

*Enhancing Climate Resilience in San Cristóbal Province,
Dominican Republic. Integrated Water Resources Management
and Rural Development Programme*

Mid-Term Evaluation – July 2021

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Disclaimer

The opinions expressed in this report are those of the consultant and in no case should they be considered as those of the Adaptation Fund, the Dominican Institute for Integral Development, or the Program that is the subject of this evaluation. Any errors or omissions are the responsibility of the author.

Executive Summary

The history and systematization of scientific-technical records, together with the study of climate scenarios run with different models, show that the water resources and water supply systems of the Dominican Republic are vulnerable to current and future climate patterns, variability, droughts and floods. San Cristóbal Province is one of the provinces in the country that exhibits the characteristics described. Analyses of risk intervention priorities in the country have determined that this province is located in the high-risk area, in addition to the severe poverty levels in its rural areas. This is why the Adaptation Fund supported the program "Enhancing Climate Resilience in San Cristóbal province, Dominican Republic. Integrated Water Resources Management Rural Development and Programme" (or in short, San Cristobal Adaptation Program - PASC) to be implemented by the Dominican Institute of Integral Development (IDDI) as the National Implementing Entity, together with its executing partners the Ministry of Environment and Natural Resources (MIMARENA) and the National Institute of Drinking Water and Sewerage (INAPA).

The main objective of this Program is to increase resilience and adaptive capacity to climate impacts and risks on the water resources of rural communities in the province of San Cristobal and contribute to the diversification of their livelihoods. The Program seeks to improve access to drinking water and sanitation services for communities currently vulnerable due to lack of aqueducts. It aims to increase climate resilience by contributing to the conservation of water sources through reforestation actions in line with proper land use planning.

The Dominican Republic, according to the Global Climate Risk Index (IRC) in 2017 and 2018, ranked 11th and 10th, respectively, in the list of countries most affected by extreme weather events in the world, and being that the PASC constitutes the first provincial program implemented by the country in the context of the National Plan for Adaptation to Climate Change in the Dominican Republic 2015-2030, at the same time included in the Action Plan of the National Climate Change Strategy, which prioritizes adaptation measures for food security, water security and resilient communities, this evaluation of the first two years of the PASC is intended to feed the reflection, operational improvement, learning and knowledge sharing between the Adaptation Fund, IDDI and its main partners, the Ministry of Environment and Natural Resources¹ and the National Institute of Drinking Water and Sewerage², in the challenge of outlining a practical and replicable model to achieve greater country resilience to climate change.

¹ The governing institution of the environment, ecosystems and natural resources of the country.

² Autonomous public entity in charge of formulating and executing the general plan of water supply systems for domestic, industrial and commercial consumption, and sewage and rain water disposal systems, in rural and urban areas.

Highlights: In the evaluation process, carried out under some restrictions still existing as a prevention and/or sequel of the COVID 19 pandemic, three important aspects stand out that in the evaluator's opinion significantly supported the flow of the implementation, most of which was developed in that period:

- **Strategic vision of the ENI:** IDDI based on its experience, endeavored to carry out a solid preparatory phase, assuming the design of systems to identify environmental and social impacts related to the PASC and to identify gender inequalities throughout its life cycle, information that served as a reference for the implementation of actions that ensured compliance with the Environmental and Social Policies and the EF's Gender Policy, while identifying guiding characteristics of the communities for strengthening the social fabric. This ensured that monitoring and surveillance mechanisms were in place to avoid causing damage or impacts to the target communities and that the communities themselves could be vigilant in ensuring compliance with the policies.
- **Good practices adopted by the ENI:** The Guidelines for the Implementation of Information and Transparency Mechanisms for the Management of Programs and Projects of the Adaptation Fund in the Dominican Republic, have served as a basis for ensuring transparency in project implementation and has been a guide for beneficiaries to confidently access information, request additional information and make suggestions and complaints about project performance.
- **Implementation efficiency:** Thanks to the good foundation established on the basis of the two preceding points, it is possible to highlight that despite the holding of national elections in 2020, with the subsequent change of authorities, as well as the development and impacts of the COVID 19 problem in the country, the tenacity of the executing team and the participatory spirit of local authorities and community members, identified with the importance and need to achieve the objectives of the PASC within its provincial approach, allowed an optimal efficiency in the products and objectives planned for the first two years of the Program.

Evaluation and monitoring: The willingness and openness of the stakeholders during the evaluation work in the field were truly motivating due to the high degree of participation without inhibitions for gender reasons. Likewise, the accompaniment of the members of the Technical Team contributed to mitigate some eventual limitations and provided further learning during the evaluation process, whose direct users of the Mid-Term Evaluation results are the Technical Team and the members of the Program Steering Committee and the Management Unit (UGP).

Overall Mid-Term Evaluation Rating

Score: 1-Very low, 2-Low, 3-Medium, 4- High, 5- Very High	
Programme implementation and management	
Aspect evaluated	SCORE
Project contribution to AF's goals	5
Project contribution to AF's impacts	5
Project contribution to AF's objectives	5
General rating:	Very High
Programme Performance	
Aspect evaluated	SCORE
Relevance	4
Effectiveness	4
Efficiency	5
General rating:	High
Programme Execution and Management	
Aspect evaluated	SCORE
Programme design	4
Baseline	4
Indicators	4
Alignment of the programme with national policies for CC adaptation, strategic plans, SDGs and NDCs	5
Progress of activities under Component 1 (*)	3
Progress of Component 2 activities (*)	4
Budget and implementation of activities	4
Monitoring and evaluation system	5
Programme implementation	4
General rating:	High

(*) Delays and rescheduling due to the COVID 19 pandemic were taken into account.

Lessons learned and recommendations: In the last chapter of this document Table 7 presents the lessons learned during the implementation of the first two years of the PASC and the recommendations derived from them. However, for the purposes of this executive summary and without reducing the importance of all (lessons learned and recommendations), the evaluator has selected to include three lessons and related recommendations here, due to their potential in accelerating the flow of implementation and impacting its quality.

Lesson: Documentary review and EMT interviews account for workshops conducted by PASC for training geared towards climate adaptation and increasing climate resilience; but not all communities understand why they should increase their resilience to climate change and generally interpret the objective of the Program to be the construction of aqueducts, which is a felt need by all beneficiary communities.

Recommendation: The PASC should emphasize in the activities it carries out directly with the communities the conditions of vulnerability to hydro-climatic events, trying that the community people themselves expose and analyze the historical frequency of the same, how they have been affected by river swells, floods, isolation of their communities making it difficult to access medical care centers and transportation of people, products and food, etc., in such a way that they conceptually associate these effects with the need to develop a permanent personal and group attitude of increasing their resilience to climate risk, which includes the availability of drinking water as one of its elements; but not the only one.

Lesson: PASC does not show a clear strategy for the post-Program financial sustainability of the initiatives sponsored by the PASC. Regarding the aqueducts, this sustainability has been designed based on INAPA's experience as executing partner, through the ASOCAR, which have been organized according to the protocols and experiences already tested in several communities in the country, to manage the aqueducts and ensure their maintenance based on the collection of a fee agreed with the users. However, no consideration has been given to how to help the financial sustainability of the enterprises that will most likely be generated from the availability of water in the homes. The same occurs with the forest and agroforestry plots (farms) sponsored by the PASC as sustainable livelihoods that at the same time contribute to the conservation of water, soil and biodiversity of the micro-watersheds that feed the aqueducts. Linkages with other provincial programs and projects and micro-credit sources could contribute to post-Program financial sustainability.

Recommendation: Community people entrepreneurs of small businesses from the water received will require administrative and commercial training, as well as some working capital. Likewise, forestry and agroforestry plantations will require financial resources for their maintenance until the trees and crops reach their biological state of production and harvest. The PASC has been an opportunity for IDDI to be part of the validation process of the provincial development plan, the coalition achieved with academia and municipalities, as well as the synergy with other ongoing IDDI processes. This participation constitutes a potential to explore the possibility of synergies or leverage with projects of other provincial institutions, and to connect or design support actions for microcredits that contribute to the sustainability of the aforementioned initiatives.

Lesson: In all the meetings held with the communities, it was possible to observe not only the presence of women and men in approximately similar numbers, but a free gender participation, without inhibitions and equally valued by the members of the community assemblies. When questioned about this, they expressed that thanks to the workshops conducted by the Program, they have reached a better understanding of the importance of developing a collaborative spirit of common interest in the family, with the contribution of both men and women and their children, which they have made an effort to practice.

This same behavior was observed in the interviews with the boards of directors of the ASOCARs, which as already indicated in this evaluation are constituted by 7 people, with a majority of women; but with a complementary participation and attitude.

Recommendation: In order to optimize this model, it is recommended the exchange of experiences between communities and the identification of the benefits obtained with its practice, both in terms of family and livelihood management, sustainability and risk management.

Although the collaborative family spirit has been expressed, which is a support for sustainability, it is advisable to stimulate gender complementation not only in ASOCAR, but also in the training and practice of forest and agroforestry plots.

Acronyms and Abbreviations

ASOCAR	Asociación Comunitaria de Acueducto Rural (<i>Rural Water Supply Community Association</i>)
CC	Cambio Climático (<i>Climate Change</i>)
CC/CG	Comité Comunitario/Grupo Comunitario (<i>Community Committees and Community Groups</i>)
CDP	Comité Directivo del Programa (<i>Program Steering Committee</i>)
CMNUCC	Convención Marco de las Naciones Unidas sobre el Cambio Climático (<i>United Nations Framework Convention on Climate Change</i>)
CNCCMDL	Consejo Nacional para el Cambio Climático y Mecanismo de Desarrollo Limpio (<i>National Council for Climate Change and Clean Development Mechanism</i>)
CP	Coordinadora del Programa (<i>Program Coordinator</i>)
CPMACC	Comité Provincial de Monitoreo de la Adaptación al Cambio Climático (<i>Provincial Climate Change Adaptation Monitoring Committee</i>)
CTACC	Comités Técnicos de Adaptación al Cambio Climático (<i>Climate Change Adaptation Technical Committees</i>)
EE	Entidades Ejecutoras o Socios Ejecutores (<i>Executive Entities or Executing Partners</i>)
EMT	Evaluación de Medio Término (<i>Mid-Term Evaluation</i>)
ENI	Entidad Nacional Implementadora (<i>National Implementing Entity</i>)
FA (AF)	Fondo de Adaptación (<i>Adaptation Fund</i>)
GEF	Fondo para el Medio Ambiente Mundial (<i>Global Environment Facility</i>)
GIRH/IWRM	Gestión Integral de Recursos Hídricos (<i>Integrated Water Resources Management</i>)
H+D	Fundación Humanismo y Democracia H+D
IDDI	Instituto Dominicano de Desarrollo Integral (<i>Dominican Institute of Integral Development</i>)
INAPA	Instituto Nacional de Aguas Potables y Alcantarillados (<i>National Institute of Drinking Water and Sewerage</i>)
INDRHI	Instituto Nacional de Recursos Hidráulicos (<i>National Institute of Hydraulic Resources</i>)
IRC	Índice de Riesgo Climático Global (<i>Global Climate Risk Index</i>)
JEP	Junta Ejecutiva del Programa (<i>Program Executive Board</i>)
Loyola	Instituto Politécnico Loyola (<i>Loyola Polytechnic Institute</i>)
M&E	Monitoreo y Evaluación (<i>Monitoring and Evaluation</i>)
MEPYD	Ministerio de Economía, Planificación y Desarrollo (<i>Ministry of Economy, Planning and Development</i>)
MIMARENA	Ministerio de Medio Ambiente y Recursos Naturales (<i>Ministry of Environment and Natural Resources</i>)
NDC	Contribución Nacionalmente Determinada (<i>Nationally Determined Contribution</i>)
ODS	Objetivos de Desarrollo Sostenible (<i>Sustainable Development Goals</i>)
ONAMET	Oficina Nacional de Meteorología (<i>National Meteorological Office</i>)
ONG	Organización No Gubernamental (Non-governmental Organization)
PIB	Producto Interno Bruto (Gross Domestic Product)
PAS	Políticas Ambientales y Sociales (Environmental and Social Policies)
PASC	Acrónimo del nombre abreviado del presente programa: Programa de Adaptación San Cristóbal (<i>Acronym for the abbreviated name of this program: San Cristobal Adaptation Program</i>)
PG	Política de Género (<i>Gender Policy</i>)
PNACC	Plan Nacional de Adaptación al Cambio Climático (<i>National Climate Change Adaptation Plan</i>)
PNUD	Programa de las Naciones Unidas para el Desarrollo (<i>United Nations Development Program</i>)
POA	Plan Operativo Anual (<i>Annual Operating Plan</i>)
PPS	Programa de Pequeños Subsidios de la República Dominicana (<i>Small Grants Program of the Dominican Republic</i>)
PPR	Reporte de Desempeño del Proyecto (<i>Project Performance Report</i>)
PRONATURA	Fondo Pro Naturaleza Inc.
PYMES	Pequeñas y Medianas Empresas (<i>Small and Medium Enterprises</i>)
SICA	Sistema de la Integración Centroamericana (<i>Central American Integration System</i>)
UAFAM	Universidad Agroforestal Fernando Arturo de Meriño (<i>Fernando Arturo de Meriño Agroforestry University</i>)
UGP	Unidad de Gestión del Programa (<i>Program Management Program</i>)
USD	Dólares de los Estados Unidos (<i>United State Dollars</i>)

Introduction

Climate change poses a number of new challenges to societies, especially in poorer areas, as changes in average temperature affect food productivity and water availability, leading to additional burdens of malnutrition, diarrheal diseases and other waterborne and/or airborne infections. The Dominican Republic's water resources and water supply systems are vulnerable to current climate patterns, variability, and projected droughts and floods. Likewise, the productive sectors (agriculture, forestry, etc.) that support the livelihoods of the majority of the population, especially in rural areas, are also severely affected by climatic patterns affecting water resources and their supply.

San Cristobal Province in the Dominican Republic is an area that exhibits the characteristics described above. Analyses of risk intervention priorities in the country have determined that this province is located in the high-risk area³. At the end of 2007, storms Noel and Olga practically consecutively left a toll of 31 deaths in one of its municipalities and great material losses^{4,5}, in September 2008 the rains of cyclone Ike⁶ produced floods that left several communities of the province cut off, in April 2017 in addition to leaving several communities cut off, the considerable dragging of sediments and granular material generated by heavy rains caused damage to one of the water intakes supplying the Santo Domingo aqueduct⁷.

Approximately 33% of households in San Cristobal have access to running water. In rural areas, most households obtain water from wells or natural sources (rivers, streams, rainwater, subway storage, ponds, dams, etc.). This demonstrates the vulnerability of household water supply to the impacts of climate change, as temperature increases and the amount of rainfall decreases. On the other hand, the map of multidimensional vulnerability to climate change by province (Izzo et al., 2012)⁸ and other references, show that San Cristóbal has a medium to high degree of exposure to climate variability and climate change characterized by increasing temperatures and erratic precipitation, which, when combined with low economic development, results in increased vulnerability to climate change.

³ Herrera Moreno, A. y Orrego Campo, J. C. (2011). Revisión del Estado de la Situación de Riesgo Climático y su Gestión en República Dominicana, Santo Domingo. Instituto Internacional para el Desarrollo Sostenible. Recuperado de

[https://programaecomar.com/DominicanRepublicPaper2011SPANISH\(Nov.1\).pdf](https://programaecomar.com/DominicanRepublicPaper2011SPANISH(Nov.1).pdf)

⁴ Jiménez, L. I. (3 de noviembre de 2007) En Vila Altigracia van 27 muertos; poblado La Cueva fue borrado. Hoy. Recuperado de <https://hoy.com.do/en-villa-altigracia-van-27-muertospoblado-la-cueva-fue-%C2%93borrado%C2%94/>

⁵ PRONATURA-SSID (2019). Acción Verde para Salvar Vidas: Creando Resiliencia en el Dúey, República Dominicana (Video). Recuperado de <https://youtu.be/veLBf5272A0>

⁶ Méndez, W. (10 de septiembre de 2008). Poblados Villa Altigracia quedaron incomunicados. Listín Diario. Recuperado de <https://listindiario.com/la-republica/2008/09/10/73190/poblados-villa-altigracia-que-daron-incomunicados>

⁷ Ramírez, J. M. (30 de abril de 2017). Crecidas de ríos Haina, Dúey, Isa Mana dañan acueductos abastecen agua parte del Gran SD. Hoy. Recuperado de <https://hoy.com.do/crecidas-de-rios-haina-duey-isa-mana-danan-acueductos-abastecen-agua-parte-del-gran-sd/>

⁸ Izzo, M., L. Rathe y D. Arias (2012) Informe Final Puntos Críticos para la Vulnerabilidad a la Variabilidad y Cambio Climático en la República Dominicana y su Adaptación al mismo. Programa para la Protección Ambiental Acuerdo de Cooperación No.517-A-00-09-00106-00. IDDI-CLIMACCION/Fundación Plenitud República Dominicana.

The four axes of the National Development Strategy 2030 (MEPYD, 2012)⁹ are: Axis 1. Building a democratic social rule of law; Axis 2. Consolidating a society with equal rights and opportunities; Axis 3. Achieve a sustainable, inclusive and competitive economy; and Axis 4. To have an environmentally sustainable production and consumption society that adapts to climate change. With this framework and the conditions already described about San Cristóbal's exposure, the Dominican Institute for Integral Development (IDDI) submitted to the Adaptation Fund the program "Enhancing climate resilience in San Cristóbal province, Dominican Republic. Rural Development and Integrated Water Resources Management Programme"¹⁰ to be implemented by IDDI and executed with local partners.

The Program was approved in March 2019, and started activities in July 2019. It is classified under the Water Management sector with a grant of USD 9,953,692 and a duration of four years. IDDI is in charge of its implementation and its executing partners are the Ministry of Environment and Natural Resources and the National Institute of Drinking Water and Sewerages.

Two Project Performance Reports (PPR) have been completed so far: the first one for the period July 2019 to July 2020, and the second one from July 2020 to July 2021. The present mid-term evaluation (MTE) covers the first half of the program implementation period.



Photo 1. Meeting with the Program Management Unit at ENI headquarters.

⁹ MEPYD (2012). Ley 1-12 de la Estrategia Nacional de Desarrollo 2030. Ministerio de Economía, Planificación y Desarrollo, 25 de enero de 2012. Santo Domingo, República Dominicana, 92 p.

¹⁰ IDDI (2019). Enhancing Climate Resilience in San Cristóbal Province, Dominican Republic Integrated Water Resources Management and Rural Development Programme. Adaptation Fund / Dominican Institute of Integral Development of Dominican Republic. <https://www.adaptation-fund.org/project/enhancing-climate-resilience-san-cristobal-province-dominican-republic-integrated-water-resources-management-rural-development-programme-2/>

1. BACKGROUND TO THE EVALUATION

1.1 The Adaptation Fund, its policies and operational guidelines

1. The Adaptation Fund (AF) finances projects that help vulnerable communities in developing countries adapt and build resilience to the effects of climate change. The AF provides direct communication to accredited national institutions in developing countries, enabling them to access funding and manage projects directly¹¹. The Operational Policies and Guidelines (main text and its annexes) describe the Fund's mission and priorities, as well as the joint processes for obtaining accreditation and securing funding for projects and programs. These are based on the countries' own needs, views and priorities for adaptation.¹²
2. On the other hand, a set of 15 principles guide implementing entities through the formulation, execution and monitoring of projects and programs approved by the AF, with respect to the 2016¹³ Gender policy, revised in 2021 and the 2013 Environmental and Social policy.¹⁴

1.2 Dominican Institute for Integral Development

3. Created in 1984, IDDI, a private non-profit entity, aims to contribute to the transformation of human beings, their families and the community in which we live. In accordance with its objective, it works in the creation of integral development models at a national level, covering the areas of education, environment, health, infrastructure, income generation, sustainable development and climate change, and youth. Recently, it was the executor of the Climate Change Adaptation Measures Project, sponsored by USAID, with the purpose of establishing sectoral coordination and coordination processes towards an efficient management for climate change adaptation, which included demonstrative interventions at the watershed level that encouraged the involvement and participation of different sectors and actors in actions to increase resilience and adaptation to the effects of climate change. Over the years, the organization has invested more than US\$148 million in projects that promote sustainable development.
4. In February 2014, a group of leading national non-profit organizations were invited by the Ministry of Environment and Natural Resources, as the designated national authority, to present their credentials in order to select a candidate National Implementing Entity (ENI) that the Ministry of Environment would endorse for the accreditation process before the Adaptation Fund. Through the evaluation process carried out by the Ministry of Environment, IDDI reached the first place, opening the channeling of this organization's application to be qualified as a ENI,

¹¹ Briefing Note. <https://www.adaptation-fund.org/pdfjs/web/viewer.html?file=https://www.adaptation-fund.org/wp-content/uploads/2021/11/AF-Informational-Briefing-2021.pdf>

¹² <https://www.adaptation-fund.org/wp-content/uploads/2015/01/OPG%20ANNEX%201.pdf>

¹³ https://www.adaptation-fund.org/wp-content/uploads/2016/04/OPG-Annex-4_GP-and-GAP_approved-March2021pdf-1.pdf

¹⁴ https://www.adaptation-fund.org/wp-content/uploads/2016/07/ESP-Guidance_Revised-in-June-2016_Guidance-document-for-Implementing-Entities-on-compliance-with-the-Adaptation-Fund-Environmental-and-Social-Policy.pdf

which culminated in March 2016. Thus, in 2016, IDDI submitted to the AF the Program that is the subject of this EMT, which was approved in March 2019.

5. The program "Enhancing climate resilience in San Cristóbal province, Dominican Republic. Rural Development and Integrated Water Resources Management Programme" implemented by IDDI is executed by various institutions, mainly from the public sector, initial partners of the program, the Ministry of Environment and Natural Resources and the National Institute of Drinking Water and Sewerage, the ASOCAR (Rural Water Supply Community Association of each beneficiary community) and as collaborators mayors, municipal directors and other local organizations.

1.3 Purpose, Scope and Objectives of the EMT

6. This mid-term evaluation covers the implementation of the program "Enhancing climate resilience in San Cristóbal province, Dominican Republic. Rural Development and Integrated Water Resources Management Programme" in the first half of program development, the period July 2019 to July 2021.
7. To feed the reflection, operational improvement, learning and knowledge sharing through results and lessons learned between the Adaptation Fund, IDDI and the main program partners the EMT will have, as foreseen in the terms of reference, the following purposes:
 - a) Assess the Program's progress towards the proposed results at local level, also identifying internal and external factors that have influenced, are influencing and could positively or negatively influence the process.
 - b) Assess the relevance and pertinence of the Program and the mechanisms, strategies and processes implemented, in relation to the priorities of various stakeholders and sectors (women entrepreneurs, women's associations, productive groups, support NGOs, academia, local governments, national government, local and national networks, among others).
 - c) Identify areas where it is necessary to improve the design of the intervention.
 - d) Propose specific measures aimed at improving the Program's follow-up and monitoring system and propose mechanisms for future impact measurement.
 - e) Evaluate the efficiency of the management mechanism being used for the Project, identifying the achievements that have been reached, as well as eventual difficulties inherent to such model. Eventually, propose improvements to this mechanism. The value of the associative synergies between the Ministry of Environment and INAPA as executing partners for the achievement of the Program's results will also be analyzed.
8. Specifically, the scope of the evaluation covers:
 - a) General aspects of the project and its components.
 - Project design**
 - Impact**
 - Indicators**
 - Implementation and execution**
 - Corrections**
 - Lessons learned**

b) Assessment of progress towards the achievement of the project results

Involves the measurement of short- or medium-term, likely or achieved results of the intervention's outputs. Examples of outcomes may include, among others, institutional capacity building, increased levels of public awareness (where it leads to behavioral changes), and transformation of policy frameworks especially those related to water resource management and those related to climate change adaptation. As part of the review these data will be quantified taking into account the following criteria:

Relevance
Effectiveness
Efficiency

c) Approach to sustainability of project results

It analyzes the sustainability horizon towards the end of the Program based on the analysis of the risks that are likely to affect the persistence of its results, especially in the second half of the implementation. For this purpose, resilient actions for adaptation to climate change in the target communities will be considered, taking into account:

Institutional dimension
Actors
Good practices and lessons learned
Monitoring and evaluation

9. This evaluation exercise of the EMT should produce results that facilitate IDDI's decision making as the national entity implementing the Adaptation Fund, especially with reference to: strengthening strategies and alliances aimed at obtaining a good execution management of the Program's components; identifying good practices for their consideration in other contexts; defining mechanisms and initiatives that increase the sustainability of the practices carried out and promote their institutionalization in the different territorial and political levels of action; identifying actions aimed at improving the Program's management.

2. METHODOLOGY

2.1 Approach

10. The EMT entails a systematic and objective assessment of the Program, its design, implementation and achievements, based on two main pillars: accountability and learning. Particular value is given to learning, seeking to define good practices and lessons learned, with a view to strategic reflection on the next two years of Program implementation. Thus, its approach:
 - a) **is participatory**, seeking to combine the external eye of the evaluator with the experience of the Program's operators and partners,
 - b) **is forward-looking**, analyzing the contributions of different internal and external factors to the achievement of effects - intended and unintended, deliberate or not - from the Program's products,
 - c) **seeks to raise awareness**, contributing to accentuate and disseminate the Program's purposes, creating sensitivity towards its strengths and strategic objectives and contributing to the achievement of its results,
 - d) **addresses cross-cutting issues**, expressed in gender policies and environmental and social policies.

2.2 Evaluation methodology

11. The evaluation was carried out in five phases:

- (i) Introduction

Desk work, including preparation for field work; collection of Program documentation and other materials with complementary information; review of the methodology and preparation of the schedule of activities, in cooperation with the Program Management Unit.

- (ii) Field research

Meeting with the Program Management Unit; meetings with relevant national and local stakeholders, joint review of all available project material, with special attention to Program results and products; field visits for observation, review of ongoing activities and development of interviews with beneficiaries and key stakeholders, including representatives of local authorities.

- (iii) Collection of field information

Using as reference the documents and products related to the Program, in-depth interviews were conducted with the main referents or authorities related to the Program at national and local level. Visits were also made to the target communities and pilot project implementation sites, where direct information was obtained from community assemblies (focus groups), whose information was complemented with semi-structured interviews with key stakeholders.

(iv) Analysis and validation

Presentation of preliminary findings to the Program Management Unit, this will allow them to verify, validate and clarify further conclusions arising from the review; conduct final interviews/validation with the Program Technical Committee; drafting of the Mid-Term Evaluation (EMT) report in the appropriate format; delivery of the Final Report for comments.

(v) Final delivery of the EMT Report

Final delivery of the report, having incorporated the comments and suggestions of the Program Management Unit and the Monitoring Coordinator.

12. The EMT was carried out in the period between July 2, 2021 and February 28, 2022. The Agenda is summarized in Table 1. During the period, the evaluator conducted interviews with the ENI, key institutional actors, implementing partners and beneficiaries of the program. Also, visits were made to a sample of the plots selected to establish agroforestry demonstration plots in the beneficiary communities of the program.

Table 1. EMT's agenda.

Phases	Activities	Responsible	Dates
Introduction and detailed evaluation design	Presentation of the proposal	Technical Team	July 2
Field investigation	Coordination of visits with community groups/ Planning meeting with Community Focal Points.	Technical Team	July 6
	Field work - Loma Verde and Castaño	Technical Team	July 13
	Field work - San Francisco and Arroyo Higüero	Technical Team	July 14
	Field work - El Fundo and Los Algarrobos	Technical Team	July 15
	Field work - El Caobal	Technical Team	July 17
	Field work - Los Algarrobos	Technical Team	July 20
	Visit to demonstration plots and delivery of plants-San Francisco, and to reference plots in Haina-Duey.	Technical Team	August 23 and October 11
Information gathering	Review of project documents (reports, products, POA, etc.).	Technical Team	July 16-23
	Meeting with executing entities	Technical Team	July 21 and August 20
	Meeting with collaborating entities	Technical Team	July 21; August 20 Sept. 13
Analysis and validation (EMT draft)	Presentation	Technical Team	Feb. 22, 2022
Delivery of Final Report	Final Report	Technical Team	Feb. 28, 2022

3. PROGRAM BACKGROUND AND CURRENT SITUATION

3.1 Context, vulnerability and the need for adaptation (justification)

13. In 2017, the Dominican Republic ranked 11th among the list of countries most affected by extreme weather events, in the analysis of the Global Climate Risk Index (IRC) conducted by Germanwatch for the 20-year period 1996-2015. In the IRC publication for 2018 (Eckstein, Künzel, and Schäfer, 2017)¹⁵, the Dominican Republic moved up to position 10, i.e., it entered the category of the 10 most affected countries in the world for the period 1997-2016.
14. Although the IRC 2019, did not keep the Dominican Republic in this position, and not even among the 10 most affected countries in the period 1998-2017, the publication itself warns that "The Climate Risk Index (IRC) indicates the level of exposure and vulnerability to extreme weather events that countries should understand as a warning to be prepared for more frequent and/or more severe weather events in the future" (Eckstein, Hutfils, and Wings, 2018, p.3)¹⁶. These authors point out that the index is made on the basis of four indicators: number of deaths, number of deaths per 100,000 inhabitants, sum of losses in USD in purchasing power parity, as well as losses per unit of Gross Domestic Product (PIB). Therefore, "not being mentioned in the IRC, does not mean that there are no impacts in these countries" (Eckstein, et al., 2018, p.4).
15. What was commented in the preceding paragraph is confirmed by what happened in Puerto Rico, which jumped from position 100 to number 1 in the IRC 2019, corresponding to the period 1998-2017, due to the devastating effects of Hurricane Maria. This risk position is maintained for Puerto Rico according to Eckstein, Künzel, Schäfer, and Wings (2019)¹⁷. Similarly, this report notes that Haiti rose to position 3 as a result of the effects of hurricanes Jeanne and Sandy in 2004 and 2016, respectively. It should be noted that the island of Puerto Rico, located in the Caribbean Sea, is a neighbor of the Dominican Republic, which shares the island of Hispaniola with Haiti. In other words, they are Caribbean islands in the regular path of Atlantic hurricanes.
16. According to the different climate scenarios proposed in the National Communications, all regions of the Dominican Republic are expected to experience a wide range of temperature changes. The semi-arid and dry sub-humid areas of the Dominican Republic are affected by desertification and drought. The total area of these zones according to the 2012 Aridity Map or Drought Threat Map prepared by the Ministry of Environment covers 69.6% (33,401 km²) of the country's territory, which is considered an arid zone (MIMARENA, 2012)¹⁸. This data

¹⁵ Eckstein, D., Künzel, V., y Schäfer, L. (2017). Índice de Riesgo Climático Global 2018. Germanwatch e.V. Recuperado de www.germanwatch.org/en/14638

¹⁶ Eckstein, D., Hutfils, M-L., y Wings, M. (2018). Global Climate Risk Index 2019. Germanwatch e.V. Recuperado de www.germanwatch.org/en/cr

¹⁷ Eckstein, D., Künzel, V., Schäfer, L., y Wings, M. (2019). Índice de Riesgo Climático Global 2020. Germanwatch e.V. Recuperado de www.germanwatch.org/en/17307

¹⁸ MIMARENA (2018). Plan Nacional de Sequía. Ministerio de Medio Ambiente y Recursos Naturales (MIMARENA)/ United Nations Convention to Combat Desertification (UNCCD), Santo Domingo, República Dominicana. https://knowledge.unccd.int/sites/default/files/country_profile_documents/Informe%2520final%2520Plan%2520Nacional%2520Sequia%2520COMPLETO_0.pdf

corresponds with that determined by Izzo, Rathe and Arias (2012)¹⁹ from the index map of environmentally sensitive areas generated in their study of hotspots for vulnerability to climate variability and change, that 48% of the Dominican territory is critically sensitive to desertification and 16% is in a highly critical state.

17. San Cristóbal province, located in the southwest of the Dominican Republic, has a population of 0.57 million inhabitants. According to data from the 2010 national population and housing census, 36.2% of the population has income below the upper poverty line, while 6.4% is below the extreme poverty line. Poverty is predominantly severe in rural areas, where the index calculated between municipalities and municipal districts (most rural territorial units) is 58.2% (Morillo Pérez, 2014)²⁰.
18. The current situation of the ecological belts of San Cristóbal can be described, in terms of resource attributes (water, agriculture, minerals, energy and waste), as a factor that increases risks and vulnerability. The state of agriculture in the province is characterized by the availability of land, the relative advantage for the production of certain crops and the untapped potential of livestock production. Despite showing a certain tendency towards commercialization, subsistence agriculture continues to prevail, leading to conflicts of use with water for human consumption.
19. The total territory of the province is 1,265.77 km², which represents 2.6% of the national territory. According to the Atlas de Biodiversidad y Recursos Naturales (2012)²¹, agricultural land currently in use is 671.5 km² and there is 0.25 km² dedicated to agriculture under controlled environment. The average land tenure is 5.8 hectares. Forest cover is significant, covering 554.2 km².
20. San Cristóbal has received significant public investment in recent years. However, the province still has underutilized wealth that could support an intensive agricultural modernization program. This includes a network of watersheds with very fertile areas (i.e. Haina, Nigua and Nizao). These areas can become zones of increased agricultural production with different, more resilient crops that are also produced and marketed competitively over longer seasons, compared to current crops. With a planned and sustained increase in agricultural development, it is understood that the availability of potable water must also be increased.
21. Climate change is expected to have an impact on agricultural production, increasing pressure on water resources and intensifying conflicts with water for human consumption. In fact, a recent analysis (González Tejera, 2019)²² of data from the period 2009 to 2019 at 36 stations of the

¹⁹ Izzo, M., Rathe, L., y Arias, D. (2012). Informe Final Puntos Críticos para la Vulnerabilidad a la Variabilidad y Cambio Climático en la República Dominicana y su Adaptación al mismo. Programa para la Protección Ambiental-Acuerdo de Cooperación No.517-A-00-09-00106-00. IDDI-CLIMACCION/Fundación Plenitud República Dominicana.

²⁰ Morillo Pérez, A. (2014). El Mapa de la pobreza en la República Dominicana 2014. Informe general. Ministerio de Economía, Planificación y Desarrollo Unidad Asesora de Análisis Económico y Social. Santo Domingo, República Dominicana, 402 pp. https://mepyd.gob.do/mepyd/wp-content/uploads/archivos/uaaes/mapa_pobreza/2014/Mapa%20de%20la%20pobreza%202014.%20Informe%20general.%20editado%20final%20FINAL.pdf

²¹ Atlas de biodiversidad y recursos naturales de la República Dominicana (2012). Ministerio de Medio Ambiente y Recursos Naturales, ISBN 978-9945-8728-4-2, República Dominicana, 120 pp.

²² González Tejera, M. (2019) Precipitaciones 2018 y 2019, su impacto en la sequía de República Dominicana (36 estaciones ONAMET). Ministerio de Agricultura. <https://agricultura.gob.do/wp-content/uploads/2019/11/Precipitaciones-2018-y-2019-efectos-en-SEQUIA-Republica-Dominicana-CODIA-22-noviembre-ManEGonTe.pdf>

National Meteorological Office (ONAMET) distributed nationwide shows that, the monthly deviation of precipitation in 130 months behaved as follows: 40 months ABOVE normal, 44 months in NORMAL range and 46 months BELOW. For the years 2018 and 2019, the study showed that the deviations of precipitation for 22 months (January-December 2018 + January-October 2019) in relation to the average normal range of the 36 stations resulted in 4 of the 22 months being ABOVE normal, 6 months in the NORMAL range and 12 months BELOW normal, with the deficit being more pronounced in 2019.

22. Agriculture in San Cristobal is predominantly rainfall based, with less than 30% irrigation potential developed. Approximately 80% of rainfall occurs between June and August-October, and excess soil moisture occurs during these periods. Both the onset and cessation of rainfall are irregular, and temporal and spatial variability is high. Even within the regular humidity during the year, 14 to 17 days of drought per month are common from November to April, according to data obtained from ONAMET during the formulation of the resilience program for San Cristóbal that is the subject of this EMT. Most of the soils have a medium to low retention capacity, due to their nature, texture, and organic matter content. High rates of surface runoff during the rainy months cause sediment accumulation in water storage facilities such as small dams and community ponds. High evaporation rates in the dry and hot season, sedimentation caused by erosion, and clearing of trees to make agricultural plots, contribute to reduced water holding capacity and rapid drying of ponds and retention features.
23. Flood events are more relevant for municipalities in the southernmost part of the province of San Cristóbal (coastal areas) and for the northernmost municipalities (mountain slopes), partly due to the impacts of climate change in the form of extreme precipitation. Flooding leads to crop loss, waterborne diseases and loss of life (Arnemann-Ramírez and Gil-Herrera, 2021)²³.
24. Regarding climate risk in the agricultural sector, Herrera Moreno and Orrego Campo (2011)²⁴, refer to the studies (of climate scenarios) of the Second Communication on Climate Change for the Dominican Republic (SEMARENA, 2009)²⁵ in relation to the crops that will be affected. Similarly, with regard to the potential for climate risk, these authors report that when crossing the zones of high danger to agricultural droughts, based on the behavior of these in the country during the period 1971-2000, with the vulnerability data, they found that the provinces of San Cristóbal and Peravia have greater exposure.

²³ Arnemann-Ramírez, F. y Gil-Herrera, R. (2021). Recuperación de cuencas vulnerables basadas en medidas de gobernanza y sostenibilidad: Proyecto Haina-Duey en República Dominicana. Presentación XVI Congreso Internacional de Investigación Científica, Santo Domingo, junio 9 – 11, 2021. Ministerio de Educación Superior, Ciencia y Tecnología (MESCyT).

²⁴ Herrera Moreno, A. y Orrego Campo, J. C. (2011). Revisión del Estado de la Situación de Riesgo Climático y su Gestión en República Dominicana, Santo Domingo. Instituto Internacional para el Desarrollo Sostenible (IISD).

[https://programaecomar.com/DominicanRepublicPaper2011SPANISH\(Nov.1\).pdf](https://programaecomar.com/DominicanRepublicPaper2011SPANISH(Nov.1).pdf)

²⁵ SEMARENA (2009). Proyecto Cambio Climático 2009-Segunda Comunicación Nacional. Secretaría de Estado de Medio Ambiente y Recursos Naturales (SEMARENA)/Programa de las Naciones Unidas para el Desarrollo (PNUD). Santo Domingo, República Dominicana.

<https://unfccc.int/resource/docs/natc/domrepnc2.pdf>

25. The Summary of the Third National Communication on Climate Change (MIMARENA, 2017a)²⁶ indicates that according to eight models run to analyze future climate scenarios, which took as a baseline data from the period 1960-1990, it was concluded that: "- The dry season (December-April) may intensify even more towards 2050 and 2070. - Total annual precipitation by 2050 will decrease by 15% when averaged over the entire national territory, reaching low values of 17% by 2070, compared to the historical values of 1961-1990. - The southern and western provinces of the country will be the most affected by the decrease in precipitation by 2050 and 2070" (p. 28).
26. In terms of climate change vulnerability and adaptation needs, water availability is the most important area for public health, agricultural production and livelihoods in the province of San Cristobal. There is a clear need to counteract the negative impacts of climate change on water resources and livelihoods. There is also a need to look at water use efficiency while developing the capacity to manage this resource to cope with floods and droughts in order to protect people, their livelihoods and development. Aspects that are supported by the PNACC RD²⁷ developed in the framework of the Third National Communication on Climate Change (MIMARENA, 2017)²⁸, which assumes as a product of the participatory consensus inherent to the methodology for the development of this document the following textual paragraph "agricultural innovation and research processes are defined and promoted through the use of a model that allows adjusting, reducing and achieving greater resilience of production systems in the face of vulnerability to the effects of climate change. This implies using appropriate measures according to current and potential climate scenarios, taking into account the characteristics of soils and crops" (p.167).
27. It is in this context that the EMT was able to appreciate through meetings with stakeholders (Photo 2) and interviews with municipal entities (Photo 3) that their perception of IDD's Program is that it supports existing efforts in the communities and motivates the development of other efforts that contribute to increase their water availability for domestic use. They are assisted in the rehabilitation and improvement of their drinking water supplies, storage tanks and retention elements, and sanitation systems. Reforestation is encouraged in order to reduce soil erosion and sedimentation in small ponds and retention dams. Aspects that are aimed at increasing climate resilience by taking into consideration their water needs in housing and their conservation with reforestation of watersheds.

²⁶ MIMARENA (2017a). Resumen Ejecutivo: Tercera Comunicación Nacional de la República Dominicana ante la Convención Marco de las Naciones Unidas sobre Cambio Climático, 2014-2017. Ministerio de Medio Ambiente y Recursos Naturales-Consejo Nacional para el Cambio Climático-GEF-PNUD, República Dominicana.

[https://www4.unfccc.int/sites/SubmissionsStaging/NationalReports/Documents/29064815_Dominican%20Republic-NC3-1-Resumen%20Ejecutivo%20CNCC_low%20\(2\).pdf](https://www4.unfccc.int/sites/SubmissionsStaging/NationalReports/Documents/29064815_Dominican%20Republic-NC3-1-Resumen%20Ejecutivo%20CNCC_low%20(2).pdf)

²⁷ Fundación Plenitud (2016). Plan Nacional de Adaptación al Cambio Climático en la República Dominicana 2015-2030. Ministerio de Medio Ambiente y Recursos Naturales/GEF/PNUD, Santo Domingo.

[https://cambioclimatico.gob.do/phocadownload/Documentos/cop25/Plan%20Nacional%20de%20Adaptaci%C3%B3n%20para%20el%20Cambio%20Clim%C3%A1tico%20en%20la%20Rep%C3%ABlica%20Dominicana%202015%20-%202030%20\(PNACC%20-%20RD\).pdf](https://cambioclimatico.gob.do/phocadownload/Documentos/cop25/Plan%20Nacional%20de%20Adaptaci%C3%B3n%20para%20el%20Cambio%20Clim%C3%A1tico%20en%20la%20Rep%C3%ABlica%20Dominicana%202015%20-%202030%20(PNACC%20-%20RD).pdf)

²⁸ MIMARENA (2017). Tercera Comunicación Nacional de la República Dominicana ante la Convención Marco de las Naciones Unidas sobre Cambio Climático, 2014-2017. Ministerio de Medio Ambiente y Recursos Naturales-Consejo Nacional para el Cambio Climático-GEF-PNUD, República Dominicana.

[https://www4.unfccc.int/sites/SubmissionsStaging/NationalReports/Documents/29064815_Dominican%20Republic-NC3-1-Informe%20Tercera%20Comunicaci%C3%B3n%20\(Para%20WEB\)%20\(2\).pdf](https://www4.unfccc.int/sites/SubmissionsStaging/NationalReports/Documents/29064815_Dominican%20Republic-NC3-1-Informe%20Tercera%20Comunicaci%C3%B3n%20(Para%20WEB)%20(2).pdf)



Photo 2. Focus group in El Caobal.



Photo 3. Interview with municipal directors.

3.2 Program Concept

Design, objective, political-geographical area, scope of the program

28. The main objective of the Program is to increase resilience and adaptive capacity to climate impacts and risks on water resources of rural communities in the San Cristobal province and contribute to the diversification of their livelihoods. The Program seeks to improve access to drinking water and sanitation services for communities currently vulnerable due to lack of aqueducts. It aims to increase climate resilience by contributing to the conservation of water sources through reforestation actions in line with proper land use planning. Some specific expected benefits that increase resilience and adaptation to climate change are: increased institutional and community capacity for the coordination of integrated water management that supports other uses of water resources; construction of several community aqueducts for household drinking water supply; diversification of livelihoods through the establishment of model agroforestry farms and training for their management; and the involvement of women in community development leadership and empowerment.
29. In the Program's approach the main problem to be addressed, and which requires adaptation, is the climate change induced reduction in water availability, increased unpredictability of water resources and the associated negative impacts on the livelihoods of rural communities in the San Cristobal province. Normally the most immediate tool in the face of vulnerability (natural and induced) is adaptive capacity. However, in many cases the most vulnerable people and communities are the least able to adapt. This further shapes the scale and types of adaptation actions required in response to the nature and context of climate vulnerability.
30. The most important and highest investment interventions proposed by the Program was to ensure that water, as a natural resource, can provide - in a sustainable manner - the range of goods and services needed for social, economic and environmental adaptation. Therefore, some of the measures considered focused on the underlying causes of communities' vulnerability that affect their capacities to adapt to climate change. Thus, the Program induces institutions to implement long-term water resources planning and management, which is an effective means to increase resilience to climate change impacts.

31. The Program in general has been based on the social, economic, environmental and climate risk characteristics of San Cristóbal Province (Figure 1), and although its actions are aimed at communities of high vulnerability in two of the eight municipalities of the province, the Municipality of Villa Altagracia, the northernmost and largest area, and the Municipality of Cambita Garabito in the central zone, its potential for scaling up to other communities in the province is high, due to the ease of intercommunity connection, the northernmost and largest, and the municipality of Cambita Garabito in the central zone, its potential for scaling up to other communities in the province is high, due to the ease of inter-community connection and the socioeconomic, biophysical and climatic vulnerability similarities. The same as the methodologies and techniques evaluated and validated, such as water governance led by local community associations and agroforestry production models based on ecosystem-based adaptation, could be replicated regionally and/or nationally.



Figure 1. The San Cristóbal province and its municipalities.

32. As the National Implementing Entity, IDDI has technical responsibility for achieving the expected results/outputs and administrative responsibility for compliance with schedules, reporting, financial operations to support implementation and capacity building of implementing partners, as defined in the Program.
33. The programmatic approach is carried out by IDDI with the support of relevant public entities: Ministry of Environment and Natural Resources (MIMARENA) and the National Institute of Drinking Water and Sewerage (INAPA) as executing partners, which, especially through their local representatives, have in-depth knowledge of the characteristics, concerns and needs of the Program's beneficiary communities. These conditions, together with the monthly assemblies held in the territories in a participatory manner with the ASOCARs, municipal authorities, leaders representing other local organizations and people from the community in general, contribute to the detailed knowledge of the needs and their solution with positive impacts of the Program's execution.
34. Other private entities (PYMES, in addition to ASOCAR), civil society organizations (PRONATURA, UAFAM, Loyola, H+D, etc.), selected community groups, as well as independent professionals (contractors, consultants and advisors) have participated, both during

the construction of the Program proposal and during the execution process. Considering that the Dominican Republic has established a regulatory and institutional framework for climate change, the Program's activities have been aligned with the country's priorities and its national commitments under the UNFCCC. This includes, but is not limited to, the Nationally Determined Contribution (NDC) of the Dominican Republic, which in the revised edition (NDC-DR, 2020)²⁹ assumes adaptation to climate change, incorporating important adjustments in areas that are considered of urgency to build a more resilient country. The priorities are presented in 37 measures distributed in different sectors, including water security, food security, resilient cities and biodiversity and forests, within which this Program is classified. Based on this revision of the NDC, the Action Plan of the National Climate Change Strategy has been prepared, in which this PASC is included.

35. There are two intervention components of the Program. Component 1: involves drinking water supply, awareness-raising on the value of water, water conservation, micro-watershed management and reforestation; while Component 2: focuses on capacity building, local training, knowledge management and risk management.

Program Design

36. The design of the Program covers, with the application of its two components, the municipalities of the Province of San Cristóbal: Villa Altagracia and Cambita Garabito. The first, as indicated above, is located in the Northeast-North and the second, in the central strip of the province. Based on poverty and vulnerability indicators, interventions were prioritized in three zones (Table 2), two of them in Villa Altagracia.

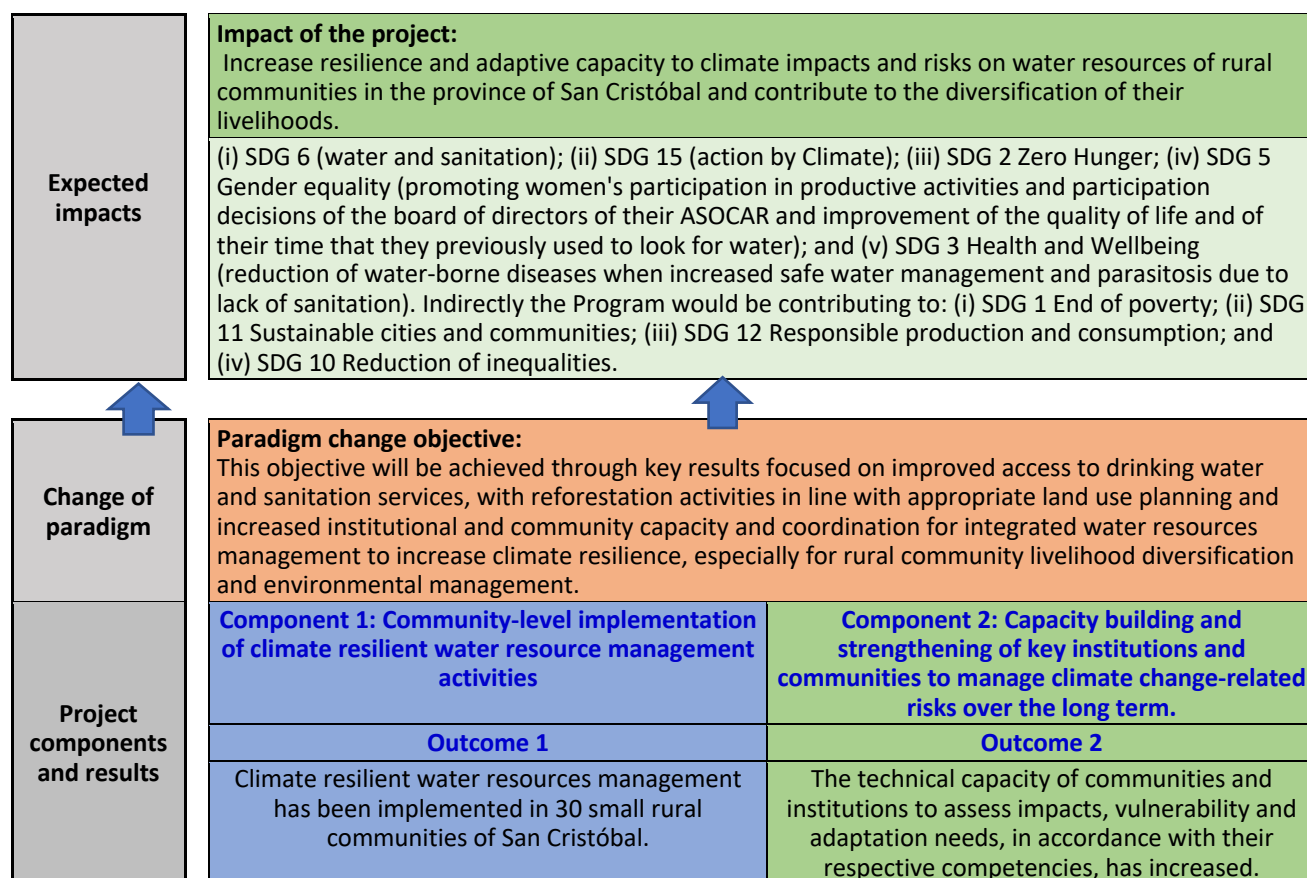
Table 2. Prioritized zones for the Program's interventions.

Zone	Municipality	Municipal District	Communities
1	Cambita Garabito		<ul style="list-style-type: none"> • San Francisco • Arroyo Higüero
2	Villa Altagracia	Medina	<ul style="list-style-type: none"> • Loma Verde • Castaño • Algarrobos • El Fundo
3	Villa Altagracia	La Cuchilla	<ul style="list-style-type: none"> • El Caobal

²⁹ NDC-RD (2020). Contribución Nacionalmente Determinada 2020. Gobierno de la República Dominicana, diciembre 2020, Santo Domingo.
[https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Dominican%20Republic%20First/Dominican%20Republic%20First%20NDC%20\(Updated%20Submission\).pdf](https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Dominican%20Republic%20First/Dominican%20Republic%20First%20NDC%20(Updated%20Submission).pdf)

37. Two factors impacted the project timeline: (1) the COVID 19 pandemic along with nationally imposed sanitary restrictions; (2) the holding of municipal elections in March 2020, and presidential and congressional elections in July 2020, with the inauguration of the new municipal authorities in April and presidential/congressional in August of the same year. Both factors delayed some Program activities both due to physical impediments to free mobility (pandemic) and due to the adjustments that had to be made in the process of presentation, exchange, confidence building and return to unified Program-authorities-community approaches (new authorities). Notwithstanding the aforementioned causes, the Program design has not been affected.
38. No formal changes have been made to the Program design and the activities, products and results originally proposed are maintained. In this sense, it is worth mentioning that the construction of the first (Arroyo Higüero Aqueduct) of the 7 programmed community aqueducts, which are the main works of the Program, has already started.
39. The Theory of Change shows the impact and paradigm change expected to be achieved at the end of the Program, linking the activities, products and results to be developed in its two components. The challenge is to fill the gaps and overcome the identified barriers, using the lessons learned that have been evidenced during this EMT.

Theory of Change



	Output 1.1	Output 1.2	Output 1.3	Output 2.1	Output 2.1	Output 2.2
Project Outputs	Community water supply and management plans are developed for 7 municipalities to incorporate the risks related to climate change	The supply of drinking water under climatic impacts (i.e., droughts, heat waves, etc.) in 30 rural communities has increased.	Measures for water conservation under climate impacts (i.e., management of micro-basins and re-forestation programs, etc.) for 2,722 hectares have been implemented	A set of manuals and other materials on best practices for community water management is developed, including a fully operational website	A Provincial Committee for Adaptation to Climate Change established in San Cristóbal	Learning platforms and design of a system for integrating climate change related risk into community water resource management and institutionalized livelihood activities in 8 municipalities.
Project activities to overcome barriers to climate change adaptation	<p>1.1.1 Workshops for Identification of Needs and Knowledge of the CC</p> <p>1.1.2 Support to the communities in the program's ongoing evolution and implementation of the plans.</p>	<p>1.2.1 Design and construction of water supply and storage infrastructure in 7 pilot communities.</p> <p>1.2.2 Training communities in the use and maintenance of water storage and supply systems.</p>	<p>1.3.1 Design of reforestation/conservation schemes in the pilot intervention zones of the project.</p> <p>1.3.2 Mapping and updating cartography of intervention zones for conservation activities..</p>	<p>2.1.1 Compilation of experiences, materials and methodologies through the elaboration of a Toolbox for strengthening local stakeholders in Integrated Water Resource Management for CC adaptation and resilience</p> <p>2.1.2 Design of the Training, Dissemination and Communication Strategy on CC Adaptation and Resilience measures.</p>	<p>2.2.2 Implementation of the CC Knowledge Platform and Adaptation and Resilience Measures.</p> <p>2.2.2 Collection and analysis of information (legal, regulatory and reference framework CC)</p>	<p>2.3.1 Design and Reproduction of Toolkit Material for local stakeholder strengthening</p> <p>2.3.2 Design of a communication strategy</p>

	<p>1.1.3 Monitoring and follow-up visits for the strengthening of the social fabric</p>	<p>1.2.3 Sustainability strategies for the use and maintenance of the program's infrastructure works through the creation of ASOCARs.</p>	<p>1.3.3 .Implementation of Climate Impact Conservation Measures based on the studies and analysis of the pilot project sites.</p>	<p>2.1.3 Website design and set-up and Social Media Management</p>	<p>2.2.3 Formation and/or strengthening of the Technical Committees for the monitoring of adaptation to CC</p>	
		<p>1.2.4 Linking vulnerable upstream and downstream communities through climate-informed management of springs and water source protection</p>			<p>2.2.4 Ongoing meetings for the follow-up and implementation of the CC Adaptation and Resilience strategy with a gender perspective.</p>	
<p>Gaps and obstacles to address</p>	<p>Communities are not clear about the issue of climate change and their vulnerability to climate impacts.</p>	<p>Lack of coherent and planned water management activities in communities.</p>	<p>There is no micro-basin care approach to secure water sources, nor are effective measures implemented to secure water resources in the intervention zones.</p>	<p>There are no mechanisms for dissemination and communication on climate change and the necessary adaptation measures for the communities.</p>	<p>There is no coordination between local and national institutions to establish CC adaptation actions.</p>	<p>It is necessary to establish a communication strategy to disseminate messages to the communities about the need to address the climate problem, conserve their spaces and establish adaptation measures.</p>

Executing entity, partners and execution procedure

40. IDDI as ENI is responsible for ensuring that the policies and criteria of the Adaptation Fund are met and that the Program achieves its objectives and achieves its intended results in an efficient and effective manner. As manager it is responsible for oversight on behalf of the AF, therefore it is expected to ensure timeliness, quality and financial standards of implementation.
41. The Program Steering Committee (CDP) is the mechanism for enforcing the Program's decision-making process, especially to mitigate or avoid risks beyond IDDI's control. It is composed of high-level representatives from IDDI, the Ministry of Environment and Natural Resources, INAPA and key institutions such as the Governor's Office of San Cristobal, the National Institute of Hydraulic Resources (INDRHI), the Ministry of Economy, Planning and Development (MEPYD), local governments, universities and NGOs. This committee is chaired by IDDI and the Ministry of Environment is the permanent secretary. In addition, the CDP membership could include the lead ministries of the decentralized agencies that will be involved in the delivery of project outputs at the community level, such as the Ministries of Public Health, Public Works, Industry and Commerce, Youth, Agriculture, Women's Affairs and others. The CDP meets periodically to discuss matters within its purview. It adopts IDDI's Code of Conduct and Ethics and Conflict of Interest Manual. It ensures gender inclusion and representation, with at least 50% women in its membership.
42. The Program Executive Board (JEP) is responsible for approving the Program's main management decisions, ensuring technical quality, financial transparency and the overall impact of its development. The Board is composed of the focal points of MIMARENA and INAPA, and the Program Coordinator, the ENI Financial Manager and the Program Administrative Officer. For purchasing decisions, the JEP relies on the Procurement Committee established by the ENI. Women make up 50% of the JEP's membership.
43. The Program Management Unit (UGP) reports to the JEP and is responsible for the implementation of the PASC activities. The UGP prepares annual work plans and progress reports and implements the M&E plan. The UGP coordinates the activities of each component with the different government agencies/local organizations that collaborate and participate in the implementation of the Program. This unit ensures adequate stakeholder participation and commitment, transparency and performance. The UGP ensures effective and efficient coordination, especially when activities depend on several actors for their implementation.
44. The tasks of the UGP include: (i) preparing the annual operation plan, (ii) coordinating the implementation of projects and activities; (iii) facilitating, in collaboration with civil society organizations, the identification and formulation of projects eligible for support under the PASC; (iv) submitting plans and proposals for approval by the JEP; (v) supervising project implementation and ensuring adequate follow-up and financial administrative accountability; (vi) submitting disbursement requests, annual reports, and evaluation and audit reports of approved projects to the JEP.
45. The Program Manager, now Program Coordinator (CP), was a position defined to be held by a woman, appointed for the entire duration of the PASC. She directs the UGP and is responsible for day-to-day operational and administrative management. The CP must ensure that the Program

produces the specified results with the required level of quality, with efficiency and transparency, and within time and cost effective constraints. To this end, it plans, organizes, supervises and verifies all PASC activities, seeking their integration into the structures and processes of the key institutions.

46. The staff of the UGP is composed of Technical, Support, Administrative, and Monitoring and Evaluation areas, as shown in Table 3.

Table 3. Program areas and personnel.

Technical	Name
Program Manager	Arcadia Francisco
Climate Especialist	Maximino Herrera
Field Coordinator 1	Segunda Heredia
Field Coordinator 2	Elizabeth Felix
Support staff	
Community specialist	Luis Alejo Javier
Communications Expert	Elizabeth Regalado
Technical Official	Damaris Mejia
Local Expert	Antonio Vazquez
Administrative	
Financial Specialist	Arelis Fermin
Administrative Official	Drixie Alonzo
Accountant	Raquel de la Cruz
Driver	Daniel Montero
Monitoring & Evaluation	Pedro Zuccarini

Management agreements

47. The CSAP management arrangements have been designed to facilitate broad linkages at all levels, from national-level policy makers to institutional-level operations, communities, beneficiaries and strategic allies (Table 4). The following criteria have been taken into account in the design of these agreements:

1. Consistency with the governance structures and mandates of the agencies;
2. Accountability and transparency in the flow of funds to ensure cost-effectiveness;
3. Timely disbursement to ensure delivery within the stipulated timeframe;
4. Encouraging participation and ownership; and
5. Integration and sustainability.

Entity	Main Objective of the Document/Agreement
Ministry of Environment and Natural Resources	Letter dated February 18, 2021, addressed to the Secretariat of the Adaptation Fund Board with the No Objection for the re-accreditation of the Dominican Institute for Integral Development (IDDI) as National Implementing Entity (ENI) of the Adaptation Fund (AF).
National Council for Climate Change and Clean Development Mechanism	Framework agreement that aims to facilitate the exchange of information, ideas and proposals on the management and administration of initiatives related to climate change and the commitments defined in the NDC, as well as the reciprocal delivery of courses, lectures, conferences and temporary exchange of technicians to ensure the training of staff of both institutions, in order to contribute to increase their capabilities and skills in this area.
CIDEAL Foundation	CIDEAL's objective is to manage with the business and public sector of the province the adoption of spaces for the care and conservation of green areas near the Haina, Nizao and Yubazo river basins, in order to apply Corporate Social Responsibility, promoting public-private partnerships in the framework of climate change adaptation linked to the Environmental and Social Principles of the AF and the ODS.

Table 4. ENI agreements with other entities that facilitate the achievement of the Program's objectives and its sustainability.

Partners in program execution

48. The Ministry of Environment is one of the executing partners. Through the Vice Ministries of Forestry Resources, Soil and Water, Protected Areas and Biodiversity and the Climate Change Directorate, it coordinates reforestation, micro-watershed conservation and ecosystem restoration activities with a focus on adaptation. The Ministry acts as the main government institution to facilitate linkages between the national and local levels, ensuring adherence to national environmental and climate change guidelines at the community level.
49. INAPA, a decentralized public agency in charge of drinking water, sewerage and pluvial water services, is the other implementing partner of the PASC. This institution is responsible for the implementation of drinking water and sanitation projects under the Program, as well as for the creation and formalization of the ASOCARs. Where conditions exist, all activities foreseen by the Community Committees / Community Groups (CC/CGs) are related to the water user associations and the irrigation user committee (for the management of water resources and irrigation systems, supervision of infrastructure projects, identification of private contractors, etc.). In line with this approach, INAPA contributes together with IDDI's technical team to strengthen the CC/CGs in building synergy with other decentralized agencies related to the Program.
50. Other government agencies such as INDRHI, the Ministry of Public Health, the Ministry of Public Works, the Ministry of Agriculture, the Ministry of Women, the Ministry of Youth, etc., have supported the executing entities in specialized aspects in timely or necessary cases depending on the nature of the activity carried out. This measure not only contributes to strengthening the capacities of these institutions, but also reduces implementation risks.

Local coordination and execution

51. Community Committees and Community Groups - These have been formed at the local level in each location where the PASC implements individual projects, which will ensure adequate coordination and participation of key stakeholders and representatives of beneficiary groups at the local level. Under the Program, key government agencies will work in coordination with the CC/GC to deliver the Program's outputs and ensure that institutional capacity for local adaptation action is built and will survive beyond the duration of the Program. For this purpose, agreements will be signed with the corresponding CC/CG. The nature and scope of the Cooperative Agreements will follow IDDI's experience in community-based initiatives, which have proven to create greater ownership, ensure accountability, foster local creativity and mobilize local counterparts. To strengthen the gender equity focus of the program, empowered women represent 50% or more and youth represent 35% or more of the CC/CG members.
52. Community agents - For the implementation of the PASC, particularly in the management of water and forest resources in the intervention areas, the participation of community agents, who will provide technical assistance to the communities, is essential. Therefore, it is necessary to ensure that they have the necessary technical skills to implement the activities. The experience of the Dominican Republic's Small Grants Program (PPS), designs institutional arrangements that can be used in relation to the use of community agents. They are formed from interested community members, beneficiary groups and local ONG staff, through practical and concrete training in aspects that will focus -in principle- on the types of services that will be required by the Program's interventions, based on climate change adaptation criteria.
53. Local ONGs - A program such as this cannot rely solely on the governmental system. Fortunately, local ONGs are rapidly acquiring capacities to implement climate, forestry and environmental projects, in collaboration with communities and international agencies. ONGs such as H+D and Atabey are participating as executors of strategic actions of the Program. In order to support the synergic integration of PASC activities, community activities and those of other organizations with local influence, discussions have been held with the Loyola Polytechnic Institute, Floresta and others.

3.3 Immediate and developmental objectives of the Program

Objective

54. General objective: Increase resilience and adaptive capacity to climate impacts and risks on water resources of rural communities in the San Cristobal province and contribute to the diversification of their livelihoods.

Components

55. Component 1: Community-level implementation of climate-resilient water resources management activities. - This component seeks to integrate water resources management and development into environmental management at the community level, thus achieving sustainability of water resources in terms of quality and quantity and increasing resilience in the communities. To this end, the starting point is to provide support for the sustainability of existing community management, ensuring the operation and maintenance of current facilities, in order to safeguard the investments already made. The above processes are supported by strengthening community organizations so that they assume a central role, supporting community management of the hydraulic works carried out (including those executed by the Program), promoting the reforestation program of micro-watersheds and maintaining the integrity of aquatic systems.
56. Component 2: Capacity building and training in key institutions and communities to manage climate change related risks in the long term. - Taking into account the lack of quantity and quality of data, as well as the need for relevant technical capacity to implement climate change adaptation at the community level, this component seeks to develop technical and institutional capacities for climate change adaptation planning at the level of vulnerable communities; both in adaptive capacities/policy development in the long term and climate risk management in the short term. This includes the participatory development of in situ adaptation actions for water management, the development of contingency plans, early warning systems and climate risk management, strengthening interactions between relevant actors for climate change adaptation: government, meteorological services, agricultural/livestock sector, research institutions, national and local government, media and local communities (mainly the poorest). It is also intended to ensure sustainability with the creation and operation of a Provincial Climate Change Adaptation Monitoring Committee (CPMACC), assuming the relevant policies, and mainstreaming climate change and gender into all municipal and provincial plans, activities and projects.

Logic Framework

Program Components	Concrete Products	Expected Results	Cost (US\$)
1. Implementation of water resources management activities at the community level	1.1 Community plans for drinking water supply and sanitation, for 30 communities to incorporate the risks related to climate change, have been developed.	Water management resilient to climate has been implemented in 30 small rural communities of San Cristóbal	113,445.00
	1.2 The supply of drinking water under climatic impacts (i.e., droughts, heat waves, etc.) in 30 rural communities has increased.		6,417,630.00
	1.3 Measures for water conservation under climate impacts (i.e., management of micro-basins and re-afforestation plans, etc.) for 2,722 hectares have been implemented.		1,668,925.00
COMP. TOTAL 1			8,200,000.00
2. Capacity building and capacity building in key institutions and communities to manage the risks related to long-term climate change	2.1 A set of manuals and other materials on best practices in drinking water management and sanitation, including a fully operational website, have been developed.	The technical capacity of communities and institutions to assess impacts, vulnerability and adaptation needs, in accordance with their respective competencies, has increased.	44,000.00
	2.2 A Provincial Committee on Adaptation to Climate Change of San Cristóbal has been established.		32,000.00
	2.3 A learning and systems platform to integrate the risks related to climate change in community water resources management and livelihood activities has been institutionalized in 30 communities.		102,000.00
COMP. TOTAL 2			178,000.00
3. Program execution costs			795,910.00
4. Total program costs			9,173,910.00
5. Fees of the Implementing Entity for the management of the Program Cycle			779,782.35
Amount of Funding Requested			9,953,692.35

3.4 Current implementation status

57. After two years of the PASC, all the products foreseen in the Logical Framework are underway, however, affected in time by the sanitary restrictions that were established in the country in a very strict manner due to COVID 19, from March 2020 to the first quarter of 2021, although in the latter period a little more lax.
58. This section provides an overall analysis of the Program's mid-term progress based on the executed budget compared to the budget originally proposed and approved by the AF. Figure 2 compares these amounts for each of the programmed outputs, excluding ENI implementation and administration costs. It can be seen that the largest amounts executed correspond to the largest funds set aside for outputs 1.2 and 1.3 (see Logical Framework) related to the supply of drinking water to communities and management planning studies for water conservation.



Figure 2. Budgeted funds by full program outputs versus mid-term delivery.

59. The Program budgeted a total cumulative investment of USD 4,200,248.18 by the end of the second year, of which USD 3,274,535.89 was executed, representing 78% of the budget (Figure 3). This can be interpreted as satisfactory in terms of PASC progress, taking into account the negative factor of the COVID 19 pandemic that greatly reduced logistics activities due to travel and social outreach restrictions (meetings).

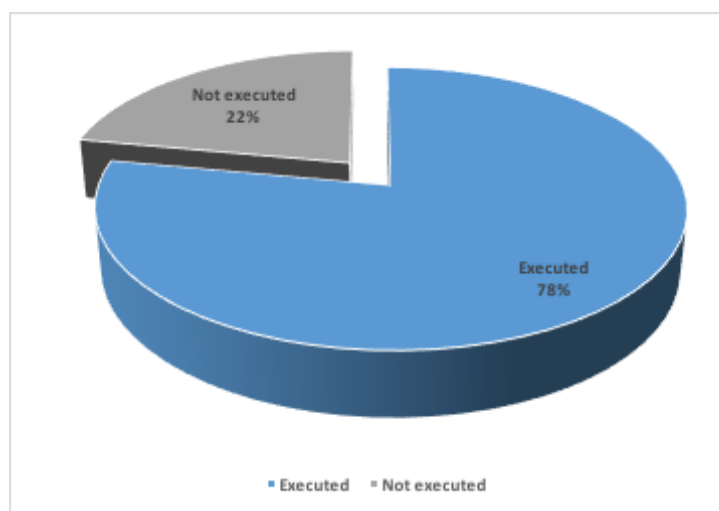
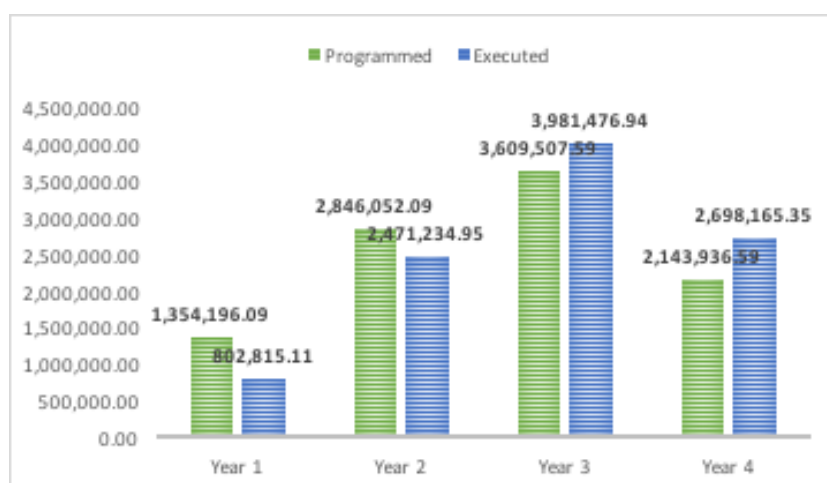


Figure 3. Percentage executed by the Program at mid-term with respect to what was budgeted.

60. The accumulated budget of USD 4,200,248.18 for the mid-term of the Program represents 42% of the total USD 9,953,692.35, i.e. in general terms the current implementation of the ENI has reached 33% of all planned outputs to complete the 100% objective in Year 4, the last year of the Program.



Note 1: The amounts programmed for the four years of the Program are those included in the original agreement with the AF.

Note 2: The amount to be executed in Year 3 is the amount foreseen by ENI, according to the PPR.

Note 3: The amount to be executed in Year 4 corresponds to the remaining value of the USD 9,953,692.35.

Figure 4. Annual budgets programmed and executed. See footnotes.

61. Figure 4 shows the budget execution already carried out (years 1 and 2) compared to that projected by the ENI to conclude the Program in Year 4. As indicated in the footnotes to the graph, the ENI has foreseen that in Year 3 the largest investment of the Program will be made with the construction of the 7 planned community aqueducts.

4. PROGRAM EVALUATION RESULTS (FINDINGS)

4.1 Relevance

62. Both from the interviews conducted and from the evaluator's direct observations, the Program contributes directly to the UN Sustainable Development Goals (ODS), specifically to the following: (i) ODS 6 - Water and Sanitation; (ii) ODS 15 - Climate Action; (iii) ODS 2 - Zero Hunger; (iv) ODS 5 - Gender Equality (promoting the participation of women in productive activities and in the decisions of the Board of Directors of their ASOCAR and the improvement of the quality of life and the use of their time previously used to fetch water; (v) ODS 3 - Health and Welfare (reduction of waterborne diseases by increasing drinking water management and reducing parasitosis due to lack of sanitation). Indirectly, the Program would be contributing to: (i) ODS 1 - End Poverty; (ii) ODS 11 - Sustainable Cities and Communities; (iii) ODS 12 - Responsible Production and Consumption (of water and natural resources); and (iv) ODS 10 - Reducing Inequalities (rural vs. urban, men vs. women).
63. Similarly, in the documentary evidence and interviews, it is recognized that in addition to the fact that IDDI has emphasized for years a line of work on climate change, risk and resilience, also as a ENI it has committed to the mandate of the Adaptation Fund (AF), channeling its funding to projects that help vulnerable communities in the Dominican Republic to develop, adapting and building resilience to the effects of climate change. It also assumes the implementation of this Program under the guidance of the 15 principles that guide implementing entities through the formulation, execution and monitoring of projects and programs approved by the AF, with respect to Gender and Social and Environmental policies.
64. The Program is regionally aligned with several axes and lines of action of SICA's comprehensive social policy. Specifically with: Axis 3, line of action e); Axis 4, lines c), h) and j); and Axis 5, lines e) and f).³⁰ Nationally, the Program is included in the Action Plan of the National Climate Change Strategy, and responds to the Transversal Strategic Lines: T 1 - Political-administrative management of the climate change issue; T 2 - Climate risk reduction; T 3 - Intersectoral and interinstitutional coordination; T 6 - Communication, information and education; and T 7 - Integration of the gender perspective, as well as to several of the Strategic Axes of the National Adaptation Plan for Climate Change³¹. For these axes, called sectors by the updated NDC³², the document establishes 37 priority measures, and this Program contributes with its activities and products to six (6) of them: measures 1, 2 and 4 of the Water Security sector; measure 10 of the Food Security sector; measure 17 of the Resilient Cities sector and measure 21 of the Ecosystem, Biodiversity and Forests sector. All these aspects are framed by the National Development Strategy (MEPYD, 2012)³³, especially in its Axis 4. To have an environmentally sustainable production and consumption society that adapts to climate change.

³⁰ PSIR-SICA (2020). Política Social Integral Regional del SICA 2020-2040. Consejo de la Integración Social Centroamericana (CIS), Secretaría de la Integración Social Centroamericana (SISCA), noviembre 2020, Panamá. <https://eurosocial.eu/wp-content/uploads/2021/05/Politica-Social-Integral-Regional-del-SICA-2020-2040.pdf>

³¹ Fundación Plenitud (2016) op. cit., pp. 7, 8.

³² NDC-RD (2020) op. cit., pp. 41-44.

³³ MEPYD (2012) op. cit., p. 26.

4.2 Effectiveness (achievement of results)

Achievement of the results proposed in the Program's Theory of Change.

65. In the period under evaluation, the results obtained are in accordance with the planning and goals established, taking into account that the first months of the project were oriented to the dissemination and contacts for the implementation of the program, as well as the training and structure of the technical staff and then, the design phase began, which was complemented with the identification of needs in the field and the determination of the knowledge gaps of the communities and local actors in relation to the CC.
66. The work at the local level to strengthen the social fabric is remarkable and is the basis for sustainability over time, given that local involvement in planning, decision making and monitoring is essential for the program to have the desired impacts. The work of the UGP has focused on prioritizing the social fabric and its strengthening, both in terms of capacities and knowledge of useful tools for the integrated management of water resources, as an adaptation measure and to improve climate resilience in the target communities.
67. At the level of local governments (municipal and provincial) there is an integration and participation work, both in the planning and monitoring of activities, as well as a close relationship with the program execution technicians for the implementation of activities.
68. In the field interviews, the interviewees stated that the design of the water and sanitation infrastructure works to be carried out in the target communities has been consensual (Photo 4) and there has been a direct incorporation in the planning and decision making, For this purpose, the ASOCARs have been formed, which were elected by the full members of the community and are responsible at this stage for following up on the actions developed by the program for the design, construction and operation of the water and sanitation systems, as well as the care of the networks and micro-watersheds from which the vital liquid is obtained.
69. After an extensive study to determine the areas of intervention for the development of soil cover improvement and care of micro-watersheds that support the water and sanitation systems described in the program, priorities were established and with the advice of the ES, an action plan was designed to initiate reforestation, agroforestry and the implementation of demonstration plots (Photo 5) in priority areas to cover the objective of 2,722 hectares presented in the program. In the field interviews, it was observed the interest of the beneficiaries to participate in these activities and to be able to collaborate to make them sustainable.
70. The response of the provincial and municipal governments to the incorporation of the CC Adaptation Committees has been very well received and at the time of writing this report, a proposal was presented for discussion on the roles and work plan of the members of this committee at the provincial and municipal levels, with a view to its implementation in the short term and for it to be a pilot program scalable to the national level. The topic of discussion centers on the creation of a figure that can function autonomously or incorporate it into the Prevention, Mitigation and Response Committees that are legally established in Law 147-02 on Risk Management of the Dominican Republic, which would reinforce the preventive activity carried out by this management body.



Photo 4. Focus group in Arroyo Higüero



Photo 5. Delivery of seedlings for agroforestry demonstration plots. San Francisco community.

71. For capacity building, the ENI developed the Communication-Dissemination-Training (CDC) strategy, which is aimed at filling the usual gaps in programs and projects, where lessons learned are not shared or the achievements obtained by the beneficiary groups are not disseminated so that they can be replicated or scaled up at the local or national level. This strategy has made it possible for beneficiaries who receive training to share their positive or negative experiences and share them with other groups.
72. To reinforce the CDC and incorporate gender as a cross-cutting issue in all training and capacity building processes, the Knowledge Toolbox has been designed, which compiles methodologies, materials, studies and dissemination material, which will be available to communities and the general public through the web page, which is currently under construction and which, according to its designers, will be available as of the first quarter of 2022.

Overall effectiveness of the Program

73. Based on the logical framework and in spite of the reprogramming caused by the COVID 19 pandemic, the effectiveness of the program to date is optimal, given that compliance with the goals set for the period evaluated has been demonstrated. Of course, taking into account the implementation based on activities and results, not at the impact level until the infrastructure works, which cover the largest budget and time of the project, are completed and it can be measured how the social network has applied water resource management in a comprehensive manner to increase resilience and adapt to CC.

4.3 Efficiency

Compliance with the program budget and complementarity with ongoing processes.

74. In general, during the period under evaluation, the processes developed have been executed under a cost structure proportional to the performance, as was analyzed in section 3.4. The Table 5 shows an evaluation of efficiency by analyzing compliance with the schedule established in each mid-term POA, in terms of the activities required to achieve the products.

Table 5. Analysis of efficiency in the achievement of the Program's outputs.

Component 1: Community-level implementation of climate resilient water resource management activities			
Outcome 1. Climate resilient water resources management has been implemented in 30 small rural communities of San Cristóbal.			
Output 1. 1 Community water supply and management plans are developed for 7 municipalities to incorporate the risks related to climate change			
Activities	Comments	Advance	Efficiency
1.1.1 Workshops for Identification of Needs and Knowledge of the CC	Workshops were held with the involvement of beneficiaries and local stakeholders.	85%	
1.1.2 Support to the communities in the program's ongoing evolution and implementation of the plans.	A direct relationship is maintained with beneficiaries and local stakeholders; each community has its own representatives and the authorities participate actively.	70%	
1.1.3 Monitoring and follow-up visits for the strengthening of the social fabric	Activities are permanently monitored through the Community Affairs Coordination Unit of the UGP.	60%	
Output 1.2 The supply of drinking water under climatic impacts (i.e., droughts, heat waves, etc.) in 30 rural communities has increased.			
Activities	Comments	Advance	Efficiency
1.2.1 Design and construction of water supply and storage infrastructure in 7 pilot communities.	The first design phase has been completed, preparations have begun for the infrastructure works for 3 of the 7 water and sanitation systems.	40%	
1.2.2 Training communities in the use and maintenance of water storage and supply systems.	The 7 ASOCARs have been formed, one in each of the beneficiary communities.	100%	
1.2.3 Sustainability strategies for the use and maintenance of the program's infrastructure works through the creation of ASOCARs.	The ASOCARs have been legally established and the legal requirements for their operation and administration have been met.	40%	
1.2.4 Linking vulnerable upstream and downstream communities through climate-informed management of springs and water source protection	Studies have been carried out and local stakeholders have been involved to learn about the management of the Haina and Nizao river basins under the Integrated Water Resource Management scheme.	65%	
Output 1.3 Measures for water conservation under climate impacts (i.e., management of micro-basins and re-afforestation programs, etc.) for 2,722 hectares have been implemented.			
Activities	Comments	Advance	Efficiency

1.3.1 Design of reforestation/conservation schemes in the pilot intervention zones of the project.	Preliminary studies were developed jointly with the Ministry of the Environment.	75%	
1.3.2 Mapping and updating cartography of intervention zones for conservation activities.	Studies were carried out to determine the action polygons and priority areas for program implementation in the province of San Cristóbal.	100%	
1.3.3 .Implementation of Climate Impact Conservation Measures based on the studies and analysis of the pilot project sites.	Reforestation schemes based on the technical studies have been developed in the initial stage in the priority watersheds and the process of implementing agroforestry has begun through the management of demonstration plots in 7 selected communities in the province.	35%	
Component 2: Capacity building and strengthening of key institutions and communities to manage climate change-related risks over the long term.			
Outcome 2. The technical capacity of communities and institutions to assess impacts, vulnerability and adaptation needs, in accordance with their respective competencies, has increased.			
Output 2.1. A set of manuals and other materials on best practices for community water management is developed, including a fully operational website			
Activities	Comments	Advance	Efficiency
2.1.1 Compilation of experiences, materials and methodologies through the elaboration of a Toolbox for strengthening local stakeholders in Integrated Water Resource Management for CC adaptation and resilience	A methodological outline was prepared for the implementation of a toolbox that compiles all the didactic and informative material of the project, as well as the systematization of experiences and lessons learned.	60%	
2.1.2 Design of the Training, Dissemination and Communication Strategy on CC Adaptation and Resilience measures.	A communication strategy based on Training-Dissemination-Communication to strengthen capacities and disseminate lessons learned was designed and is in the implementation phase; this phase will be reinforced in years 3 and 4 (rescheduled due to the measures taken because of the COVID 19 pandemic).	55%	
Output 2.2. A Provincial Committee for Adaptation to Climate Change established in San Cristóbal.			
Activities	Comments	Advance	Efficiency
2.2.2 Implementation of the CC Knowledge Platform and Adaptation and Resilience Measures.	Tools have been developed for the analysis of information on the legal and reference frameworks to support the activities of the Provincial Working Group for Adaptation to Climate Change.	85%	
2.2.2 Collection and analysis of information (legal, regulatory and reference framework CC).	A draft proposal for the implementation of Provincial Working Groups for Climate Change Adaptation was prepared and shared with the entities responsible for providing the legal and structural framework for proposal.	40%	
2.2.3 Formation and/or strengthening of the	Two (2) Technical Forums have been held with the participation of representatives of government, private	34%	

Technical Committees for the monitoring of adaptation to CC.	enterprise, academia, professionals in the area, communities and other interested entities to discuss the issue of adaptation to CC.		
Output 2.3 Learning platforms and design of a system for integrating climate change related risk into community water resource management and institutionalized livelihood activities in 8 municipalities.			
Activities	Comments	Advance	Efficiency
2.3.1 Design and Reproduction of Toolkit Material for local stakeholder strengthening.	It is in the implementation phase, and it is being executed continuously throughout the program.	45%	
2.3.2 Implementation of a communication strategy.	The communication aspect in this period of the project has been moderate, in order not to create expectations about actions that may have variations in its execution, due to the consequences still in force of the COVID 19 pandemic that could affect the planned progress. Several communications have been published to disseminate periodic information on the Program through various media and social networks.	60%	

Color code:

Green = Achieved	Yellow = On track to be achieved	Red = Not on track to be achieved
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4.4 Sustainability

Socio-political sustainability

75. The issue of climate change in the Dominican Republic is currently a current topic on the agendas of advocacy and actions promoted by civil society, the social responsibility of the business sector and the policies of the Dominican state. Within the topic, the preponderance of adaptation to climate change has been understood, resulting in numerous initiatives that seek beneficial changes for urban and rural communities in the country, on their vulnerable services. The Program, with its provincial approach, sets a milestone; few programs have been implemented looking at the province as a particular territory. In addition, it addresses gaps identified for years regarding access to drinking water in the homes of several of its communities with "very high" climate vulnerability, while strengthening social cohesion with training for water governance and increased tree cover through reforestation and establishment of agroforestry systems under IWRM criteria. Aspects that respond to the prioritized sectors of the NDC.
76. At the beginning of the post mid-term, when the advances achieved in the management of COVID 19 have allowed more frequent field work and a greater social approach, the current crops of 28 plots were selected, geo-referenced and inventoried, four per community in the seven (7) focal communities where aqueducts will be built. In these plots, according to the agreements with the community members, a process of conversion to a "demonstration plot" has already begun, with the planting of complementary perennial crops and training practices under the "learning by doing" criterion. This line of action of the Program should be politically reinforced by increasing

the participation of the Ministry of Agriculture in strategic and operational actions, jointly with MIMARENA, INAPA, the CC/CGs and the people of the community.

77. Although the acceleration of the construction of aqueducts was a demand reiterated in all the focus groups interviewed during the EMT information gathering, in some communities landowners have contributed land for these works, a behavior that speaks favorably of the level of community commitment to the PASC and confidence in its products and benefits. However, it is required that the negative results of the determinations of some hydrological and/or geological factors made in the field are communicated in a more effective way to the people of the community, since not all have the same level of understanding and interpret the delays for these reasons as slowness in providing a solution to their need for water as a peremptory aspect. This consideration should be addressed quickly because it makes it difficult for these people to conceptualize the fundamental concept that the aqueduct must offer a guaranteed service in order to effectively become a resilience factor in climate adaptation.

Financial sustainability

78. In the PASC there are two types of investments with the potential to generate self-financing. These are the aqueducts, which with the water available in the houses can develop small family businesses (e.g. beauty salon, food service, ice cream and desserts, car wash, etc.), which, if well managed and having a target market that ensures a good volume of sales, could be self-financing. The other aspect is that of forestry and agroforestry plots, where from the fifth year in the former and from the third to fourth year in the latter, income can be generated to make these livelihoods self-financing. However, three factors are important in all cases: working capital, the market and the size of the plots. Very small plots are generally only for subsistence.
79. This leads to the observation that some strategies for the post-program sustainability of initiatives contemplated in the program, or derived from them, are not clear. Having started reforestation activities and the establishment of agroforestry demonstration plots with the beginning of the third year of the Program, it is convenient to answer, for example, these questions: how will the maintenance of the plantations in the forest and agroforestry lands be financed until they allow the first harvests and income from the sale of their products? how will the follow-up of the integrated management plans of watersheds related to the priority areas of reforestation and aqueducts be financed?
80. The PASC has contemplated the establishment of aqueducts and their sustainability has been foreseen through the ASOCARs for the administration and maintenance of the aqueducts, through a payment fee agreed upon in each community. In the case of forestry and agroforestry plots, the Program also provides for their establishment, but not their maintenance until they reach at least the first productions (five years for forestry and three years for agroforestry plots). Although beneficiaries are provided with a Tool Box that will be available in a platform in the second half of the PASC implementation, it is considered important, perhaps under a partnership, leverage or scaling-up scheme of this Program, to implement a micro-credit or community savings group component that will serve as financial support for the various enterprises, which, as already mentioned, will surely arise from the products and results of this Program.

81. Other consolidating elements of financial sustainability are: accompaniment to entrepreneurship, understanding and use of the market concept, the ability to manage simple accounting (income, expenses and profit) and the capacity to associate to do business, especially small farmers. Although these are important ingredients for financial sustainability, they become more necessary for the post-program stage. However, as the aqueducts become operational, training related to the above topics could be very timely.

Sustainability of institutional frameworks

82. Existing institutional processes and structures are considered in the implementation of the PASC. In fact, the executing partners not only facilitate the operation within the institutional mandates, but also guarantee their fulfillment, since MIMARENA is in charge of environmental and natural resources policy and is the facilitator of climate change policy, while INAPA is responsible for providing drinking water supply services to the urban, peri-urban and rural population, as well as the collection, transport and final disposal of sewage. However, the agroforestry initiatives sponsored by the Program are intertwined with the institutional mandates of the Ministry of Agriculture, which is part of the CDP; but no formal operational schemes have been defined to interrelate the structures of this Ministry with the promotion of agroforestry plots developed under the Program. These livelihoods fall into the category of sustainable livelihoods proposed among the priorities identified by Izzo (2021)³⁴, to achieve greater effectiveness of interventions in the area of climate change adaptation and risk management in the country.
83. The PASC has also considered prevention, mitigation and response in community risk management by defining a roadmap for the formation of the Technical Committees for Adaptation to Climate Change (CTACC), as inter-institutional articulation and citizen participation entities to follow up on the commitment of the National Climate Change Strategy³⁵ that are planned to be structured in the second half of the Program. Through the functionality of the CTACCs, the integration of risk management is operationalized as part of the climate change adaptation strategies contained in the National Climate Change Adaptation Plan for the Dominican Republic 2015-2030. Based on the documentation of the Roadmap and consultations with key stakeholders, the elements to be taken into account for the incorporation of the CTACCs into the National System for Disaster Prevention, Mitigation and Response, the National Risk Management Plan, the National Emergency Plan and the National Integrated Information System, linking them according to their geographic demarcations to the Regional, Provincial and Municipal Committees for Disaster Prevention, Mitigation and Response are available^{36,37}.

³⁴ Izzo, M. (2021). Revisión e inventario de documentos clave relacionadas a la adaptación/mitigación al cambio climático y la gestión del riesgo en la República Dominicana. Aumento de la Resiliencia Climática, Programa de Gestión Integral de Recursos Hídricos y Desarrollo Rural, Provincia de San Cristóbal, República Dominicana. Fondo de Adaptación-IDD-IMMARENA-INAPA, Santo Domingo, p. 39.

³⁵ Volcán Calderón. M. (2021). Hoja de ruta para la Estrategia de conformación de los Comités Técnicos de Adaptación al Cambio Climático (CTACC). Aumento de la Resiliencia Climática, Programa de Gestión Integral de Recursos Hídricos y Desarrollo Rural, Provincia de San Cristóbal, República Dominicana. Fondo de Adaptación-IDD-IMMARENA-INAPA, Santo Domingo, pp. 5, 6.

³⁶ Volcán Calderón. M. (2021). Consulta Comunitaria de la Estrategia de Conformación de los Comités Técnicos De Adaptación al Cambio Climático (CTACC) en la Provincia San Cristóbal de La República Dominicana. Aumento de la Resiliencia Climática, Programa de Gestión Integral de Recursos Hídricos y Desarrollo Rural, Provincia de San Cristóbal, República Dominicana. Fondo de Adaptación-IDD-IMMARENA-INAPA, Santo Domingo.

³⁷ Ley 147-02 (2002). Sobre Gestión de Riesgos. Gaceta Oficial 10172. Santo Domingo, República Dominicana, 22 de septiembre de 2002. https://defensacivil.gob.do/transparencia/images/docs/base_legal/LEY-147-02-Y-REGLAMENTO-874-09.pdf

Environmental sustainability

84. In both the design and the actions implemented, the PASC has adopted the concept of integrated water resources management as an intentional process that improves services when ecosystems are conserved and restored. Consequently, climate vulnerability is reduced with the implementation of measures that contribute to environmental improvement by making sustainable use of natural resources. In this sense, the Program has advanced in local planning at the level of municipal watersheds that feed the community aqueducts that are being built. Based on the prioritization studies sponsored by the Program³⁸ itself, reforestation actions have been initiated to reduce erosion, the risk of gully formation and landslides, and to increase the replenishment of aquifers. Similarly, analogous forestry or agroforestry demonstration plots have been established, which in addition to contributing to the control of environmental risks of bare soils, also contribute to crop diversification, increased income and climate resilience.
85. Since both the start of the construction of the first of the seven (7) programmed aqueducts, as well as the reforestation campaigns and the establishment of the agroforestry demonstration plots took place during the first two months after the mid-term period, while this EMT was being developed, the environmental safeguards turned out to be little known by the local stakeholders and beneficiaries. In practice, the application of these safeguards and the mitigation of negative impacts were not necessary during the first two years of the Program, since no actions that could disturb the environment were implemented, and it does not seem that those already started or planned for the future could have negative impacts. However, among the contents of the Toolbox to be opened in a virtual platform as in the complementary actions to be implemented within Component 2, training related to environmental safeguards and the analysis of negative impacts requiring mitigation are included.
86. As has already been expressed in the comments on financial sustainability, PASC initiatives will most likely trigger other projects external to the PASC, where new actors and funders could be involved. Ongoing or future projects, whether private, governmental or municipal, may develop and even intertwine with those of the Program and the positive or negative environmental impact and sustainability, which will depend on the particularities of such projects, will have to be assessed on a case-by-case basis outside the scope of this Program.

Replication

87. The results of the Program, based on its innovative design to increase climate resilience and integrated management of water resources focused on a single province, have a high potential for replication, since some 13 provinces out of the 31 plus the National District, that is, 40% of these territorial units, present high to very high vulnerability³⁹.

³⁸ Romano Grullón et al (2021) op. cit., pp. 188-198.

³⁹ Izzo et al. (2012). Op. cit.

4.5 Factors influencing program outcomes

Preparation and readiness

88. At the beginning of the program, the start-up phase was carried out where the technical team was oriented on the objectives and goals and the scope was disseminated to local stakeholders and entities involved, allowing for a clear focus on the vision of the program and the need to comply with the requirements established by the AF in terms of indicators and compliance with the PASs and the PG.
89. The program has an POA that is reviewed every six months and involves the entire management team, planning activities jointly with local actors and stakeholders. The POA is evaluated by the monitoring unit, which follows up on the development and progress of programmed activities and ensures compliance with the SFP and the PG, making the corresponding suggestions and/or recommendations based on periodic field visits.
90. Semiannual reviews of the POA are shared with the EEs and approved by the CDP, where progress is evaluated and the Monitoring Unit's recommendations are taken into account.
91. In the interviews conducted in the field, there has been a willingness on the part of local governments and other stakeholders to participate and collaborate in the implementation of the PASC. Some gaps due to lack of information or details were raised in relation to the start of the infrastructure works, due to the need for them, although the progress of the design stage is evident.

Program execution and management

92. Through the UGP, a synergy has been achieved between the ENI and the EEs through its focal points, complementing efforts for the development of activities.
93. The social fabric has been strengthened, with the involvement of communities in the planning and execution of activities designed by the program, as well as in decision-making and contributions based on local knowledge. Suggestions from local stakeholders are taken into account, and mailboxes for complaints, suggestions and claims have been installed and are visible in the target communities and at meetings and workshops.
94. Program execution, despite the COVID 19 pandemic, has had an optimal execution thanks to the collaboration of local actors and beneficiaries who, during the months when transit restrictions and social distancing were applied, remained in contact with the UGP, following up on the activities programmed in the POA.
95. In the interviews conducted with the coordinators, focal points and other members of the UGP, they expressed their satisfaction with the management and direction of the program, emphasizing the communication and participation processes for decision making and the successful management policy that the PASC has had so far.

Communication and public awareness

96. The development of the Communication-Dissemination-Training strategy has allowed for a participatory approach to communities and key stakeholders and to involve them in the PASC implementation process. In this sense, the identification of needs and gaps was the starting point to focus the strategy and reinforce the communities' knowledge of the impacts of CC and the need to adapt and become resilient, as well as to contribute to the improvement of the environment and ecosystems from a holistic vision.
97. The communication aspect in this period of the project has been moderated, due to the fact that the design phase is being developed, which will define the actions to be implemented in the coming years, based on the aqueducts. The purpose of the moderation has been to avoid creating expectations about actions that may have variations in their execution, especially taking into account the consequences of the COVID 19 pandemic that could eventually affect the planned progress. Several communications have been published to disseminate information related to the Program and especially with the medium-term results. These publications have been made through various media and social networks, with the aim of disseminating the results achieved on a regular basis.
98. Through Technical Forums that have been developed during the first and second year, the ENI managed to involve more than 120 technicians and professionals, from EEs, ministries and state institutions, municipalities, NGOs, academia, entrepreneurs, beneficiaries, etc., where apart from the presentation of the PASC, topics have been addressed that allowed a priority focus on the need to adapt to CC and to seek synergistic mechanisms that involve all sectors to increase climate resilience.

4.6 Monitoring and Evaluation

99. The M&E system implemented by the monitoring unit has focused on monitoring the development of the activities planned in the AOP and following up on the technical team's reports throughout implementation to monitor compliance with the SFPs, GPs and indicators.

At the beginning of the project, in the Inception Phase, the technical team was trained in report writing based on project indicators and objectives, which was a strength in the review of the Logical Framework and Theory of Change to establish execution priorities and base management indicators on the activities to be implemented during the Program.

101. Monitoring is carried out periodically and is based on field visits and follow-up of activities, as well as achievements, delays and reprogramming, which are consulted and suggestions and recommendations are received for better management.
102. Regarding the progress and fulfillment of the indicators in the mid-term, in spite of the reprogramming carried out by the COVID 19 pandemic, the evaluator has found a purpose of optimization towards the achievement of what was established in the POAs and the program objectives (Table 6).

Table 6. Overall rating of the Mid-Term Evaluation

Score: 1-Very low, 2-Low, 3-Medium, 4- High, 5- Very High	
Programme implementation and management	
Aspect evaluated	SCORE
Project contribution to AF's goals	5
Project contribution to AF's impacts	5
Project contribution to AF's objectives	5
General rating:	Very High
Programme Performance	
Aspect evaluated	SCORE
Relevance	4
Effectiveness	4
Efficiency	5
General rating:	High
Programme Execution and Management	
Aspect evaluated	SCORE
Programme design	4
Baseline	4
Indicators	4
Alignment of the programme with national policies for CC adaptation, strategic plans, SDGs and NDCs	5
Progress of activities under Component 1 (*)	3
Progress of Component 2 activities (*)	4
Budget and implementation of activities	4
Monitoring and evaluation system	5
Programme implementation	4
General rating:	High

(*) Delays and rescheduling due to the COVID 19 pandemic were taken into account.

5. LESSONS LEARNED AND RECOMMENDATIONS

Highlights of the Program

- **Strategic vision of the ENI:** IDDI based on its experience, endeavored to carry out a solid preparatory phase, assuming the design of systems to identify environmental and social impacts related to the PASC and to identify gender inequalities throughout its life cycle, information that served as a reference for the implementation of actions that ensured compliance with the Environmental and Social Policies and the EF's Gender Policy, while identifying guiding characteristics of the communities for strengthening the social fabric. This ensured that monitoring and surveillance mechanisms were in place to avoid causing damage or impacts to the target communities and that the communities themselves could be vigilant in ensuring compliance with the policies.
- **Good practices adopted by the ENI:** The Guidelines for the Implementation of Information and Transparency Mechanisms for the Management of Programs and Projects of the Adaptation Fund in the Dominican Republic, have served as a basis for ensuring transparency in project implementation and has been a guide for beneficiaries to confidently access information, request additional information and make suggestions and complaints about project performance.
- **Implementation efficiency:** Thanks to the good foundation established on the basis of the two preceding points, it is possible to highlight that despite the holding of national elections in 2020, with the subsequent change of authorities, as well as the development and impacts of the COVID 19 problem in the country, the tenacity of the executing team and the participatory spirit of local authorities and community members, identified with the importance and need to achieve the objectives of the PASC within its provincial approach, allowed an optimal efficiency in the products and objectives planned for the first two years of the Program.

Table 7 shows the main lessons learned from the reflection on the Program implementation. In addition to generating knowledge on positive or negative aspects of the experiences obtained to date, they also give rise to recommendations to take advantage of opportunities for improvement in the second half of the Program, especially in terms of management, financial and environmental sustainability, environmental and social policy and gender equity.

Table 7. Lessons learned and recommendations

LESSONS LEARNED	RECOMMENDATIONS
<p>Despite the limitations and restrictions caused by the COVID-19 pandemic, community collaboration and the efforts of community focal points, governments and local stakeholders were evident: (1) training activities for climate change adaptation were rescheduled; (2) water, geological and topographical studies were prepared, which will allow the construction phase of the aqueducts to begin in the third quarter of 2021; (3) ASOCARs (Rural Aqueduct Community Association) were formed to monitor, manage and ensure the sustainability of the drinking water systems to be built; (4) during the EMT, it was possible to observe the expression of a collective conscience to ensure the preservation of water sources and the commitment to participate in the integrated management of water resources.</p> <p>However, it is a general perception of the communities, sometimes hopeless, that the construction of aqueducts is being executed slowly.</p>	<p>Although the provision of drinking water to the 30 communities connected to the 7 that will be provided with aqueducts is one of the measures (not the only one) contributing to the improvement of climate resilience, it is important for the maintenance of trust and good progress of the participatory processes that have driven the actions of the Program, it is of utmost importance that the implementing team makes an additional effort to accelerate the construction.</p> <p>Likewise, this opportunity should be used to refresh the local imaginary (sectoral and community stakeholders) and put into practice, when necessary, the safeguards of the Environmental and Social Policies of the Adaptation Fund.</p>
<p>Documentary review and EMT interviews account for workshops conducted by PASC for training geared towards climate adaptation and increasing climate resilience; but not all communities understand why they should increase their resilience to climate change and generally interpret the objective of the Program to be the construction of aqueducts, which is a felt need by all beneficiary communities.</p>	<p>The PASC should emphasize in the activities it carries out directly with the communities the conditions of vulnerability to hydro-climatic events, trying that the community people themselves expose and analyze the historical frequency of the same, how they have been affected by river swells, floods, isolation of their communities making it difficult to access medical care centers and transportation of people, products and food, etc., in such a way that they conceptually associate these effects with the need to develop a permanent personal and group attitude of increasing their resilience to climate risk, which includes the availability of drinking water as one of its elements; but not the only one.</p>

Cont. Table 7. Lessons learned and recommendations

LESSONS LEARNED	RECOMMENDATIONS
<p>It is evident that the Program's activities have promoted social cohesion in each focal community, as well as inter-community integration. The practice of holding monthly meetings with community assemblies, which include local authorities, has been favorably appreciated by the community members themselves as a participatory mechanism to review progress, coordination and open expression of opinions. However, of the seven focal communities, the Algarrobo community does not agree with this.</p>	<p>The unique characteristics of the Algarrobo community require special attention from the ENI and the EEs. While in all the communities there is an integration of men and women in the coordination meetings and concerted activities of the Program, in this community only women participate. It is the only ASOCAR where all seven members of the board of directors are women. According to direct interviews, this happens because men work outside the community.</p> <p>It is understood that this condition represents a bias in their perception of the participatory processes considered adequate by the other communities, due to the fact that men receive/transmit information from the Program indirectly, not in person. Therefore, it is recommended that the UGP should try to get closer to men, enabling interviews and integrative meetings on weekends, in order to progress in a true social cohesion of this community, necessary for the receptiveness and good use of the benefits promoted by the PASC.</p>
<p>PASC does not show a clear strategy for the post-Program financial sustainability of the initiatives sponsored by the PASC. Regarding the aqueducts, this sustainability has been designed based on INAPA's experience as executing partner, through the ASOCAR, which have been organized according to the protocols and experiences already tested in several communities in the country, to manage the aqueducts and ensure their maintenance based on the collection of a fee agreed with the users. However, no consideration has been given to how to help the financial sustainability of the enterprises that will most likely be generated from the availability of water in the homes. The same occurs with the forest and agroforestry plots (farms) sponsored by the PASC as sustainable livelihoods that at the same time contribute to the conservation of water, soil and biodiversity of the micro-watersheds that feed the aqueducts. Linkages with other provincial programs and projects and micro-credit sources could contribute to post-Program financial sustainability.</p>	<p>Community people entrepreneurs of small businesses from the water received will require administrative and commercial training, as well as some working capital. Likewise, forestry and agroforestry plantations will require financial resources for their maintenance until the trees and crops reach their biological state of production and harvest. The PASC has been an opportunity for IDD-1 to be part of the validation process of the provincial development plan, the coalition achieved with academia and municipalities, as well as the synergy with other ongoing IDD-1 processes. This participation constitutes a potential to explore the possibility of synergies or leverage with projects of other provincial institutions, and to connect or design support actions for microcredits that contribute to the sustainability of the aforementioned initiatives.</p>

Cont. Table 7. Lessons learned and recommendations

LESSONS LEARNED	RECOMMENDATIONS
<p>The participation of local stakeholders (governments, institutions, private sector and community) in an integrated and synergistic manner and the understanding of the need for joint actions to address climate change, where ecosystem-based adaptation is an important factor in the commitment and empowerment achieved during project implementation.</p> <p>At the national level with the Technical Forums developed in the first and second year, the ENI managed to involve technicians and professionals, from the EEs, ministries and state institutions, municipalities, ONGs, academia, entrepreneurs, beneficiaries, etc., where apart from the presentation of the Program, the need for adaptation to CC and the search for synergistic mechanisms that involve all sectors to increase environmental sustainability and climate resilience were addressed with a priority approach.</p>	<p>From this learning arises the importance of strengthening relationships and links with local actors, promoting greater visibility of their achievements, and that they themselves can analyze and self-assess their potential as part of a process that changes the current status quo with the application of ecosystem-based adaptation measures (EbA). On the other hand, continue with the development of Technical Forums aimed at promoting a national EbA strategy that includes (1) the development of an inventory of national institutions that implement this type of actions, (2) the definition of a computerized collection structure for national documents and projects of this type, and (3) the creation of a team to analyze existing proposals for public policies related to the application of EbA as a mechanism for adaptation to CC, contribution to environmental sustainability and climate resilience.</p> <p>These actions would also improve the Program's dissemination products, which so far have not been accompanied by a sustained dissemination strategy.</p>
<p>In all the meetings held with the communities, it was possible to observe not only the presence of women and men in approximately similar numbers, but a free gender participation, without inhibitions and equally valued by the members of the community assemblies. When questioned about this, they expressed that thanks to the workshops conducted by the Program, they have reached a better understanding of the importance of developing a collaborative spirit of common interest in the family, with the contribution of both men and women and their children, which they have made an effort to practice.</p>	<p>In order to optimize this model, it is recommended the exchange of experiences between communities and the identification of the benefits obtained with its practice, both in terms of family and livelihood management, sustainability and risk management.</p> <p>Although the collaborative family spirit has been expressed, which is a support for sustainability, it is advisable to stimulate gender complementation not only in ASOCAR, but also in the training and practice of forest and agroforestry plots.</p>

6. APPENDICES

Appendix 1. Evaluation Questions: Interviews and Focus Groups

Aspectos Generales del Proyecto y sus componentes
Diseño del proyecto/impacto:
¿El proyecto está haciendo un progreso satisfactorio hacia el impacto previsto en mi comunidad?
Objetivos / indicadores:
¿Están claros los objetivos y alcance del proyecto? ¿Los objetivos identificados se adaptan a las necesidades de mi comunidad o deben ser modificados?
Implementación y ejecución:
¿Considera que ha sido eficiente y efectiva las modalidades de implementación y ejecución del proyecto?
¿Existe una división clara de roles y responsabilidades entre todos los actores del proyecto?
¿Hay una comunicación efectiva entre todos los grupos participantes? ¿Cuáles son las fortalezas y debilidades?
¿La comunidad ha sido informada sobre las políticas ambientales y sociales que deben tenerse en cuenta para el desarrollo del proyecto?
Correcciones:
¿Qué clase de correcciones/ajustes se deben hacer para mejorar el impacto en línea con los objetivos originalmente establecidos?
Lecciones aprendidas:
¿Qué particularmente ha funcionado bien y puede ser considerado como “mejor práctica”?
Apreciación del progreso hacia el logro de los resultados del proyecto
Relevancia:
¿Los resultados del proyecto dan herramientas a mi comunidad para la adaptación al CC en el país?
Efectividad:
. ¿Son los resultados del proyecto a medio término proporcionales a los resultados esperados (como están descritos en el Documento de Proyecto) y a los problemas que el proyecto pretendía abordar?
Eficiencia:
¿La implementación del proyecto está retrasada?
Aproximación hacia la sostenibilidad de los resultados del proyecto
¿Considera que en su comunidad las herramientas (capacitaciones / talleres y trabajos de grupales) han contribuido a la organización comunitaria para la sostenibilidad del proyecto?
¿Se ha tenido en cuenta el tema de género durante la implementación del proyecto? Políticas Ambientales y Sociales tratadas en el proyecto

Appendix 2. Key Stakeholders Interviewed

Nombre	Afiliación
Pura Casilla	Gobernadora Provincial de San Cristóbal
Teresa Disla	MIMARENA – Viceministerio Recursos Forestales
Esmeldy García	MIMARENA – Vulnerabilidad y Cambio Climático
Esther Reyes	INAPA – Directora de Desarrollo Provincial
Wendy T. Villar	Director Distrito Municipal de Medina
Ana Sofía Ovalles	CNCCMDL
Josefina Guante	Fundación H+D
Unidad de Gestión Programa-PASC	4 mujeres; 4 hombres
Equipo Técnico Programa	4 mujeres; 2 hombres
Grupo Focal	Taller Conformación CTACC en Medina (18 mujeres; 7 hombres)
Grupo Focal – Loma Verde	17 mujeres; 15 hombres
Grupo Focal – Castaño	15 mujeres; 6 hombres
Grupo Focal – San Francisco	8 mujeres; 7 hombres
Grupo Focal – Arroyo Higüero	10 mujeres; 5 hombres
Grupo Focal – El Fundo	9 mujeres; 6 hombres
Grupo Focal – El Caobal	6 mujeres; 9 hombres
Grupo Focal – Los Algarrobos	6 mujeres
Directiva ASOCAR – Loma Verde	5 mujeres; 2 hombres
Directiva ASOCAR – Castaño	5 mujeres; 2 hombres
Directiva ASOCAR – San Francisco	5 mujeres; 2 hombres
Directiva ASOCAR – Arroyo Higüero	4 mujeres; 3 hombres
Directiva ASOCAR – El Fundo	4 mujeres; 3 hombres
Directiva ASOCAR – El Caobal	4 mujeres; 3 hombres
Directiva ASOCAR – Los Algarrobos	7 mujeres

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