Esmeraldas

Annex I. List of reviewed documents

1. Minutes of Steering Committee Meetings
2. Minutes of Technical Committee Meetings
3. Cooperation agreement between the Andean Development Corporation and the United Nations Development Program
4. Annex 14. Compliance with the Adaptation Fund's Environmental and Social Policy and Gender Policy
5. Annex 15. Environmental and Social Management Plan, Grievance Mechanism and Monitoring, Evaluation and Oversight Program
6. Annual Work Plan Ecuador 2019/2020
7. Annual Work Plan Ecuador 2021/2022
8. Amendment no. 1 to the cooperation agreement between the Andean Development Corporation (CAF) and the United Nations Development Program (UNDP)
9. Amendment no. 2 to the cooperation agreement between the Andean Development Corporation (CAF) and the United Nations Development Program (UNDP)
10. National Climate Change Strategy of Ecuador
11. Initiation Workshops Report “Reducing climate vulnerability and flood risk in coastal urban and semi urban areas in cities in Latin America (Chile, Ecuador)”
12. National Climate Change Action Plan 2017 – 2022 (Chile)
13. Procurement Plan 2022
14. National Plan for Adaptation to Climate Change of Ecuador (2023-2027)
15. Annual Operating Plan – Year 2022
16. PPR1 and PPR2
17. First Nationally Determined Contribution to the Paris Agreement under the United Nations Framework Convention on Climate Change
18. Complete Proposal Document
19. Regional Project/Programme Proposal (AF)

Annex J. Aide Memoir Rethinking of the Field Mission in Ecuador for the MTE of the Project 'Reduction of Climate Vulnerability and Flood Risk in Coastal Urban and Semi-urban Areas cities in Latin America'

Aide Memoir

Date: July 27, 2023

Affair: Rethinking the Field Mission in Ecuador for the MTE of the Project 'Reduction of Climate Vulnerability and Flood Risk in Coastal Urban and Semi-urban Areas cities in Latin America'

1. Background

The field mission, planned in the Project in question to be carried out in Ecuador, included a set of interviews with local government officials, civil society actors, and the organized population of the area; as well as visits to Project intervention sites included in the province and city of Esmeraldas, in the north of the country. On the occasion of the planned visit, face-to-face interviews were scheduled that, in case of difficulties, could be carried out virtually.

According to the MTE Inception Report, delivered by Deuman, and approved by CAF, 20 interviews would be carried out in Ecuador: 10 of them in Quito, already carried out, with actors linked to the Project; and 10 of them pending in the city of Esmeraldas, including civil society actors and beneficiaries of actions in places at risk of flooding or landslides. Additionally, the possibility was considered, depending on accessibility, security conditions, and possibilities of consultation – of visits to the intervention sites.

2. Current situation

The interviews to be carried out with people who reside in the city of Esmeralda or its peripheral neighborhoods have not been carried out so far, pending conditions that allow safe travel and presence of UNDP and DEUMAN personnel; and with equally safe participation of the people to be interviewed.

However, the security situations that gave rise to these precautions and waits, which were expected to be temporary, have not only not been overcome, but have recently worsened to the point of constituting a serious threat to the internal peace of the province, and even the country itself. The current situation is summarized in:

- Serious incidents of violence and generalized crime, which are due to multiple and complex situations, which are centered in an almost unmanageable way in the Province of Esmeraldas, and which also reach the areas of Guayaquil and Manta.
- National and local government responses that include emergency measures such as curfews, exceptional presence of armed forces, successive Executive Decrees repeatedly declaring exceptional conditions, and local measures restricting movement and working hours.
- New local officials, relatively recently elected and little or not at all familiar with the Project, who require contacting previous officials who can give their voluntary opinion on the Project.
- Generalized citizen instability regarding their civil and family life, fear and threats to their leaders and workers in local services.

For information purposes about these events, some of the numerous references on the web about the situation described are indicated below, with national and international information from various sources. The various points of view of these sources coincide in pointing out the seriousness of the situation with expressions such as:

".. Esmeraldas, a province on the northern coast of Ecuador bordering Colombia, seems like a 'lost territory' where the State does not have control and where even law enforcement 'cannot enter' certain areas, according to the advisor. in security matters Carolina Andrade.

"...In that jurisdiction 'the respective measures have not been taken in time' and certain spaces have been allowed to be controlled by organized crime gangs and criminal groups'..."

"...Closed premises, work days until 2:00 p.m., or fear of going to school are components that affect the mental health of one of the poorest provinces in the country. Parents do not want to send their children to school, merchants close their businesses before dark and, from the Mayor's Office, they have ordered that the working day ends at 2:00 p.m.'

"...This is how Esmeraldas lives, or at least that's how it did on October 19, 2022, after news circulated about a possible confrontation between narco-criminal gangs. And although it did not happen, the fear of the citizens, the distrust in the authorities and a phenomenon that is gaining strength was evident: collective psychosis. This means that the population lives in a constant state of fear and uncertainty, which causes damage to mental health, such as anxiety, insomnia and depression."

Some links to publications that include these expressions are:

- <https://es-us.noticias.yahoo.com/3-claves-entender-ola-violencia-185324683.html>
- <https://cnnespanol.cnn.com/2023/07/26/guerra-pandillas-carceles-calles-violencia-ecuador-trax/>
- https://www.swissinfo.ch/spa/ecuador-violencia_esmeraldas--una-joya-de-ecuador-sumida-en-el-caos-por-la-violencia-y-el-abandono/48689404
- <https://elpais.com/internacional/2023-05-08/la-vida-se-apaga-en-esmeraldas-el-blanco-del-crimen-organizado-en-ecuador.html>
- <https://www.elpais.cr/2022/10/21/ola-de-violencia-sacude-a-esmeraldas-ecuador-sin-soluciones-a-la-vista/>
- <https://www.lahora.com.ec/pais/esmeraldas-entre-la-extrema-pobreza-la-violencia-y-el-panico-colectivo/>
- <https://www.infobae.com/america/america-latina/2023/07/27/violencia-en-ecuador-liberaron-a-17-trabajorios-penitenciarios-que-fueron-secuestrados-por-presos/>
- <https://www.nodal.am/2023/07/ecuador-enfrentamientos-en-las-carceles-entre-bandas-armadas-dejan-un-saldo-de-18-muertos-y-se-registran-ataques-in-esmeraldas-and-guayaquil/>

3. Decisions and actions to take.

As a result of the situation described, various meetings and consultations have been held between the responsible officials at CAF, UNDP in coordination with Deuman, to continue the execution of the MTE of the Project with a minimum of impact on the quality and comprehensiveness of the process. of the MTE, and with maximum security for all those involved

in it; as well as the convenience of presenting this Aide Memoire to duly inform the Adaptation Fund of the measures taken and their justification given the circumstances.

The agreements on the measures include the following:

- Declare the inconvenience, for reasons of security and viability, of making in-person visits to the Project implementation sites in the Province of Esmeraldas.
- Formulate and urgently submit for approval a contingency plan (attached to this document) that includes dates and details on alternative ways of conducting the pending interviews, and ways of obtaining indirect evidence of the physical scope of the interventions and their quality of work. execution.
- Proceed to carry out virtual interviews as soon as possible, using the internet or telephone, with maximum discretion and security for the interviewees.
- Verify and take measures to prevent any delay suffered from affecting the approved calendar for the MTE.
- Communicate, through the CAF, to the donor (AF) about the measures taken and their justification.

ANNEXES:

- A. Contingency Plan for the Evaluation Mission in Ecuador (Esmeraldas)**
- B. List and content of the Executive Decrees of the Government of Ecuador**

Annex A. Contingency Plan for the continuity of the Evaluation in Ecuador (Esmeraldas)

The Mid-Term Evaluation of the Chile – Ecuador Regional Project “Reduction of climate vulnerability and flood risk in urban and semi-urban coastal areas in Latin American cities” has been carried out through face-to-face interviews in the cities of Santiago and Quito. While for the cities of Antofagasta and Esmeraldas, field visits were planned to interview actors involved in the development of the Project, community leaders and intervention sites with Project infrastructure.

The visit to Antofagasta was carried out normally between July 4 and 7, however, due to the circumstances of insecurity described in the Aide Memoir, the decision was made not to carry out the visit to Esmeraldas.

The case of Ecuador

The actors located in the city of Quito have already been interviewed between the dates of June 23 to July 7, in some cases the interviews have been in person, while, in others, virtually. Likewise, an interview was conducted in the city of Esmeraldas via virtual means, with the Project Coordinator in the country, Verónica Ríos. Table 1 shows the names of the actors, as well as the institution to which they belong and the means by which the interview was carried out.

Table 1. Actors who have already been interviewed for the MTE of the project in Ecuador

No.	Institution	Actor	Post	Mean
1	P-AC	Juan Monteros	Monitoring and Evaluation Specialist	Virtual
2	P-AC	Vanessa Gomez	Communication and Digital Media Specialist	Virtual
3	MAAE	Karina Barrera	Undersecretary of Climate Change	In person
4	MAAE	Diego Quisphe	Director of Adaptation to Climate Change	Virtual
5	MAAE	Pablo Caza	Climate Change Adaptation Specialist	Virtual
6	INAMHI	Bolivar Erazo	Executive Director	Virtual
7	INAMHI	Vladimir Arreaga	Director of hydrometeorological forecasts and alerts	Virtual
8	INAMHI	Sebastian Bolaños	Director of the national observation network	Virtual
9	MAAE	Ines Arias	Former Director of Adaptation to Climate Change	Virtual
10	UNDP	Nury Bermudez	Risk Management Officer	Virtual
eleven	AdaptaClima Project	Veronica Rios	Project Coordinator - Ecuador	Virtual

Due to the insecurity situation that exists in Esmeraldas, actions have been planned to develop the pending interviews. It is proposed that the interviews that were going to be carried out in person during a visit to Esmeraldas on the dates of August 2 to 4, be carried out virtually

and by telephone on the days of August 7 to 10.

For the actors involved in the execution of the Project, it is proposed to conduct the interviews virtually, through the Google Meets platform. For this, an email will be sent to the actors with the proposed date and time to coincide with a time suitable for all parties. These meetings will then be scheduled and will take place on the agreed date and time. Below, Table 2 shows the proposed schedule for conducting these interviews.

Table 2. Schedule of interviews with actors involved in the execution of the project in Esmeraldas.

Days/Time	Monday 7	Tuesday 8	Wednesday 9	Thursday 10
09:30 - 10:30			Willian Palacios Former Director of Planning-GAD-ME	Tigasi Flower Emerald Narrator
11:30 - 12:30			Lucia Sosa Former Mayor of Esmeraldas	Exon Bone President NGO-CCI-LVT
15:00 - 16:00		Betto Estupiñán Management Director of Risks-GAD-ME		
17:00 - 18:00	Ana Arevalo Coordinator Esmeraldas-SNGR			

On the other hand, with respect to community leaders of the Project, it is proposed that their interviews be carried out by telephone, of short duration (approximately 20 minutes), and during the days of August 7 to 10. A prior call will be made to coordinate the time when they have time available to carry out the interviews and schedule them accordingly. In Table 3, the community leaders to be interviewed are specified.

Table 3. Beneficiary actors of the project in Esmeraldas.

Name	Location
Jerome Coronel	Northern Commonwealth
Jose Ortiz	November 20 neighborhood
Mery Montedioca	Northern Commonwealth

It is expected that, through these actions, the MTE can conclude its activities appropriately and collect all relevant opinions to qualify the progress of the Project.

Annex B. List and relevant content of the Executive Decrees recently issued by the Government of Ecuador

Regulations	Description
Executive Decree No. 588	<p>Declaration of state of exception, identification of the facts, cause, justification, territorial scope and duration period</p> <p>Art. 1. Declare a state of emergency due to serious internal commotion in the provinces of Guayas and Esmeraldas.</p> <p>Art. 2. The declaration of a state of emergency will be valid for forty-five days.</p> <p>Title II. Extraordinary measures taken during the state of emergency.</p> <p>Art. 3. Provide for the employment of the National Police and the Armed Forces in the territorial space delimited by this Executive Decree.</p> <p>Art. 4. Arrange for the mobilization of the National Police and the Armed Forces.</p>
Executive Decree No. 681	<p>Declaration of state of exception, identification of the facts, cause, justification, territorial scope and duration period</p> <p>Art. 1. Declare the state of exception due to serious internal commotion in the provinces of Guayas and Esmeraldas</p> <p>Art. 2. The declaration of a state of emergency will be valid for forty-five days</p> <p>Title II. Extraordinary measures taken during the state of emergency</p> <p>Art. 3. Provide for the employment of the National Police and the Armed Forces in the territorial space delimited by this Executive Decree.</p> <p>Art. 4. Arrange for the mobilization of the National Police and the Armed Forces</p>
Executive Decree No. 601	<p>Art. 1. Restriction on freedom of movement</p> <p>Art. 2. Everything that has not been modified by this Executive Decree will continue.</p>
Executive Decree No. 693	<p>Art. 1. Declare the state of exception due to public calamity of....Esmeraldas...</p>

