TERMINAL EVALUATION

Project: Strengthening Capacities of Rural Aqueduct Associations' (ASADAS) to address climate change risks in water stressed communities of Northern Costa Rica #00092255

Implementing Entity :
United Nations Development Program (UNDP)

Evaluation Team:
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PNUD ID: 5140
GEF ID: PIMS# 6945
Special Climante Change Fund/Climate Change Adaptation Focal Area

San José, Costa Rica

April 2021

EXECUTIVE SUMMARY

Project Information Table:

Project's name	Project: Strengthening Capacities of Rural Aqueduct Associations' (ASADAS) to address climate change risks in water stressed communities of Northern Costa Rica		
PNUD ID	5140	PIF approval date	October 15, 2014
GEF ID	PIMS #: 6945	Authorization date CEO:	January 14, 2016
ATLAS Business Unit, File N ° -ID of the project (Award # pro.ID)	00092255	Document signature date Project (ProDoc) (Start date of the project)	February 1, 2016
Country or Countries	Costa Rica	Project director hiring date	May, 2016
Region:	Chorotega Region and Huetar Norte Region (border cantons Guatuso, Los Chiles and Upala	Date inception workshop	August 8, 2016
AREA acting	Adaptation	End date of Midterm Review	April 30, 2021
Strategic objective of the area of action of the GEF	Climate Change	Expected completion date	June 30, 2021
Fiduciary fund (Indicate GEEF TF, LDCF, SCCF, NPIF)	SCCF	In case of revision new proposed completion date:	June 30, 2021
Executing agency	United Nations Development Program (UNDP)		
Other Partners in the execution	National Institute of Aqueducts and Sewers (AyA)		
Geospatial Coordinates			

Project financing		
PDF/PPG	at approval (US$M) at PDF/PPG completion (US$M	at PDF/PPG completion (US$M)
GEF PDF/PPG grants for project preparation	$100,000	$100,000
Co-financing for project preparation	$20,000 (in kind)	$20,000
PROJECT	at CEO Endorsement (US$M)	at TE (US$M)
[1] GEF Financing:	5.000.000,00	5.000.000,00
[2]UNDP Contribution:	450.000,00	450.000,00
[3]Government:	13.650.000,00	13.650.000,00
[4] Other partners:	4.808.949,00	4.808.949,00
[15] Total co-financing (2+3+4)	17.188.318,00	17.188.318,00
Total Project Funding (1+5)	20.894.191,00	20.894.191,00

Acknowledgment:

The evaluator would like to express her gratitude to the Project team and UNDP, not only for the support in the framework of the evaluation, but also for their commitment and enormous human quality to carry on a project that affects the lives of thousands of people in the country. Thanks to all the people who contributed with their time, experience, and ideas to this Terminal Evaluation process. I especially want to acknowledge the great and significant contribution of the consultant/evaluator Jehykin Umaña to carry out this evaluation. In a special, I would like to thank those people who work on managing water resources whom, only because of their vocation and commitment, give their work, love and even their financial resources voluntarily to guarantee the provision water (and therefore the sustainability of life) in their communities. Most of them are silent and voluntary heroes and heroines that contribute so that we can affirm that, in Costa Rica, people have generalized access to drinking water. It has been a professional and personal privilege to be part of a process of reflection on such a critical issue as water and climate change.

Project general description

Table 1. Evaluation Ratings Table

1. Monitoring & Evaluation (M&E)	Rating
M&E design at entry	Satisfactory (S)
M&E Plan Implementation	Satisfactory (S)
Overall Quality of M&E	Satisfactory (S)
2. Implementing Agency (IA) Implementation & Executing Agency (EA) Execution	**Rating**
Quality of UNDP Implementation/Oversight	Highly Satisfactory (HS)
Quality of Implementing Partner Execution	Satisfactory (S)
Overall quality of Implementation/Execution	Highly Satisfactory (HS)
3. Evaluación de resultados	**Rating**
Relevance	Highly Satisfactory (HS)
Effectiveness	Satisfactory (S)
Efficiency	Satisfactory (S)
Overall Project Outcome Rating	Highly Satisfactory (HS)
4. Sostenibilidad	**Rating**
Financial sustainability	Moderately Likely (ML)
Socio-political sustainability	Moderately Likely (ML)
Institutional framework and governance sustainability	Moderately Likely (ML)
Environmental sustainability	Moderately Likely (ML)
Overall Likelihood of Sustainability	Moderately Likely (ML)

Summary of findings and conclusions

- The project is highly significant for the strengthening of ASADAS, its adaptation capacity and the management of water resources in the country. It achieves its objective of: strengthening the ASADAS in organizational, infrastructure and management aspects, and increasing their capacity of adaptation and resilience to climate change. For some of the expected outcomes/outputs, the execution of the Project is significantly exceeded, in others (such as the implementation of the gender approach and the development of tools and technical guides) it contributes comprehensively to support community-based water management at the national level.
- The institutional, normative and regulatory context is complex and the community-based water management model must be rethought. The Project operated within this complex scenario that represents challenges not only for the execution of actions to support the sector, but also for ASADAS themselves in their duty of managing water at the local level.
- The project promoted comprehensive interventions with technical support and generated practical tools that have an impact at the country level (even though the intervention was located in two regions, the tools are useful for ASADAS nationally). The co-management work with the ASADAS at the local level, the timely transfer of tools and the strengthening of capacities was a successful intervention strategy that strengthens the sustainability of the actions and results obtained.
- The design of Projects, based on technical criteria, must be framed in a more realistic and coherent way in relation to the scope of the objectives, in terms of time and with the allocated resources for the project, in order to avoid challenges when implementing it. Being able to implement an adaptive management when executing the project in the field is key to achieving results. Even though the Project has some design limitations, the execution is highly satisfactory.
- It is paramount to think about the exit strategy of the Project in terms of its sustainability, (once the Project is finished, how the activities are going to be sustained? What are the sources for financing the activities? What installed capacities remain or should be reinforced?) from the very beginning, since there is a risk that the good results obtained during the project cannot continue. The government, witnessing the value of the results, should also be involved in the exit strategy and set a regular budget to follow up on the interventions. The Project proposed actions along this lines as exit

strategies and has worked closely with the AyA and the ORAC to give continuity to the actions and strategic relationships have been established with other key partners that are expanding, replicating o strengthening part of the actions undertook in the Project to guarantee the sustainability of key elements.

Synthesis of lessons learned

(+-) Project Results Frameworks should be designed more realistically within the scope of the Project.
(+-) Even when Projects do not integrated transversally the gender approach in their design (although it would have been ideal that it was consider from this stage), it can be incorporated in the implementation phase and still achieve significant results. It is critical to have specific diagnoses at the start of the interventions, a Road Map, a Results Framework and assigned resources that guarantee activities than involve women from a gender perspective in non-traditional sectors.
(++) The creation of tools and documented practical guides based on audiovisual resources, along with a technical support process, is key for the development and strengthening of capacities at the local and institutional level.
(++) The Project co-invested and co-managed the investments with the ASADAS and moved away from a donation approach (it should be noted that the equipment and material was donated, but the strategy used was not a welfare approach where the donations were seen as "gifts", instead, a technical assistance approach to strengthen the capacities of the ASADAS in a joint effort which promotes the sustainability of the actions was undertaken) that significantly contributes to the strengthening of the ASADAS, the promotion of local leadership and the sustainability of their achievements.
(++) Financial incentives such as the (fair) charge for water consumption, do have clear and immediate effects with respect to the rational use of water, which, along with training and awareness campaigns, derived in a better management of the hydric resource at all levels.
(++) Community-based water management is key not only to provide water for human and productive consumption, but also as a way to fight the impact of climate change and reduce vulnerability at the local level. The project demonstrated the need to support and invest in this sector by the public and private sector and civil society in general.
(++) The strategic support for, and articulation with, successful initiatives such as the Communal Water League, as well as the follow-up that other strategic partners provide, represent a successful model that can be replicated for all the ASADAS. The strategy/pilot to strengthen second-tier platforms as service providers and strategic accompaniment to the ASADAS has proven to be a successful model.

Recommendations summary table

Table 2. Recommendations Table

Rec #	TE Recommendation	Entity Responsible
A	To strengthen Project´s results	
A.1	Support the strengthening and sustainability (as a sustainable business model) of Federations, Leagues, and Unions (FLU) of ASADAS, as well as and their integration.	AyA
A.2	Access to financing for ASADAS through the Water Resource Protection Rate (TPRH) or Financial entities.	AyA-ARESEP-Banco Popular
A.3	Information and dissemination campaign to guarantee availability and access to the tools created by the Project.	AyA
A.4	Guarantee that investments made by ASADAS have a gender focus and an integrated adaptation approach (ecosystem-based adaptation, community-based adaptation and local risk management).	AyA-ORAC-ASADAS
B	At institutional level	
B.1	Review of the legal framework governing ASADAS.	AyA
B.2	Change in the ASADAS´ legal framework to encourage the participation of women and young people in their decision-making structures.	AyA

B.3	Institutionalization of practices for adaptation to Climate Change.	AyA-CNE-MINAE
B.4	Planning based on hydrogeological information and improvement in the availability and access to hydrometeorological data at the local level.	AyA-IMN
B.5	Active involvement of the private sector in the management of water resources.	AyA- MINAE
B.6	Promote government cost sharing.	PNUD
B.7	Allocate resources for strengthening the ORACs.	AyA
C	For PNUD-GEF	
C.1	Improve in the design of proposals, especially in the relationship between outcomes-outputs-indicators.	GEF
C.2	Continue the actions started by the project through other financing mechanisms. Along the same lines, there are opportunities to strengthen the network of partners at the local and national level that would allow the continuity of this type of projects, promoting their replicability and escalation.	PNUD

Description of the Project

The project was designed to improve the management capacity, resilience and adaptation to climate change of the Administrative Associations of Communal Aqueduct and Sewer Systems (ASADAS) in the Northern region of the country. The effects of climate change are evident in the region, where in 2014 a drought emergency was declared, and it is estimated that by 2050 the annual area rainfall will be reduced by up to 35%; reaching an estimated reduction of 65% by the year 2080. The role played by ASADAS is key since they provide almost 30% of the country's drinking water supply (suburban and rural areas). Without ASADAS, Costa Rica would not be one of the countries in the region with the greatest intra-household access to this service (around 93%).

The reality of many ASADAS in the country today, and for most of the ASADAS that the project targeted before the project started, is that their infrastructure is very old and its maintenance is far from optimal, this in turn affects the quantity and quality of the water that users consume. Furthermore, the associations usually lack organizational capacities and have a strong dependence on the collection of fees (often unstable) and tend to present limitations to manage the optimal use of the hydric resource as they do not carry out monitoring and actions to reduce the amount of water that is unaccounted for, as they do not have systems that indicate situations like leaks and people with illegal connections, among others. Moreover, ASADAS usually have investment plans focused on the short term and do not consider adaptation measures based on ecosystems, infrastructure, communities or risk management. All of the above has as a consequence that the status of many of these ASADAS is weak, leaving the communities they operate in in even more vulnerable conditions, with a stronger pressure on the country for ensuring the right to water for its citizens.

Although state institutions have tried to change this reality through different policies to strengthen ASADAS, some barriers limit the achievement of the normative solution such as: a) lack of knowledge and access to financing for resilient infrastructure, lack of water-efficient technologies at the household-level, lack of water use and aquifer mapping information to effectively manage water demand and use and design strategies to conserve water during periods of drought; b) limited capacity and knowledge among local stakeholders to adopt sustainable water use practices and reduce their vulnerability to climate change (CC); c) incomplete hydroclimatological network and poor climate information early warning system (CEWS) that limit the capacity of rural ASADAS and local communities to implement timely mitigation measures; d) lack of awareness among policy-makers and decision-makers about the social, economic and environmental implications of the vulnerability of water resources to CC; and e) lack of economic incentives for the farming and agricultural sectors to adopt water-conserving production practices to reduce their vulnerability to CC.

Considering all the above, and in order to support the strengthening of the capacities of the ASADAS to face the risks of Climate Change in communities with water stress the project established the objective of: improving water supply and to promote sustainable practices related to the responsible use of water by users and the productive sectors through adaptation actions based on infrastructure, community, ecosystems and risk management in the ASADAS. In order to address the hydrological vulnerability related to the climate in the North of Costa Rica. According to the theory of change

established in the ProDoc, this would be achieved through community and ecosystem-based measures in rural aqueduct associations to address projected climate-related hydrological vulnerability. The interventions are aimed at the northern region of Costa Rica (Guanacaste and Alajuela provinces). The approach to achieve this objective was:

- To strengthen the infrastructure and technical capacity of the ASADAS to fight the impact of climate change on the aquifers in the targeted zone.
- To support ecosystem-based adaptation measures to climate change integrated into public and private sector policies, strategies and investments related to infrastructure and water supply services to the rural community.

Objective of the Terminal Evaluation and Methodology

The Terminal Evaluation (TE) aims to understand the scope of the results with respect to the original plan, as well as to extract lessons and recommendations on the relevance, efficiency, effectiveness, sustainability and (possible future) impact of the Project. The analysis is expected to contribute to similar initiatives and to the work carried out by UNDP and its partners on the subject. The evaluation was based on the evidences found both in the project documents, as well as in the field, and in the perspectives of people related to the project (from its design and implementation, as well as beneficiaries and strategic partners). The TE is expected to contribute to a process of accountability and transparency, and to reflect the achievements of the project.

ACRONYMS AND ABBREVIATIONS

ADI	Integral Development Association
AOP	Annual Operating Plan
ASADA	Administrative Associations of Communal Aqueduct and Sewer Systems
AYA	Institute of Aqueducts and Sewers
BioFin	Biodiversity Finance Project
CAP	Capacities, attitudes and practices
CBH	Water Balance Calculator
CEDARENA	Center for Environmental Law and Natural Resources
CNE	National Emergency Commission
DCC	Climate Change Office
ENSO	El Niño-Southern Oscillation
FLU	Federations, Leagues, and Unions
GEF	Global Environment Facility
GIZ	German Federal Enterprise for International Cooperation
ha	Hectares
HR	Human Rights
IDESPO	Institute of Social Studies of the Population
IMN	National Meteorological Institute
INA	National Learning Institute
INDER	Institute of Rural Development
INAMU	National Women's Institute
ITCR	Technological Institute of Costa Rica
LCA	Communal Water League
LF	Logical Framework
M&E	Monitoring and Evaluation
MINAE	Ministry of Environment and Energy
MINSA	Ministry of Health
MOCUPP	Monitoring of land use change within productive landscapes linked to land tenure
MTR	Mid-term Review
NDC	Determined National Contribution
NGO	Non-Governmental Organization
OCSAS	Community Organizations of Water and Sanitation Services
ORAC	Local Office of AyA
PC	Project Coordinator
PIR	Project Implementación Report
PRODOC	Project Document
PRONAE	National Employment Programme
RF	Results Framework
RTA	Regional Technical Advisor
SDG	Sustainable Development Goals
SESP	Social and Environmental Screening Procedure
SGP	Small Grants Programme
SINAC	National System of Conservation Areas
TE	Terminal Evaluation
TNC	The Nature Conservancy
TNN	Northern Terrritory Zone (Huetar Norte Zone)
ToR	Terms of reference
TPRH	Water Resource Protection Fee
UCR	University of Costa Rica
UEN	Estrategic Business Unit
UNA	National University of Costa Rica
UNEP	United Nations Environment Programme
UNDP	United Nations Development Programme
USD	United States Dollar

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INTRODUCTION

Evaluation Purpose

The objective of the TE is to evaluate the achievement of the outcomes of the Project versus what was originally proposed, and to draw lessons that can improve the sustainability of the benefits of this Project and support in refining the general programming of UNDP.

Scope of the Evaluation

This evaluation process bases on the evidence developed by the Project, and on the feedback of different actors and sources of information related to its design, monitoring and implementation. The TE complemented the analysis with filed visits to observe the interventions, as well as an extensive review of the project documents and related information, and focused on the collection of basic and pertinent information to assess the execution of the project with respect to what its Logical and Project Results Framework established.

The overall approach and methodology was participatory and consultative, and the evaluation follows the guidelines established in the UNDP Guide for Conducting Final Evaluations of UNDP-supported projects funded by the Global Environment Facility (GEF). [1]

The evaluation was carried out by a consultant who performed as National Expert, as well as a consultant who provided strategic support throughout the TE process. In general, the evaluation process is summarized as follows:

- ✓ The TE began with a Kick-off meeting (March 1) and an evaluation mission (fieldwork) that was extended until April 9th.
- ✓ Interviews with stakeholders were established (see annex 1) based on guided interviews (see annex 2). Then the information analysis started.
- ✓ The evaluation team traveled to the targeted area and performed a field evaluation (see annex 3).
- ✓ On April 13th the debriefing for presenting initial findings was carried out.
- ✓ Along the mission, key documents of the Project were consulted, such as: PIRs, PRODOC, financial information, Mid-Term Review (MTR), reports, etc.

Methodology

The analysis comprises the 5-year execution of the Project (from its inception in May 2016, to the operational closure date in June 2021). The process of revising documents process was exhaustive, and the evaluators established meetings with stakeholders (depending on their availability) and that represented the parties involved in the Project. The information was triangulated in different ways (in field observation, and based on a factual check with primary and secondary sources of information). Qualitative and quantitative data was available, and in the case of the interviews they were semi-structured (carried out virtually given the situation of the COVID 19 pandemic), same as field observation guides. The Project Results Framework, as well as the evaluation matrix (see annex 4) were used as evaluation tools for the data collected.

According to the ToR of the final evaluation, the evaluation team reviewed all the information available related to the project, from the information produced during the preparation stage: ProDoc, PIRs, budget information, related and crosscutting policies of the project, among others, detailed in annex 5:

Additionally, the team carried out a brief online survey (sent through WhatsApp given the limitations regarding internet access by ASADAS (see annexes 6 and 7)), interviews and focus groups (during the field visit) with stakeholders within the project, implemented out ensuring compliance with the UNDP and GEF guidelines in terms of participation, gender equity and human rights, among others.

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

The TE process was based on some basic principles:

Participative Approach: The evaluation identified and contacted the different stakeholders relevant to the project, taking into account their real participation and involvement. The identification of the parties was carried out jointly and with the support of the executing team. This with the aim of gathering as many points of view as parties involved in the project.

Gender and Human Rights approach: From the conception of the evaluation, the importance of carrying it out with significant respect for gender equality was taken into consideration, along the same lines with the achievements of the Project.

Theory of change approach: The evaluation understands the sequence in which the different activities of the project would generate the changes expected.

Knowledge management approach: the evaluation pursued the identification of experiences that promotes lessons for GEF in similar projects.

Evaluation criteria and scales applied: According to the guidelines for Terminal Evaluations of the GEF, it follows these criteria:

1. **Relevance:** How is the project related to GEF's main areas? And development and environmental priorities at local, regional and national levels?
2. **Effectiveness:** To which extent were the objectives accomplished?
3. **Efficiency:** Has the Project been implemented efficiently, in line with international and national norms and standards?
4. **Sustainability:** To which extent possible financial, socio economic and/or environmental risks for the achievement of the Project's long term results exist?
5. **Impact**: Is there evidence that the project has contributed to reducing people's vulnerability and improving livelihoods, physical assets and natural systems against the adverse effects of climate change?

Activities developed:

Evidence based identification and review of the information sources:

The evaluation carried out a desk study phase reviewing all the available documentation related to the project in order to get acquainted with it, its objectives, parties involved and expected outcomes. Furthermore, initial interviews took place with the Project Coordinator in order to obtain additional and contextualized information about the project, and to be able to identify stakeholders to interview during the process, as well as coordinate fieldwork.

As indicated at the beginning of this section, the evaluation followed a participatory approach that concluded in the interview of more than 50 people in total (see annex 1 for the list of institutions and references, and annex 2 for the interview forms that were used with different parties).

Tool development: surveys and interview guidelines:

The survey used for individual interviews and focal groups was included in the Inception Report. As previously stated, the questions included in the survey and interview guides were designs according to the evaluation criteria by GEF.

Inception Report:

The Inception Report included an initial list of documents, as well as the people to be interviewed as part of the process. So as the detailed strategy and methodology that guided the evaluation. The UNDP team related to the project reviewed this Report, and approved the methodology proposed along with the approach presented.

Field Mission:

The field mission schedule used during the visit can be found in Annex 3. The fieldwork began in the Huetar Norte Region with an interview with ORAC´s collaborators in this region, in order to understand the reality of the area and their work with the coordinating entity (AyA) represented in this case by the regional office. That same day, visits and focus groups were held with ASADAS in the area; during the second day, meetings with other partners occurred as well.

On the third day of the field mission the team moved to the SEMU 2, and on the next a meeting with the ORAC manager of the Chorotega area, this in order to also understand the reality of this region. During the fifth day, the team visited another ASADA (transfer to SEMU 3) and finally closed the day with a meeting with representatives of several ASADAS associated at the Communal Water League (LCA), some of them visited on the last day of the field mission.

Interviews and focus groups with stakeholders and interests groups:

More than 20 interviews with stakeholders were held and, either during individual interviews or focus groups, representatives of more than 20 ASADAS (beneficiaries of the Project) were interviewed as well. Furthermore, the evaluators also interviewed the Project team, as well as other relevant UNDP departments, such as the Project Management, Monitoring and Evaluation (M&E) officer, the Chief Program Officer, RTA, among others.

First findings presentation at field mission completion:

On April 13th, after the fieldwork was completed and with most of the interviews with stakeholders carried out, the evaluators presented the initial results (key findings and conclusions) during a debriefing with the UNDP team.

Once the fieldwork stage concluded, the systematization of the information and analysis process continued, in order to prepare the draft TE Report (Product 2). This version of the report was reviewed and the comments were taken into account to deliver this Final report (Product 3).

Data Collection and Analysis:

The information related to data collection and analysis used in the project was detailed in the previous section. In Annex 16 the reader will find the information of the different data collection mechanisms used by the evaluation team in the process.

Ethics

The evaluation was conducted in accordance with the UNEG (United Nations Evaluation Group) Ethical Guidelines for Evaluators, and the evaluator has signed the UNEG Code of Conduct for Evaluators (Annex 8). Specifically, the evaluator ensures the anonymity and confidentiality of the people who were interviewed and surveyed. With respect to the UN Declaration of Human Rights, results are presented in a way that clearly respects the dignity and self-esteem of the stakeholders.

Limitations

The evaluation did not faced major limitations. Originally, the TE should have been executed by an evaluation team made up of an International Leader and a National Expert. For reasons not controlled by UNDP, it was not possible to hire a lead person and the evaluation was assumed by the National Expert. However, this situation did not represent significant limitations or delays to the evaluation process. It is worth mentioning that the evaluation had the participation of a consultant (hired directly by the evaluator) to provide support with the collection of the information, the fieldwork and the analysis of the information. This contribution was crucial for the development of the process and the achievement of the established times and tasks.

On the other hand, and even though it did not represent a limitation, the context caused by the COVID 19 pandemic meant that the interviews with stakeholders and counterparts had to be carried out virtually. The work during the field mission,

followed the corresponding sanitary measures and the health guidelines established by the national authorities[2]. The pandemic situation did not prevent the team from visiting the intervention areas, however, the region is extensive and the dispersion of the ASADAS in some cases limited the possibility of the evaluation to visit and interview more ASADAS. It is important to note that the evaluation was not able to interview ASADAS in coastal areas. However, the representativeness of the organizations and initiatives observed is considered sufficient and the necessary information was collected.

It is worth mentioning that, in general, the execution times of evaluations of this type (in the case of the GEF) are in some cases limited in relation to the complexity of the projects and their scope. But it was assumed as a challenge that was faced with commitment to meet the requirements. There were no limitations in the participation of the people engaged, both at the grassroots level (ASADAS) nor public institutions, and the receptivity and support of the Project team, the RTA and UNDP in general facilitated the execution of the evaluation.

PROJECT DESCRIPTION

Project Start and duration

Relevant dates of the Project:

PIF Approval Date:	October 15, 2014
Authorization date CEO:	January 14, 2016
Start date of the project:	February 1, 2016
Project director hiring date:	May 2016
Date inception workshop:	August 8, 2016
End date of TE:	April 30, 2021
Original completion date:	March 31, 2021
Expected completion date:	June 30, 2021

The Project was approved at the end of 2014, within the framework of a technical support provided by UNDP on the issue of integrated management of water resources and strengthening of ASADAS within a logic of adaptation to climate change. The project was conceived and designed with stakeholders such as AyA (as an inspector and operator of its own systems at the country level). It was authorized in January, and started almost at the same time. The Coordinator was hired in May 2016 and the initial workshops took place three months later (August 2016).

The project was approved within the GEF's Special Climate Fund, conforming a particular case since Costa Rica was not a priority candidate for this Fund. Costa Rica has a fairly generalized access to drinking water (92.4%)[3]. However, the technical foundations that were raised at the beginning of the project explained accurately the need to approach the issue from an adaptation to climate change based on ecosystems approach, the urgent need to increase resilience to CC and the relevance of community-based water management in the country.

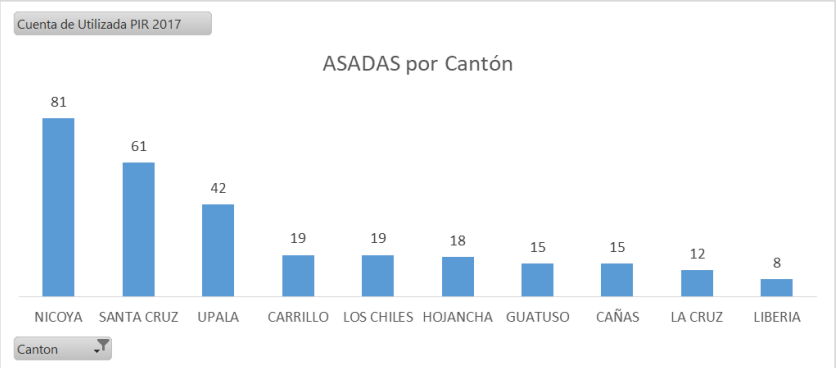
It is a Direct Implementation Modality (DIM) Project by UNDP in close coordination with AyA, and has coordinated important strategic alliances with other cooperation agencies and public institutions. The established time frame was 5 years. Due to the effects of the COVID 19 Pandemic, the project had an extension of 3 months (its completion date was contemplated for March 31 and it was extended to June 30, 2021). A Mid-Term Evaluation (MTR) was carried out in 2018. Although at that time there was no complete and up-to-date Tracking Tool instrument for the Project, this evaluation revealed the correct implementation of the activities. The Project is in a closing phase and in the process of an exit strategy, that will formally take place in June 2021.

Although in the ProDoc the intervention of the Project was established in 3 SEMUs, in the implementation, it was adjusted to coincide with the two administrative regions where the AYA works and groups the ASADAS. The project intervention area

2 During the field mission, a protocol that implied (among others) constant hand washing, the use of masks throughout the trip, distance and use of open spaces in the development of interviews and the general monitoring of health conditions of the team, was followed.
3 According to Estado de la Nación: Estadísticas - Programa Estado Nación : Programa Estado Nación (estadonacion.or.cr)

was therefore developed in 2 SEMUs in the North of Costa Rica, part of the provinces of Alajuela and Guanacaste, in the localities of Upala, Guatuso, Los Chiles, Liberia, Carrillo, Santa Cruz, Nicoya, Hojancha and Cañas. The Project began working with 291 ASADAS, located in 11 Cantons and 45 Districts in 2016. The distribution by Canton is reflected in the following graph:

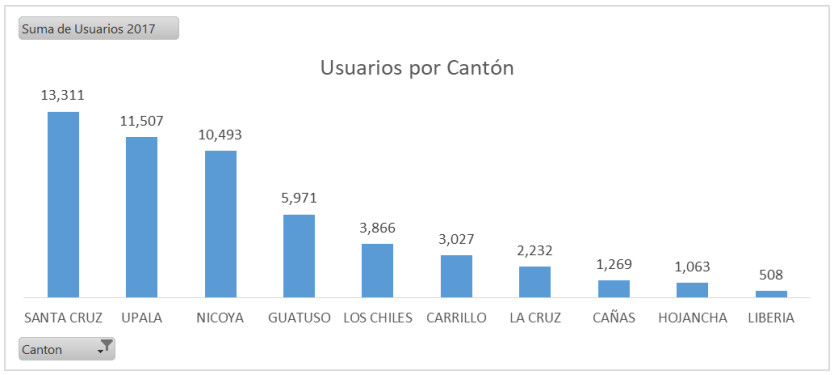
Graph 1. ASADAS by Canton 2017



Source: Own elaboration based on project information

Regarding users, the distribution by canton is as follows:

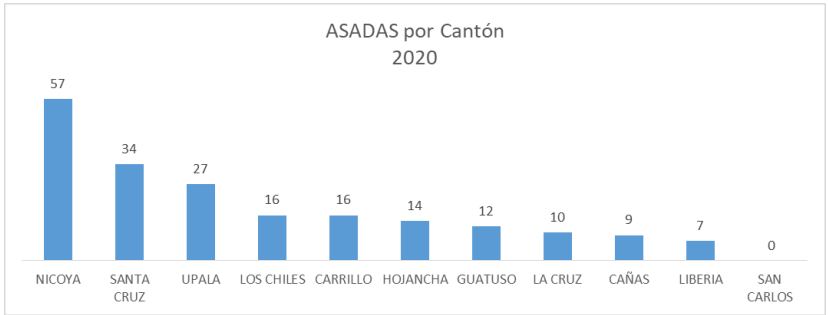
Grap 2. Users by canton 2017



Source: Own elaboration based on project information

Nonetheless, due to different reasons (where the integration/merger of ASADAS stands out), at the end of 2020 the following distribution of ASADAS by canton was reported:

Graph 3. ASADAS by canton 2020

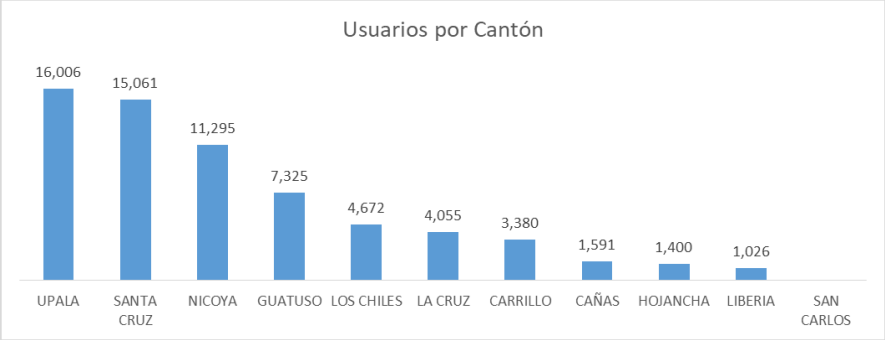


Source: Own elaboration based on project information

Unfortunately, there is no accurate information on the number of ASADAS that underwent a process of integration or merger with others. Such information would be very useful as, according to the perspectives of key informants, this is a strategy that AyA promotes to achieve the efficiency and sustainability of the ASADAS. However, according with the

information provided by the team, the project supported the merge or integration process of 35 ASADAS. In general, and probably because of demographic growth and flows of people within the country, the number of users at the end of the project varied and is reflected in the graph below.

Graph 4. Users by Cantón 2020



Source: Own elaboration based on project information

Development Context: Socioeconomic, environmental, political institutional, and relevant issues that have affected the project.

Costa Rica, with an area of 51,100 square kilometers (km2), has abundant natural resources, including water. The available water per capita is estimated at 28,634 cubic meters (m3) per year, which is comparable with the available water per capita in Brazil. Costa Rica is rich in tropical forests, savannas, and aquatic ecosystems. Costa Rica's forests, especially its tropical forests that are associated with aquatic ecosystems, are essential sources of goods and services and are vital to preserving the quality and quantity of the available water. Costa Rica currently has 18,400 km² of protected areas, which comprise a form of adaptation to climate change since they protect the country's forest and aquatic ecosystems and are a key source of water resources around the country.

The country, as well as others in the region, faces the challenges of climate change. Although there are specific studies for the availability of water in the country, there are no generalized data at the national level on the projection of all water sources in the future, based on predictions of hydric stress considering extreme changes in the climate. On the other hand, the country has a complex institutional and regulatory system to manage this (and other) natural resources.

The role of ASADAS in the management and provision of drinking water is critical. These are locally organized groups of men and women from communities delegated by the National Institute of Aqueducts and Sewers (AyA), which provide drinking water and sanitation services to 28.7% of the country's population, mainly in suburban and rural areas. It is estimated that there are about 1401 ASADAS in the country (according to AyA data as of March 2021). Within the project intervention area, 7 cantons of the Chorotega Region and 3 cantons of Huetar Norte are covered. The corresponding figures for the number of ASADAS are: 59 in the North zone and 323 in the Chorotega region[4]. For the PIR 2021, the total number of ASADAS considered was 198, due to the fact that ASADAS without a delegation agreement were not added to the metrics.

At the national level, the management of water as a natural resource is under the Ministry of Environment and Energy (MINAE), water concessions are granted by the MINAE Water Directorate, the regulation of rates is governed by the Regulatory Authority of Services Public (ARESEP), the leadership and control for water quality issues for human consumption is exercised by the Ministry of Health (MINSA), as well as the AyA through the Water Laboratory; finally, the Aqueduct and Sewer Institute (AyA) provides water nationwide, manages aqueducts, and supervises other providers (such as ASADAS, municipal aqueducts, and public service companies). The AyA also regulates the framework that regulates the provision of this resource, provides technical assistance, materials, work tools, supervises processes, and establishes requirements, among others. This institutional framework reveals the complexity of the governance of water and the drinking water service in Costa Rica, and represents an enormous challenge for the management of the resource at the local level and the execution of projects of this nature.

[4] Information available at https://www.da.go.cr/asadas/

It is within this context that ASADAS operate. Although their constitution and formal operation is regulated under the Associations Law (Law 218, article 2), it is AyA who regulates and supervises them. Most of the ASADAS (including those in the project intervention areas) do not have the necessary skills (technical, financial, infrastructural, etc.) to be able to fully develop their operations, and they have limited knowledge and tools, as well as few investment possibilities to face the stress situation (mainly future) that climate change implies.

Much of the existing aqueduct infrastructure is outdated and overloaded, causing an inefficient water supply that, in turn, complicates the collection of fees from users, creating barriers for the integrated management of water. The instability of the collection of fees causes financial uncertainty, and affects the ability of ASADAS and AyA to plan and implement specific improvements and new investments, including studies and technical assessments for an appropriate adaptation to changes in the climate. At a general level, the investment plans of AyA and other service providers are short-term and lack adaptation measures based on the community, risk management or ecosystems. If the ASADAS do not strengthen their capacities to deal with CC, the vulnerability of rural populations in the country and especially in the northern region of Costa Rica will only increase.

According to ECOTEC[5] (2009), the water supply in the country is determined by weather variations and human alterations to the water cycle, which occasionally serve as causes for droughts and floods. Costa Rica has experienced the effects of climate change, principally in the Northern Region of the country; because of its location in an inter-tropical zone, evaporation and evapotranspiration are increasing the temperatures of the region. Based on climate change scenarios there is an expectation that by 2080 the annual area rainfall will be reduced by up to 65% in the northern Pacific region. In the short term, rainfall is predicted to decrease 15% by 2020 and 35% by 2050. These extreme conditions will exacerbate climate and water stress in some areas, such as the canton of La Cruz, where precipitation is expected to be less than 500 millimeters (mm) per year by 2080, recreating conditions that are typical of semi-arid areas. The region has already experienced multiple droughts; for example, between 1950 and 1999 the Province of Guanacaste reported 33 droughts. The aquifers in the region are also under stress because of over-consumption by the agribusiness sectors (pineapple, sugarcane, melon, watermelon, tuber roots and others that require water for cultivation and for export packing plants), farming, tourism and urban growth, among others, which affects the availability and quality of water for human consumption.

It is under this multi-problematic and challenging scenario that the Project set its operating framework (executed successfully). On the one hand, there is also the reality of the situation of stress due to the consequences of climate change in the Northern Region of the country, a complex institutional framework, and grassroots organizations and infrastructure weakened and with great need to increase their resilience at all levels.

At a sociocultural level, the role of ASADAS is critical to guarantee the country's water supply, and their operation has implications for human health and quality of life for populations (especially rural and vulnerable ones). This service is intrinsically linked to productive activities and income generation at the family, community and social level. At the environmental level, the comprehensive protection of watersheds, water sources and ecosystems requires an approach based on adaptation to climate change.

At the financial level, the challenge is major and has different faces: on the one hand, the need to develop strategic and technical studies to invest in a resilient infrastructure that guarantees the long-term resource based on climate variations, as well as investment in green infrastructure, and on the other hand, the need to strengthen ASADAS as organizations to be able to charge a fair rate that allows them not only to provide the water resource distribution service, but also to carry out maintenance and invest in activities to ensure access to water in the future.

These problems intersect with integrated risk management, which has been very present throughout the project. On the one hand, at the start of its operations Hurricane Otto (2016) implied undertake actions that have been maintained throughout the project, but there have also been other disasters such as the Eta and Iota hurricanes (2020) that reflect part of the problem clearly.

5 ECOTEC. 2009. Diagnóstico Biofísico para Costa Rica del Proyecto: Mejoramiento de Capacidades Nacionales para la Evaluación de la Vulnerabilidad y Adaptación del Sistema Hídrico al Cambio Climático en Costa Rica como Mecanismo para Disminuir el Riesgo al Cambio Climático y Aumentar el Índice de Desarrollo Humano. San José, Costa Rica.

The long-term solution proposed by the Project to mitigate the predominant threats of water scarcity was to start from a holistic approach to manage the supply and demand of water based on technical analyzes that can contemplate availability and quality of water in the long term and takes into consideration climate change. The Project worked under a multi-threat scenario approach (not only climatic) that was based on prevention, monitoring and response to incidents with agrochemicals, that links contamination and CC.

Immediate and development objectives

The goal of this five-year project is to improve water supply and promote sustainable water practices of end users and productive sectors by advancing community- and ecosystem-based measures in ASADAS to address projected climate-related hydrological vulnerability in the North of Costa Rica. This was planned to be achieved through community- and ecosystem-based measures in Rural Aqueduct Associations (ASADAS) to address projected hydrological vulnerability due to climatic variations. The interventions are aimed at the northern region of Costa Rica (Guanacaste and Alajuela provinces). More specifically, the following outcomes were established:

- Infrastructure and technical capacity of ASADAs strengthened to cope with climate change impacts to aquifers in the target area.
- The capacity of ASADAS' end users to mainstream climate change adaptation into their livelihoods systems is strengthened.
- Hydrometeorological information integrated into land use and production practices, and planning processes to increase resilience of rural communities to address water variability.
- Ecosystem-based climate change adaptation measures are integrated into public and private sector policies, strategies, and investments related to rural community water-sourcing infrastructure and services.
- The purchasing and credit policies of at least 20 agricultural and livestock trading companies and five (5) financial institutions operating in the target region promote adoption of productive practices that help maintain ecosystem resilience to climate change.

Description of the project's Theory of Change

The Theory of Change (ToC) underpinning this Project includes building community infrastructure and technical capacities to address projected changes in water availability (Component 1) and incorporating ecosystem-based adaptation measures into policies and investments of the public and private sector in the target area (Component 2).

Within the first component related to building infrastructure and technical capacities based on the community to address the projected changes in water availability, three expected outcomes were established:

- Infrastructure and technical capacity of ASADAs strengthened to cope with climate change impacts to aquifers in the target area.
- The capacity of ASADAS' end users to mainstream climate change adaptation into their livelihoods systems is strengthened.
- Hydrometeorological information integrated into land use and production practices, and planning processes to increase resilience of rural communities to address water variability.

Component 2: Mainstreaming ecosystem-based adaptation into public and private sector policies and investments in the target area

- Ecosystem-based climate change adaptation measures are integrated into public and private sector policies, strategies, and investments related to rural community water-sourcing infrastructure and services.
- The purchasing and credit policies of at least 20 agricultural and livestock trading companies and five (5) financial institutions operating in the target region promote adoption of productive practices that help maintain ecosystem resilience to climate change.

Along this ToC, technical, financial-economic, institutional and behavioral barriers that could affect the scope of the expected results (see Annex 9) as well as the mitigation mechanisms to overcome these limitations were identified.

Expected Results

Within the 2 components and the 5 expected outcomes, a total of 16 specific outputs were established:

1. Infrastructure and technical capacity of ASADAs strengthened to cope with climate change impacts to aquifers in the target area:

1. Strengthened metering systems to track water supply to end users (micro- and macro-meters) in the ASADAS network provide updated information on climate-related risks and vulnerability of project area water resources.
2. Water catchment (well, spring, and/or rain), storage, and distribution systems in rural areas improved and resilient to climate change.
3. Water-saving devices installed in homes.
4. Pilot sanitation and purification measures (e.g., sludge management and dry-composting toilets) and other adaptive technologies for wastewater management to improve water quality.
5. Water sources and associated aquifer recharge areas protected and/or rehabilitated through reforestation, natural regeneration, and other protection and conservation measures.

2. The capacity of ASADAS' end users to mainstream climate change adaptation into their livelihoods systems is strengthened.

6. Community-based climate change training program with a gender focus and includes minority groups, such as indigenous communities.

3. Hydrometeorological information integrated into land use and production practices, and planning processes to increase resilience of rural communities to address water variability.

7. Fifteen (15) new Automated Weather Stations (AWS) and Automated Flow Stations (AFS) installed to provide consistent and reliable environmental data in real time in the selected northern SEMUs.
8. Vulnerability Index, Adaptive Capacity Index developed and supporting the climate early warning and information system, and the Risk Management Plan for Potable Water and Sanitation (RMPPWS).
9. Information monitoring system for the AyA and ASADAS Management System (SAGA) to track the impact of the adaptation measures aiming to reduce the vulnerability of rural communities to address water variability due to climate change, and articulated to national-level information systems (National System of Water Resources and Hydrometeorological National System).
10. Climate Early Warning and Information System (CEWS) on climate-related risks and vulnerability of project area water resources generated and disseminated to ASADAS, users, and partners.

4. Ecosystem-based climate change adaptation measures are integrated into public and private sector policies, strategies, and investments related to rural community water-sourcing infrastructure and services.

11. Four (4) participatory RMPPWS implemented within each targeted canton (SEMU 1: Guatuso, Upala, Los Chiles, and La Cruz; SEMU 2: Liberia and Cañas; SEMU 3: Santa Cruz, Nicoya, Hojancha and Carrillo).
12. AyA and the National Emergency Commission (CNE) investments for the targeted area integrate climate change risks.
13. Ten (10) livestock and agricultural producing companies adopt a voluntary fee system (Certified Agricultural Products and Voluntary Watershed Payments) to pay for the protection of water resources.
14. Valuation modeling of ecosystem-based adaptation measures and economic valuation of ecosystem services support the integration of water-related risks and new ecosystems management practices within productive sectors (agriculture and livestock industries).

5. The purchasing and credit policies of at least 20 agricultural and livestock trading companies and five (5) financial institutions operating in the target region promote adoption of productive practices that help maintain ecosystem resilience to climate change..

15. Farmers incorporate ecosystem-based climate change adaptation measures into their production processes, making use of revised purchasing and credit policies of agricultural and livestock trading companies and financial institutions.
16. Knowledge management system allows disseminating data, information, and toolkits to foster and mainstream ecosystem-based adaptation practices in other water-intensive productive sectors across the country.

Main Stakeholders

From its inception, the project established a process of coordination and close work with public institutions, different cooperation agencies within and outside the United Nations System, some local governments and obviously the ASADAS as key actors within the Project, as well as academia, civil society and to a lesser extent the private sector. The ProDoc, defined a series of stakeholders to work with, and the role they would play in the execution of the Project:

Table 3. Main Stakeholders

Stakeholders	Project Implementation Role
Ministry of Environment and Energy (MINAE)	The MINAE will guide the development of the legal and institutional framework for mainstreaming climate change measures into conscious water management by ASADAS and the productive sector, as well as the provision of technical and political support for the Project implementation. Furthermore, the Direction of Water will provide technical expertise, in coordination with the AyA, in mainstreaming climate change impacts on water availability into public and private sector policy, strategies, and investments, as well as providing conditions to upscale successful pilot experiences throughout the country. The MINAE is also the focal point of the GEF.
Institute of Aqueducts and Sewers (AyA)	The AyA is the national public institution in charge of providing technical and financial assistance to improve water management. It will play a key role both at the subregional planning level as well as during field-level activities, particularly those directed towards the capacity-building of ASADAS and the productive sector. Another important task by the AyA will be to coordinate lessons learned and pilot experiences at the local level in order to upscale them at the national level, so that ASADAS in other areas can implement successful adaptive measures.
Ministry of Agriculture and Livestock (MAG)	The MAG is the lead institution of the agricultural sector. The MAG will guide the development of an institutional framework for the mainstreaming of climate change measures into the agriculture and livestock sectors, especially in the regulation of private sector practices.
Ministry of Health (MINSA)	MINSA monitors water quality in urban and rural areas through water security plans. MINSA will have a key role in analyzing lessons learned from the four pilot ecosystem-based water security plans and in up scaling such experiences into national regulations and policies, with the goal of replicating such models to other ASADAS throughout the country.
Rural Aqueduct Associations (ASADAS)	ASADAS will be responsible for the incorporation of climate change adaptive measures and sustainable use concepts and guidelines into local water management, reducing water vulnerability and improving livelihood conditions.
National Forestry Financing Fund (FONAFIFO)	FONAFIFO executes the country's Payment for Environmental Services Program and will be an important stakeholder in the development of relevant financial mechanisms in ecosystem-based adaptation.
Agricultural production sector	The agroindustry sector small, medium and large-scale producers will participate in the implementation of two pilot projects that incorporate the economic valuation of ecosystem-based adaptation measures. Industry members will also be the beneficiaries of innovative sustainable practices aimed at increasing their eco-competitiveness. In particular, the project was supposed to liaise with agricultural and livestock commodities producers associations, such as CANAPEP (pineapple), CORFOGA (livestock), and CONARROZ (rice). Consultations for the participation by the private sector were initiated during the project preparation phase.
National Meteorological Institute (IMN)	IMN is the national institution in charge of providing meteorological analysis and weather forecasts to the population of Costa Rica. Its expertise, especially in forecasting present and future climate change impacts and in generating an early warning network in case of weather extreme conditions, will be key in improving ASADAS' technical capacities and community-based monitoring and response systems.

National Women's Institute (INAMU)	INAMU is the lead institution that promotes gender equality as a cross-cutting issue in national and subregional planning, policies, and strategies. It was supposed to build capacities inside the AyA, ASADAS, and the agroindustry sector in mainstreaming gender issues in water management and climate adaptation measures.
National Service of Groundwater Irrigation and Drainage (SENARA)	SENARA investigates the aquifers in the country and strengthens capacities at the local government level, ASADAS, and communities. It also provides technical and political support on hydrological decisions, providing oversight on the vulnerability in wells, springs, and protection zones. Additionally, SENARA designs irrigation canals, drainage systems, and supports producers.
National System of Conservation Areas (SINAC)	SINAC is the administrator for the national parks, conservation areas, and other protected natural areas in Costa Rica; it is part of the MINAE. It will play a significant role in the mainstreaming of ecosystem-based adaptation into public and private policies, as many of the water sources on which both sectors depend originate within protected areas under SINAC's jurisdiction.
National Emergency Commission (CNE)	The CNE is the governing agency for risk prevention and emergency management and is responsible for coordination with AyA, the municipalities, and other public entities to monitor the implementation of activities defined in the drought emergency decree for the province of Guanacaste. CNE also plays a major role in climate change adaptation and climate risk management. CNE investments for the targeted area will be updated to integrate climate change risks.
Regulator Authority for Public Services (ARESEP)	ARESEP regulates prices for public services in Costa Rica (water and sanitation, electricity, fuels, and terrestrial, sea, and air transportation). The project follows ARESEP policies regarding water tariffs, including those that apply to the private sector.
Local governments	Local governments regulate the local territory, grant building permits, and support the wellbeing of the population.
Local commissions	Local commissions comprise public and private organizations, universities, and non-governmental organizations (NGO).
UNDP	UNDP will act as the Implementing Partner in a Direct Implementation Modality (DIM) requested by government.
FLU	The ProDoc did not identified, ASADAS Federations, Leagues and Unions as key stakeholders. In particular, the work carried out with the LCA has been very significant, given its strategic role in providing services to the ASADAS in the area, and because of the technical support they offer in topics such as adaptation, legal and lobbying matters. This model is being replicated and strengthened in other areas of the country and as a result of the Project's intervention.

Source: ProDoc, adapted to the execution of the Project.

In the actual implementation of the Project, some of these stakeholders played a much more leading and active role than others. Clearly, the ASADAS as main partners were the key stakeholders, not only where the actions took place, but also where some tools where tested. In some cases, they became models in order to replicate processes or tools with other ASADAS and leading other regions, through leading key initiatives that promoted a more rational and comprehensive use of water with a focus on availability for the future.

The development of the Project took place in technical and institutional coordination with AyA at two different levels. On the one hand, UNDP worked closely with the Department of Community Systems and the Executive Chair, and with other units such as the Gender UEN, Risk Management UEN, Environmental Management UEN, and Project Administration UEN. On the other hand, the Project established a close work relationship with the Regional Offices of Rural Aqueducts (ORAC) in Huetar Norte and Chorotega. The ORAC coordinated with the ASADAS and carried out the work in the regions. Specifically, they supported them with measures on adaptation based on ecosystems and communities in both of the territories, with a clear emphasis on the TNN. It is worth noticing that Project field consultants had their workstation in the ORACs, which facilitated the coordination and proximity of the Project at the regional level.

Regarding other public institutions, the Project established actions to address specific issues, such as the installation and use of data from hydrometeorological stations and the preparation of the climate risk maps with the National Meteorological Institute (IMN), or the development of a fee for protection of water resources with ARESEP, with the support of Fundecooperación. So as the coordination regarding risk management with the National Emergency Commission, in close collaboration with local governments. The work done in coordination with the Municipality of Upala, Guatuso and Los Chiles in the Huetar Norte Region stands out. The Project did not work as closely with other municipalities given the context in which local governments operates.

The depth of participation of other public institutions such as MINSA, SINAC, FONAFIFO or even MINAE and SENARA was much lower compared to the institutions mentioned in the previous paragraph. Specifically, the gender perspective was coordinated and implemented with AyA and the National Institute of Women (INAMU), and the Project promoted actions for the development of policies that had an impact on the issue at the institutional and local level. The ProDoc did not identified the Directorate of Climate Change (DCC-MINAE) as one of the main stakeholders, but the Project involved it as part of the Steering Committee and the achievements of the Project are reported within the national metrics of adaptation to Climate Change (or National Determined Contributions, NDC).

Another relevant stakeholder identified is the Banco Popular y de Desarrollo Comunal, which is emerging as a financial entity that can provide services to ASADAS so that they can develop strategic investments regarding adaptation to Climate Change (which the Project has worked closely to support the sector). The Rural Development Institute (INDER) is a public sector entity that can contribute financing (even with non-reimbursable funds) projects to the ASADAS sector (as it happens as today). INDER financed some projects of the ASADAS based on the technical studies developed by the Project. The National Employment Program of the Ministry of Labor (PRONAE) financed the payment of workforce from the communities in relation to activities required by the ASADAS. Also, the National Learning Institute (INA), which encourages the development of specific capacities that can strengthen the operational and administrative management of community water stakeholders, developed different initiatives such as the a course for women plumbers.

Some strategic partners of the Project not mentioned before are the NGOs or international cooperation agencies that carry out actions related to the management of water resources, support for the strengthening of ASADAS and adaptation to Climate Change. Avina Foundation, CRUSA, Fundecooperación, CEDARENA and GIZ stand out. On the other hand, the role of the academy was key in the development of some actions, where the Project worked with IDESPO-UNA, UCR, UNA (Liberia branch), UTN, TEC and the Professional Technical College of Upala and Guatuso. It should be noted that UNDP has a collaboration agreement with TEC that facilitated the development of the "AppEsticidas" app, which gives water managers access to information on pesticides and other agrochemicals used in the main agricultural activities in the zone. Also TEC helped in developing the "SiembrAPP" app, which seeks to expand the digital registry of planted trees while providing recommendations of native species to be planted according to the region.

The Project was linked and strengthen with other projects financed by the GEF, such as *Paisajes Productivos* and Biofin, among others, as well as the UNDP Small Grants Programme. Furthermore, concrete actions, especially in the North-North Territory (TNN), were coordinated with other agencies such as UNHCR.

The work performed with FLUs (Federations, Leagues and Unions of ASADAS) is remarkable, this organizations operate as second-tier platforms that bring together ASADAS for purposes ranging from advocacy, to providing different services to ASADAS. In this sense, the LCA is emerging as a strategic partner not only in the development of the Project but also in supporting the strengthening of the ASADAS as operators of the water resources, strengthening their resilience and the ecosystems where the water resource is captured and protected. In the Huetar Norte area, the incipient work that the Union of North-North Aqueducts has been carrying out also stands out; even though it does not compare with the level of services currently provided by the Communal Water League, is projected to be able to group and help also strengthen the ASADAS in its area.

One of the absent stakeholders in the implementation of the Project was the private sector (agriculture) and some local governments. However, the Project excelled the actors identified in the beginning and promoted actions of some of strategic partners that were already working in the field to support their impact. For example, in the committees of the Biological Corridor Ruta de los Maleku, as well as the environmental management committees of Upala and Los Chiles, where together with the agro-industrial sector, local and cantonal mobilizations and forums were coordinated. At these events, the Project offered stands and talks with information about water-friendly techniques and products for the productive sector (mainly pineapple). Also noteworthy is the joint work with GIZ with one of the main opinion formers and pineapple producer: Upala Agricola, which operates in more than 20,000 hectares in the Cantons of Upala, Guatuso and Los Chiles. With them, the Project developed training activities and the process of calculating the water footprint begun. The work with Fundecooperación was important to bring the productive and tourist sector closer to the problematic (to be explained later in the report).

Previous Evaluations

During the execution of the Project, a Mid-Term Evaluation was carried out under the GEF guidelines, in 2018 (October). The analysis was positive regarding the context, design and execution of the Project (up to that moment) and it complements the final study of this Final Evaluation. However, and as mentioned above, the tracking tools were not analyzed during this evaluation, since they were not being filled in, which was key to the MTR. Hence, an opportunity was lost in relation to the adaptive capacity of the Project at that time.

The purpose of the TE is not to repeat or validate the results of the MTR, but to complement the lessons, conclusions and recommendations made. The analyzed periods are also different, as well as the stages of the Project. It is worth mentioning that most of the recommendations made in the MTR were met and exceeded in the execution in the second period of the Project.

During its early stages, the project did not have a Regional Technical Advisor (RTA) (it had one intermittently during the first year and, until 2018, a permanent RTA was assigned).This situation limited some actions in the adjustment of the initial design regarding its implementation/start-up. However, since 2018 a RTA is incorporated to the Project and she carried out close monitoring of the project activities and strategies, and made 2field missions to supervise the actions implemented. Most of RTA's observations and recommendations raised as technical guidelines for the Project were incorporated and implemented.

FINDINGS

This section embodies the essence of the evaluation. The analysis presented here is based on the analysis of various sources of information. It involves an exhaustive analysis of the Project documents, its reports, and its monitoring tools, among others. Above all, it is based on a cross checking and triangulation of information with other primary sources of information: the executors, beneficiaries and strategic partners and stakeholders of the project at public institutions, NGOs, academia and civil society.

In general terms and according to GEF´s guidelines, the TE must contribute to the following:

- Promote accountability and transparency;
- Synthesize lessons learned to improve the selection, design and implementation of future GEF-funded initiatives supported by UNDP; enhance the sustainability of benefits derived from the project and help in the overall improvement of UNDP programming;
- Evaluate and document project results and the contribution of the results to the achievement of GEF strategic objectives regarding global environmental benefits;
- Assess the degree of alignment of the project with other priorities within UNDP country agenda, including poverty alleviation; strengthen resilience to the impacts of climate change, reduce disaster risk and vulnerability, as well as cross-cutting issues such as gender equality, women's empowerment and support human rights.

Project Design/Formulation

Analysis of Results Framework

The design of the Project is relevant (this also confirmed by the interviews carried out with key stakeholders, the results of the survey, the analysis of data and documents, and the perceptions of the people interviewed in the field directly). It is relevance both for ASADAS as water resources management organizations; but also for AyA, and for the integrated management of water in the country, as the Project gave tools for improvement of adaptation to Climate Change and increased resilience in general. It is aligned with the National Policy for Adaptation to Climate Change and the Policy for Organization and Strengthening of Community Management of Drinking Water and Sanitation Services. Likewise, it is linked to the National Climate Change Strategy and its Action Plan (ENCC, 2009) and the National Development Plans in force within the periods of their execution.

The project reports a significant number of indicators on climate change adaptation from the DCC and contributed to the goals established by this organization related to the CC, namely: 6 community-based associations that adopt measures based on CC and 36 ha with systems of ecosystem-based adaptation (this is the metric established by the National Development Plan and reported by the DCC). Costa Rica is also a signatory of the United Nations Framework Convention on Climate Change (UNFCCC, 1992), which was ratified and entered into force in 1994. In addition, the country has submitted three national communications to the UNFCCC in 2000, 2009 and 2014 respectively, describing government actions and policy frameworks to address adaptation to climate change. The project contributes significantly to the actions of adaptation and integrated management of water resources based on ecosystems, communities and risk management.

The design was developed within the framework of Human Rights (HR), where water was declared as a Fundamental Human Right (2020) in Costa Rica, and takes into consideration a gender perspective. It contributes to at least the following Sustainable Development Goals: SDG 1 (End of poverty), SDG 3 (Health and Well-being), and since the project significantly addressed the reduction of unaccounted water and measurement, it also contributes to SDG 12 (Responsible Consumption and Production).

The objective is consistent and the three expected results are clear and, in general, achievable within the Project execution framework. However, the SMART criteria (specific, measurable, achievable, relevant and timely) were not met for all indicators (for example, the outcomes related to the private sector were identified as not feasible from the first PIR and the outcome regarding installation of water saving devices inside the homes was unfeasible).

The Results Framework (RD) set 12 indicators. It is worth mentioning that there are some dissociation between some outputs and the indicators that are evaluated in the PIR. The design overestimated the scope of the project in relation with implementing activities at households' level and with the private sector. This limited the scope of at least 6 outputs: water saving devices installed at households; pilot sanitation and purification measures; modeling of valuation of ecosystem-based adaptation measures, number of adaptation-related voluntary fee systems (expanded PES) implemented; number of purchasing and credit policies of commercial, agricultural and livestock enterprises and financial institutions reviewed/adjusted; and, finally, incorporation of adaptation measures to CC by the agricultural sector in the area. There is no clear relationship between the outputs proposed in the Theory of Change (ToC) and the indicators in general.

Not all the indicators have a direct relationship with the expected outputs, or at least it is not clearly established in the design. Furthermore, despite the fact that the project categorizes as Gen-2, there were no specific indicators related to gender issues, but they are a sub-section in some of the main indicators, more focused on parity in participation. It should be noted the importance of linking indicators to outputs, in order to ensure that efforts will be made to fulfill them.

The Project found limitations in working with companies that were willing to adopt voluntary fee systems or to incorporate adaptation practices. The Project documents were accountable of the specific actions that taken to comply with these outputs, but the design underestimated the need for these initiatives to be accompanied by financial benefits for the companies or some other mechanism that would guarantee their participation. Additionally, as shown in the analysis of the Project's results, some of the proposed objectives did not take into consideration the reality at the country and regional level regarding the involvement of households and their capacity to make the investments needed for water saving mechanism (or even cultural aspects and national regulations, such as promoting the use of latrines). So as the need to create financial incentives that attract the productive sector to adopt these initiatives.

Assumptions and risks

In the ProDoc, 8 different risks where identified.

Table 4. Risks identified at ProDoc

Risks identified	Rating	Type
Staff changes among implementing partners taking into account the uncertainties of the current administration represent delays in project implementation.	L	Political
Coordination among stakeholders regarding climate change, including the private sector, could be limited.	M	Institutional
Decision and policy-makers do not appreciate the need to mainstream ecosystem-based adaptation considerations into public and private sector policies and investments.	M	Political

The guarantors of rights may not have the capacity to fulfill their obligations with the project	M	Institutional
Conflicts between at the local level (ASADAS, communities, and end users) could result in claims or disputes regarding management of water resources	M	Institutional
The project could affect land tenure and/or community property rights, and/or customary rights to land or resources	L	Institutional
Local stakeholders (ASADAS, farmers, and municipal authorities) do not agree to adopt adaptation strategies at the ecosystem/watershed level.	M	Institutional

Source: ProDoc

The risks identified and the mitigation measures were monitored during the execution of the Project. One of the risks that predicted and materialized relates to private sector participation in investments in ecosystem-based adaptation strategies. This risk was reported and the limitations raised during the annual PIR (Project Implementation Review) and the RTA (Regional Technical Advisor)[6] as well as the strategic partners and the Steering Committee were aware of the situation. On the contrary, risks identified regarding ownership or involvement of key stakeholders, or the involvement of said stakeholders (public sector and civil society (including ASADAS) in decision-making was not an issue.

The Project did not identify risks related to environmental conditions. However, at the very beginning of the project, the country and specifically the area of operation faced the consequences of Hurricane Otto, this situation derived in actions out with local governments, ASADAS, public institutions and cooperation agencies for risk management programs. Last year, two more hurricanes (Iota and Eta) hit the zone and the warning and risk management mechanisms that had been installed with the ASADAS and other actors in the area of implementation were tested, to some extent. Throughout the project, the risk analysis was not adjusted (at the level of Project documents), but appropriate actions were taken to influence the affected areas and increase the response capacity at the local level.

An externality that was not taken into consideration, is the situation regarding Covid 19 Pandemic, which for an important part of the economy (and even international cooperation) implied important adjustments and even a stoppage of actions; nonetheless, the Project did not stop. Although this risk could not have been identified, it could have been a limitation that did not affect the execution and completion of the project in a timely manner.

Lessons from other relevant projects

At the Project design stage, UNDP had already started a process of technical and financial support for AyA regarding management of water resources in the country, issues of climate change and production and sustainable development in general. On the subject of ASADAS specifically, the experiences and lessons of the projects of “Transparency and accountability in ASADAS” (2012-2013) and “Strengthening of the National Water Resource Information Management System (SINGIRH) through the consolidation of the ASADAS Management System (SAGA) gave key elements. So as initiatives against unaccounted-for water in the cantons of San Carlos and Sarapiquí (2016-2017), which contributed with important elements for the design and access to basic information for the Project formulation and for the start of its operations .

More generally, the GEF Project "Conservation, sustainable use of biological diversity and maintenance of ecosystem services of protected wetlands of international importance" (2012-2016 GEF) provided elements to understand the situation regarding management of bodies of water in the country. In relation to the development of tools and information to prevent the contamination of water sources, much of the information came from the project "National Platform for Responsible Pineapple Production and Trade in Costa Rica" which, although not financed by the GEF, generated experiences and methodologies for planning meetings and workshops that were later applied in the project and in the generation of processes and tools such as those for piloting the PMR system.

[6] At the time, the RTA proposed to work with at least one private partner: Cultivo, a private consulting firm that seeks to promote investment in natural capital, at scale. The idea was that the owners of lands where restoration was taking place could sell the emissions reduced (sequestered) due to the restoration on a carbon market, and thus have a financing mechanism for the restoration itself and EbA measures. However, it was not possible to close the alliance given the scale of the properties (very small) and the governance in CR related to carbon markets. Also, during the months that they sought to prepare a proposal for GCF, the project procured alliances with hotel companies, and at some point some firms in Guanacaste showed interest, but this initiatives did not thrive. Although late in the project, the RTA also proposed an alliance with Agua Tica (water fund, an initiative of The Nature Conservancy, FEMSA, and others), who are also exploring the implementation at scale of the tariff.

Other institutions such as Fundecooperación, CEDARENA, GIZ and CRUSA had experience managing projects on the topic; however, there were no initiatives at such large-scale with ASADAS in the country nor on issues related to adaptation to CC. The data and strategic information related to the situation of the ASADAS in the country, in regards with regulations and the environmental, financial and social problems that affects them, were obtained from the experience of the AyA, MINAE and the national regulations in general. UNDP's experience through programs such as Small Grants and its expertise in the environment, democratic dialogue and development field, as well as its relationship of technical support to the sector at the national level provided the necessary elements to design the Project.

Planned stakeholder participation

The involvement of AyA at the central level, and of the ORACs at the regional level, was key during the execution of the Project. The stakeholders consulted highlight the crucial contribution made by the UNDP throughout the Project related their work with the ASADAS sector in the northern region. The Project had support from the Executive Chair of AyA, and during the time of the Project, the ASADAS sector gained strength as a relevant topic within the institution. Furthermore, the Project contributed visualizing the need to address a long-term perspective linked to the analysis of the consequences of Climate Change in water management. As an important contribution the mainstreaming of the gender approach was also positioned within the Institution and was incorporated into the water resource management issue and the institutional culture (through the elaboration of the Institutional Gender Equality Policy and their respective strategic plans).

Other bodies within AyA itself, such as the National Water Laboratory, were involved in the Project and, as a result, it strengthened its horizontal communication with other AyA departments, as well as its operational capacity. The Delegated Systems (Communal Aqueducts) department was active and its participation was key in strategic planning of the activities, generation of information and the coordination with other instances inside and outside AyA. Participation with and within the ORACs was crucial, the office personnel were linked to the Project (engineering personnel, management, and social promotion) and the impact of the UNDP team was significant in the work they carry out at the regionally, as well as in the development and use of tools, training workshops and technical information prepared by the Project.

The FLU's involvement in the development of activities, training processes and the dissemination of key information carried out by the Project, stands out; as well as the involvement of other instances at the local level, such as the local governments and the Professional Technical High schools of Upala and Guatuso. The work with the National Emergency Commission (CNE) was critical, especially at the beginning of the Project, since the situation regarding Hurricane Otto led to articulate actions at the local level that continued throughout the project.

The articulation with other cooperation agencies such as GIZ, Fundecooperación, CRUSA and CEDARENA was more relevant than expected. Wisely, a pilot project was financed with AVINA related to strengthening the Communal Water League (pilot that is being extended to other areas and FLU in the country, as is the case of the UANN in the TNN and that is part of the of the Project), which led to financing of an additional project from the Embassy of the United States of America to replicate it with other FLUs in the area and at the national level. UNDP formed part of a cooperation board together with GIZ, Fundecooperación and CEDARENA to support the development of the water resources protection tariff (TPRH) in coordination with ARESEP.

Participation with public institutions such as SINAC or MINAE was not as planned, mostly because of the institutional context and of (little) coordination at the country level than because of the project management. Contrary to the involvement of academic institutions, that played a significant role in specific issues, such is the case of UCR, which supported, through the School of Geography, the development of two Women's Geospatial Rallies for the development of technological initiatives that would support the management of the ASADAS and their capacity to adapt to CC. The Project also worked with the UNA, specifically with IDESPO development of a diagnosis), and with its regional office in Liberia. This university has worked hand in hand with the project for the implementation of the GIRA tool in several ASADAS in the area, as well as in the support in different workshops developed jointly with the Water Resources Center for Central America and the Caribbean (lead by this institution) and the Project. Finally, in coordination with CONARE's Subcommittee on Water and Sanitation (CAS-CONARE), which involves the participation of the four public universities, the "Let's Act for Water" campaign was promoted, and a workshop on bio-gardens was held.

The UCR contributed through the development of the topographic survey and the "Update of the Map of Natural Hazards" for the districts affected by processes associated with Hurricane Otto, and proposed zoning for land use, which serves as the basis for the development of the Early Warning System for hydrometeorological events of Upala. In addition, the UTN actively participated in the installation and commissioning of the Upala CEWS, in coordination with AyA, IMN, the Municipality of Upala and Coopeguanacaste. The ITCR, supported in the design and programming of apps to make available information on forest species and pesticides usage, developed by the project.

In an assertive way, the Project promoted the articulation of institutional and intersectoral actors, as in the case of the Intercantonal Group called "Agua y Terrenos", composed of representatives of the local government of Guatuso and the Office of Territorial Liaison of the Central Government, to influence management based on ecosystems in TNN. Moreover, the Project coordinated with INDER, embassies and cooperation agencies to support specific projects for the protection of water sources and initiatives related to adaptation to CC. Reforestation awareness activities developed within the cantonal committees of Environmental Management of the local governments of Upala and Los Chiles.

Trying to solve one of the main problems faced by ASADAS, such as access to financing, the Project worked Banco Popular the development of financial mechanisms that ASADAS can access without the need for mortgage guarantees. Specifically, an important effort was made in including ASADAS in its social development banking portfolio so that the bank can finance their projects (such as funds for management plans or land acquisition to protect water sources) as non-traditional loans, through the existing guarantee fund for MSMEs.

The DCC held seat in the Steering Committee, however, probably due to its incipient involvement during the beginning of the Project, its role was more of accompaniment, and not as protagonist as other institutions such as AyA. This responds more to the limitations in the personnel, than to a lack of will from the institution; in addition its role is centered in aligning efforts with the country commitments at the national and international level.

Linkages between project and other interventions within the sector

The project is not only aligned with initiatives regarding strengthening ASADAS and adaptation to climate change at the national level, but it has also allowed the piloting of actions that are being replicated at the country level with other ASADAS and regions.

As mentioned in the previous section, the support to Fundacion Avina to develop the piloting of a methodology that is being worked on in 11 Latin American countries to implement or strengthen of Comprehensive Care Centers for the sustainability of the OCSAS (Community Organizations of Water and Sanitation Services)[7], stands out. In the case of Costa Rica, the country operates under the concept of Sustainability Centers for ASADAS, and UNDP supported the Communal Water League in the Chorotega region. This FLU plays a critical role in providing services to the ASADAS and, with the support of Avina-UNDP, it went from supporting 17 ASADAS to a total number of 80 (and growing). The League achieved (even though the effects of the pandemic) its break-even point in April 2020 (it was originally projected for July 2020). The piloting was carried out in early 2018 and due to its results, Avina demonstrated its model to the United States Embassy, and thanks to US Embassy´s founding, they were able to expand the scope of the project nationwide with other FLUs. The stakeholders consulted explained that, thanks to the support of the Project, this pilot was tested and proved successful; they also comment on the need to strengthen these second-tier platforms to support ASADAS within a framework adaptation to CC.

UNDP, through the project, was part of the Cooperation Board formed by The Nature Conservancy (TNC), GIZ, Fundecooperación and CEDARENA. This board supports the establishment of the Water Resources Protection Tariff (TPRH) aimed at ASADAS to finance processes for the protection of water sources for the present and future provision of water resources. The process is technically complex and is coordinated with ARESEP, and requires a series of technical studies that represent a high financial investment. The board supported ARESEP and the ASADAS themselves in the development of the

[7] During H1 2021, Fundación AVINA is supporting the North-North ASADAS Union (UANN) in the creation of its Sustainability Center, taking advantage of the lessons learned from the LCA. This strategic support is aligned with the exit strategy of the project. This effort is expected to provide sustainability to the initiatives promoted with UANN by the project in the 5 years of its execution.

studies and the preparation of the requirements to be able to set and request the tariff that would finance said protection projects.

This board worked for the design of the TPRH, but in these moments and after establishing the TRRH design, the support for different ASADAS has been individual by each of these agencies, and in different regions. For example, the UNDP operates in the TNN, and TNC executes (Agua Tica) with ASADAS from the Virilla watershed, and others, such as CEDARENA work with ASADAS in other regions of the country (Limón and Central Valley).

These cooperation agencies, including the UNDP, carry out pilots for the implementation of the TPRH in the field. The Project is working with a group of 5 ASADAS in TNN to establish the TPRH, and, protection plans, cost analysis, support in land acquisition, among others, are being carried out. ARESEP values the support and transparency for this crucial milestone, in order for ASADAS to being able to finance the aforementioned actions. AyA has also been actively involved in this process.

Specific processes, such as the promotion of tools and technical guides for ASADAS developed by the Project, are used by agencies such as CEDARENA in their own interventions. Furthermore, CEDARENA is using (by request of AyA) some of these tools developed in other areas of the country (Greater Metropolitan Area - GAM-), the foregoing within the framework of a new project executed with funds from Euroclima (AFP). This demonstrates the replicability and relevance of the products developed by the UNDP. Allies such as CEDARENA affirm that the difference between ASADAS intervened by the Project versus ASADAS that were not part of it is evident, and that there is a clear development process in the ASADAS involved.

Fundecooperación (National Executing Entity endorsed by the Adaptation Fund, and co-financier of the project) has been a key ally especially regarding the Adaptation Fund "Adapta2". Also, the Project in alliance with the BioFin Program (UNDP) and along with the Ministry of Agriculture and Livestock (MAG) and the National Tourism Institute (ICT), supports the implementation of Tu-MoDeLo (Tourism: Engine for Local Development), program to support small sustainable production in the region, as this activity affects the sustainability of water resources.

The UNDP, through the Project, has strengthened the approach to adaptation based on ecosystems and communities through coordination with the Productive Landscapes Project (GEF-UNDP) by promoting an approach with communities around biological monitoring, species identification and development of actions for the protection of ecosystems around water sources. In addition, this same Project has promoted the strengthening of Biological Corridors. With other projects such as BioFin (Finances for Biodiversity), the Project worked around the "Huella del Futuro" initiative, which aims to raise nearly two million dollars to plant and provide maintenance of 200,000 trees for 5 years.

Furthermore, and agreement between the CTP Upala and the Municipality of the community was supported by the project (and it allowed a fund of 10.000 euros in alliance with BioFin). This in order to strength the nursery of the CTP Upala so that it can became the main supplier of trees and native ornamental species for the consolidation of green infrastructure in the canton (mainly protection zones in farms, agroforestry systems and areas of key importance for water and communities), . Furthermore, BioFin and the Project has supported the development of market studies to consolidate Tu-MoDeLo and thus remedy in some way the limitations that the Project faced in the scope of outputs related with the private sector. In addition, the Project accompanied the Small Grants Program in working with ASADAS in other areas of the country. With UNHCR, it supports a community of (ex) refugees who face a particular situation (institutional-legal) for the formalization of the drinking water supply in Upala. In addition, humanitarian actions have been carried out based on the situation in TNN regarding the presence of migrants in the area.

Gender responsiveness of project design

From its design, the Project recognized the particular situation that women live in the intervention areas and the crucial role they play in community-based water management. For example, in 2017 only 4% of the people on the ASADAS Board of Directors were women, being 16% at the end of 2020. Although it is not possible to establish a direct or causal relationship with the Project, regulations and stimulation of the gender approach undertaken within the AyA itself, may be gradually influencing these changes. Within the gender considerations, a particular focus was proposed in the Prodoc "…on increasing women's access to opportunities for continued personal growth, increasing their leadership skills, and their capacity as agents of change to disseminate adaptive measures throughout the community […] will also improve knowledge and

technical skills by providing training equally to both men and women in sustainable and biodiversity-friendly, water resource management systems and certification, and will empower them to be active participants in influencing public policy ecosystem management […]and sustainable land and water management"(ProDoc, p. 20).

The ProDoc sets goals of at least 50% participation of women in the training process (based on an indicator of 1500 people) related to adaptation to climate change in their livelihoods. In addition, it was considered that at least 40 water security plans (WSP) that incorporate ecosystem-based adaptation to climate change also include gender considerations.

The focus aimed at strengthening the capacities of end users, and in particular, at increasing women's access to opportunities for continuous personal growth, increasing their leadership and their capacity as agents of change to disseminate adaptation measures through the communities in which they live. The approach included a) sustained access to drinking water and sanitation services in conditions of water stress associated with climate change; b) capacity strengthened through training to maintain and improve the use of water and sanitation measures in a context of greater climate impacts; c) access to extension services for sustainable land use and production practices; d) empowerment through their participation in planning processes related to water management; and e) access to credit and incentives to promote the adoption of ecosystem-based adaptation measures to climate change. Furthermore, the Project Results Framework included indicators to ensure that women and men participated in, and benefited equally from the activities. Finally, in accordance with the UNDP Safeguards Policies, the Social and Environmental Procedure at the project level, strategies and indicators were included to improve gender equality and the empowerment of women through the Project.

In a design stage, a strategic approach to the gender perspective was also proposed in association with the INAMU, to promote specific adaptation measures related to the role of women in rural spaces. In addition, it was established that from the very beginning of the project, the UNDP Mandatory Gender Equality Marker would be applied (which responded to the guidelines at the time of design). This included a brief analysis of how the project planned to achieve its environmental objective by addressing the differences in the roles and needs of women and men.

Beyond the design approach, the Project worked under a GEN 2 category in accordance with the parameters established by UNDP, that is, it mainstreams the gender perspective and allocates resources for a comprehensive approach to the issue. Since its implementation, the project hired a gender expert who technically accompanied the execution of the activities and facilitated their mainstreaming. A diagnosis was made in the inception phase to understand the situation faced by women in community-based water management in the intervention areas. In 2017, the GEF policies were modified in relation to gender issues, where the parity approach was transcended and gender equity aspects began to be deepened. In this regard, the Project is also aligned with UNDP gender policies.

As part of the analysis framework, initial workshops were developed to obtain data on the subject of gender and the CAPs (Capacities, Attitudes and Practices in 57 ASADAS in both areas) contemplated a gender approach, among other specific actions. The coordination of the Project gave strategic and central support the issue. The work at the macro level, where the development of strategies and even a Gender Policy for the institution (worked in close coordination with the AyA), stands out; also, an Action Plan for the internal treatment of key aspects related to gender is a model followed by other public institutions. At the meso level, the ASADAS and service providers (such as within the ORAC, FLU, etc.) were supported to upkeep the participation and strengthening the work that women do within their boards of directors and administrative structures. At the micro level, specific actions and activities were developed for women in non-traditional roles, such as training in plumbing, workshops on community water management, technology rallies, among others.

Within UNDP, the ASADAS Project represents a precedent in the way projects are designed, structured and implemented from a gender perspective. This experience has allowed taking into account elements from the conception of ideas that lead to specific projects or programs. The efforts made to deepen the approach on gender equality has resulted in specific recognitions. In fact, the UNDP office in Costa Rica has recently obtained the highest recognition from the Global Gender Equality Certification, and according to informants, the learning from the ASADAS Project was vital to achieving this award.

Social and environmental safeguards

The analysis of Social and Environmental Safeguards Procedures (SESP) includes a description on how the Project would contribute, on the one hand, to issues related to gender equality and the empowerment of women; and on the other, how

it will incorporate environmental sustainability. The guidelines proposed in the SESP (February 2017) were not modified during the execution of the Project.

In general, the promotion of activities to influence the gender equity gaps that may be present in some of the ASADAS and even at the level of public institutions was contemplated. The project generated information and data disaggregated by gender and specific information of age and sex, and the results framework includes gender aspects are reflected. Furthermore, the SESP contemplates the identification of cultural, social, religious or other factors that may impede the participation of women as well as the development of strategies to overcome these limitations.

Regarding environmental development issues, the Projects is centered on "…strengthening the sustainable access to safe drinking water by rural communities through improved infrastructure, organization, and operation and the shared commitment from the communities and institutions for the implementation of ecosystem-based adaptation measures that will allow to cope with water stress, the protection and rehabilitation of water sources and associated aquifer recharge areas, and the adoption of innovative technologies to ensure the long-term availability and access to water "(SESP p. 1). The project also defined to tackle an approach with the full participation of community-based organizations that manage local water supply services, where there is a high participation of women in the management and decision-making structures.

The SESP specifically identified a total of 10 environmental and social risks, most of them with a low risk rating:

Table 5. Risks identified at the SESP

	Risk	Significance
1	The guarantors of rights may not have the capacity to fulfill their obligations with the project.	Moderate
2	Conflicts between at the local level (ASADAS, communities, and end users) could result in claims or disputes regarding management of water resources.	Moderate
3	Some of the project activities proposed will be implemented nearby critical habitats and/or environmentally sensitive areas, including legally protected areas (e.g., nature reserves and national parks), areas that have been proposed for protection, or areas recognized of high ecological importance by valid sources and/or indigenous peoples and local communities.	Low
4	The project involves the harvesting of natural forests, the establishment of forest plantations, or the reforestation of degraded areas.	Low
5	Project outcomes will be vulnerable to climate change impacts	Low
6	The project area is vulnerable to earthquakes, subsidence, landslides, erosion, flooding, or extreme weather conditions, which may have an impact on project activities.	Moderate
7	The project could affect land tenure and/or community property rights, and/or customary rights to land or resources.	Low
8	There are indigenous peoples in the project area	Low
9	The project prioritized areas includes lands claimed by indigenous peoples	Low
10	The project involves the use and/or commercial development of natural resources on lands claimed by indigenous peoples	Low

Source: SESP

Each of these risks had a pertinent analysis and related corrective measures to mitigate them. Within the risk mitigation strategy, the Project contemplated actions such as initiatives for strengthening the ASADAS, provision of material (resilient infrastructure), development of comprehensive risk management plans, improvement of the adaptation capacity of ASADAS and other key institutions, processes of accompaniment to the acquisition of land from an intersectional approach and with the participation of key actors, among others.. Regarding the specific risks related to indigenous populations, specifically the Maleku population, the Project worked under a water resource management approach with the support of the Development Association of the community (ADI) and along with other institutions such as AyA and the academia, respecting the sociocultural elements and the natural environment of the territory and the groups that inhabit it. Likewise, it developed adaptation activities based on ecosystems for the protection of the biological corridor in the indigenous territory. Moreover, consultations, workshops and trainings carried out by the Project included these groups and encouraged their participation in the activities.

Adaptive Management

The original design proposed in the LF an indicator (# 3) on the "Installed water storage capacity (days) to supply water (storage capacity / total average consumption per day)". This indicator was modified by "Hours of storage/percentage of ASADAS" to adapt to national regulations that establish a measurement based on hours of storage, (and not on "days of storage").

During the implementation, the Results Framework strengthened with the mainstreaming of the gender approach and with the incorporation of a Roadmap for the Strategy for the Integration of a Gender Perspective (2018) developed within the executions of activities.

In practice, some indicators could not be met, and although from the first PIR reports the team reported the difficulties that were being faced to execute them, at the Results Framework level they were not modified:

- Number of adaptation-related voluntary fee systems (expanded PES) implemented (5).
- Number of purchasing and credit policies of agricultural and livestock trading companies and financial institutions revised /adjusted (20).
- Number of climate change-related initiatives making use revised purchasing and credit policies of agricultural and livestock trading companies and financial institutions (10).

There were no adjustments to the Reporting Framework (PIR) as an adaptive management measure in an initial phase. This given the absence of the RTA during the cycles of the Project (so as the informants indicated). The Project did not modify the indicators in a more realist way either. . The same situation occurred with the output established in the ToC regarding the installation of water-saving devices in homes (within the component of strengthening the infrastructure and technical capacity of ASADAS to face the impacts of climate change on the aquifers of the target area). And also regarding the pilot sanitation and purification measures (and other adaptation technologies for wastewater management to improve water quality). However, some this sanitation measures were implemented through alternative activities, such as the construction of 2 bio-gardens.

Nevertheless, in the actions carried out within the framework of the Project, specific activities were developed to influence the three indicators mentioned above, as reported in the PIRs from 2018 to 2020. Likewise, a strategy was followed to start conversations with companies in the agricultural sector such as TESCO, CAPA, FYFES and UPALA Agrícola (among others), however, a process of negotiating purchases with private (international) companies or even establishing different rates for investments in ecosystems, requires a time and a negotiation process that would have worn out the implementation of the Project[8]. Prioritizing actions on infrastructure (resilient to climate change), training of ASADAS, strengthening their operational bases (with integration initiatives) and developing technical studies accompanied by tools, guides and work methodologies, was fundamental. Furthermore, as an adaptive measure the Project along with Fundecooperacion supported the development of Tu-MoDeLo. Additionally the Project is working on an exit strategy that aims to facilitate access to financial services by ASADAS, for, among other purposes, investing in "green infrastructure" and ecosystem-based adaptation measures, as well as technical studies (i.e. hydrogeological, hydric, calculations of hydric balances, among others) that increase their management and adaptation capacity. Likewise, the process initiated with the TPRH is another adaptive measure in relation to the access to financial services in the short term for ASADAS.

Although the Project did not work at the household level (especially regarding water saving devices), it implemented awareness campaigns on climate change and its effects on water resources, and initiatives related to the importance of protecting water sources, and its sustainable management in general. Moreover, equipping the ASADAS with micrometers and macrometers (to be analyzed in detail later) is valued as a critical element as it affects not only the measurement of the water captured versus the water supplied by the ASADAS, but also represents a technique for regulating consumption.

[8] The situation with this indicator had problems since: on the one hand, the goal was very ambitious, but on the other hand, a well-planned strategy on how this activity would be approached was lacking: understanding the type of expertise required and hiring a person from the start to begin with a mapping of private actors, develop an effective approach mechanism, follow-up, etc.

Having micrometers in homes is seen by ASADAS as a way to create awareness and a more rational use of water in end users. Additionally, it makes it possible to efficiently charge a fair amount based in water consumption and generate the necessary resources (but not in all cases) to maintain the basic operations of the associations. Another alternative was to establish a pilot project with Bio gardens for the management of gray waters.

In general, the adaptive measures happened in coordination with AyA as the main partner, as well as with the RTA (since 2018). Biannual meetings of the Steering Committee, integrated by the Resident Coordinator of UNDP in the country and the Executive Chair of AyA, were established. The planned activities were communicated and coordinated during these meetings. Due to recommendations made in the MTR and by the RTA, the DCC was incorporated at the Steering Committee. Also the Project begun a more formal and clear process of reporting data to the DCC related to adaptation strategies for the national metric system. Other recommendations from the MTR regarding adaptive management in relation to the indicators not achieved were taken into account.

Actual stakeholder participation and partnership arrangements

Given the Project was executed under the Direct Implementation Mechanism (DIM), and AyA acts as the main partner, there is a formal coordination agreement. In general terms, and in order to achieve the objectives, some activities (related to specific products) were contracted through individual service providers or consultants and were based on the bidding and procurement processes within UNDP regulations. Likewise, materials and equipment supplied to the ASADAS followed the specific purchasing conditions of UNDP. The Project also implemented bilateral cooperation agreements (with counterparts, mainly for studies or financing specific actions to support ASADAS.

The approach implemented with the ASADAS was based on Cooperation Agreements (and not under a model of "donations"), so the Project would contribute with materials, equipment or even the development of technical studies, and the ASADAS would contributed with labor, human resources, time and logistic support.. For broader interventions, the Project articulated actions with PRONAE[9] (National Employment Program of the Ministry of Labor and Social Security that employs people in poverty at the communal level for the execution of public works in the communities). This alliance allowed the ASADAS could carry out activities by hiring people from the community (mainly women employed by the ASADAS using PRONAE funds for tasks such as building water collection systems, changing pipes, installing tanks, among others). This co-investment and co-management approach is key to the sustainability of the actions performed by the Project and, above all, the empowerment and strengthening of capacities at the local level, which also helped understand the need to carry out actions under an ecosystem-based protection and water sources resilient to climate change approach, as a critical elements for the management of water resource.

Other technical studies based on individual contracts were coordinated between the Project team, the ASADAS and the ORAC, allowing a necessary coordination and capacity building system in the organizations. Beyond coordinating annual planning with AyA, the Project team established a direct working process with the ORACs. Actually, two of the people from the technical team of the Project worked at the ORAC offices and actions in the field were coordinated with the Project staff and consultants.

The high appropriation by AyA, the ORAC and the ASADAS, of the work performed in alliance with the UNDP, is evident. In general the stakeholders consulted valued the technical support provided by the Project as highly positive. In the case of the ORACs, support given to carry out a five-year strategic planning process related to the management of water resources as an axis of regional development and territory planning and ordering (before the Project, this process was never implemented). Likewise, the tolls developed by the Project are now part of the daily technical support the ORAC provides to ASDAS and in their overall activities. Some of these tools are the Water Balance Calculator (CBH), Strategic Management Plans (PME), hydrogeological studies, planning and risk management, the Integrated Risk Management of ASADAS (GIRA), among others. The AyA also utilizes these resources at the national level, surpassing the initial scope of work with the ORACs of the Chorotega and Huetar Norte areas; all this tools allow establishing analysis that is more accurate and projections on water availability and contributes to an adaptation-based approach for managing water resources.

[9] https://pronae.info/

Local governments were also benefited, as well as AyA in its role at national level (the tools and some processes promoted by the Project have been scaled up in other areas of the country and the technical guides were incorporated into the regular work of the institution). Based on the experience with the UNDP, they have articulated strategies with other projects, funds and international cooperation agencies in order to continue executing actions related to strengthening ASADAS and its capacity to adapt to climate change.

As mentioned before, the Project was linked in a pertinent and strategic way with other cooperation agencies and civil society organizations through collaboration or by financing studies or interventions in the field. Through institutions such as UCR, UNA, ITCR (in the design and programming of apps) or UTN, agreements were signed and logistics were facilitated (in some cases) for the development of workshops, meetings and trainings such as the Geospatial Rally. A worth noticing example is the work with "Guardianes de la Naturaleza", a grassroots organization in Guanacaste that works on environmental education and awareness campaigns with communities in the region. With the support of the Project, the organization provided printed material to children in the targeted areas; rising, awareness about the importance of conserving the environment and water specifically. The UNESCO methodology for environmental education focused on learning through recreational activities was also used during the Project, with support of UTN.

One element that is considered key to strengthening the ASADAS was the support and facilitation of spaces for open dialogue, knowledge and experience exchange between the ASADAS themselves. The UNDP supported not only the execution of forums such as the National Meeting of ASADAS, but also supported a (complex) process of integration and/or merger of small-scale ASADAS in order to strengthen their management. Based on a technical analysis of the sociocultural, environmental, organizational and even hydrogeological conditions, the project aimed to support the integration of ASADAS in the intervention areas, but at the same time it led to the establishment of exchange processes between ASADAS and FLU. The work of articulation with FLUs and horizontal coordination between ASADAS as a more comprehensive strategy produced a sense of associativity and generated an important social network, especially in some of the ASADAS in the Northen region and the TNN. In the case of the Chorotega region, the role of the Communal Water League was decisive.

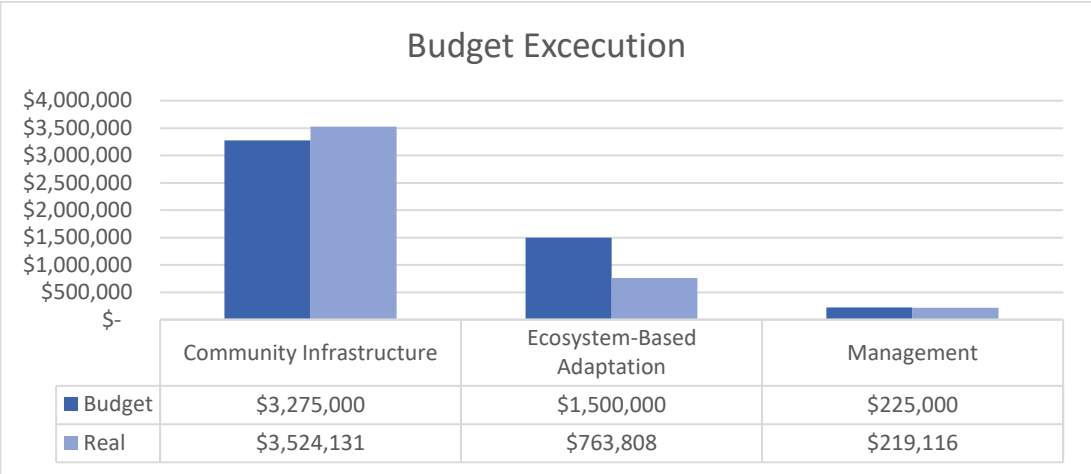
At the intersectoral and inter-institutional level, the Project facilitated coordination boards such as "Agua y Terrenos"; and supported the environmental management committees of the municipalities of Upala and Los Chiles. In general, the project strategically positioned the issue of adaptation-based measures in relation to water resources at the micro, meso and macro levels. The project is developed from an adaptation approach based on ecosystems, communities and infrastructure (resilient and based on risk management). It supported a comprehensive approach, assessing climate change issues and the need to think about long-term solutions. It collaborated with generating information and provision of technical equipment to the AyA, IMN, CNE, and other public entities such as local governments and academia. Finally, it promoted the incidence of other international cooperation initiatives.

From a gender perspective, the Project was a pioneer regarding the alliances generated with AyA and other key institutions such as INAMU, but also by supporting the design of other projects (including GEF) within UNDP (at the country level). Beyond the fact that the project included measures to address gender gaps, risks and impacts differentiated by gender, key strategies were supported so that the gender approach was strengthened within AyA and ASADAS themselves. The Project team participated actively in the process of revision and analysis of the draft for the Comprehensive Reform to the ASADAS Regulations, in order to influence the reduction of barriers to equality in terms of the participation of women in decision-making processes of the ASADAS. It also supported the development of the Gender Policy and Action Plan within AyA, with proposals and changes that have even been accepted and endorsed by the AyA´s union. Regarding field work, mechanisms were used to improve the equitable participation of women in training activities, for example, it was a requirement for ASADAS to participate in workshops that be represented by a male and a female representative.

Financing and Co-Financing

The analysis of the budget execution based on the information and the interviews with the technical team reveal an appropriate management of the financial resources. Specifically, and regarding the budget presented in the ProDoc, it is clear that there were substantive variations between the amounts assigned to the activities of Community Infrastructure and Ecosystem-Based Adaptation, as shown in the following graph:

Graph 5. Budget Execution

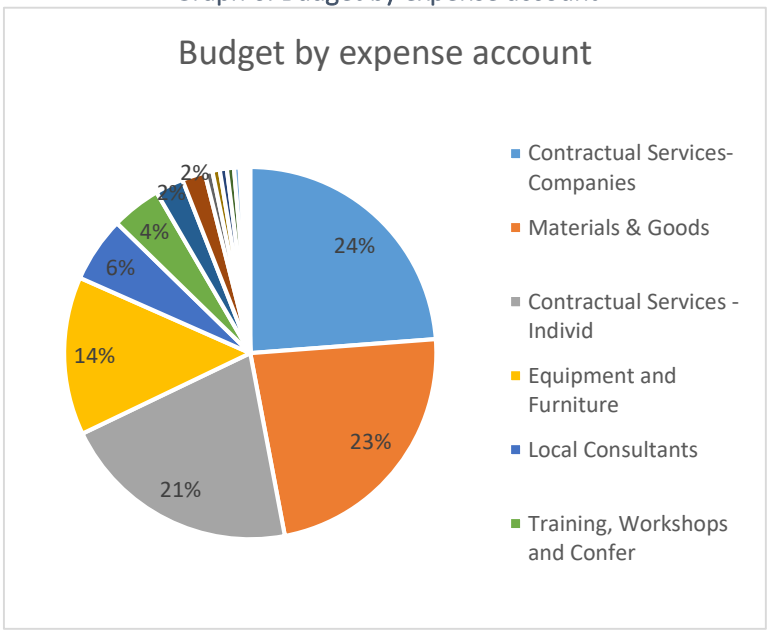


	Community Infrastructure	Ecosystem-Based Adaptation	Management
Budget	$3,275,000	$1,500,000	$225,000
Real	$3,524,131	$763,808	$219,116

Source: Own elaboration based on project information.

The distribution at the expense account level also shows important differences. The following graph shows the distribution of the budget by line of expense, which also reflects the main activities planned and their specific investments.

Graph 6. Budget by expense account

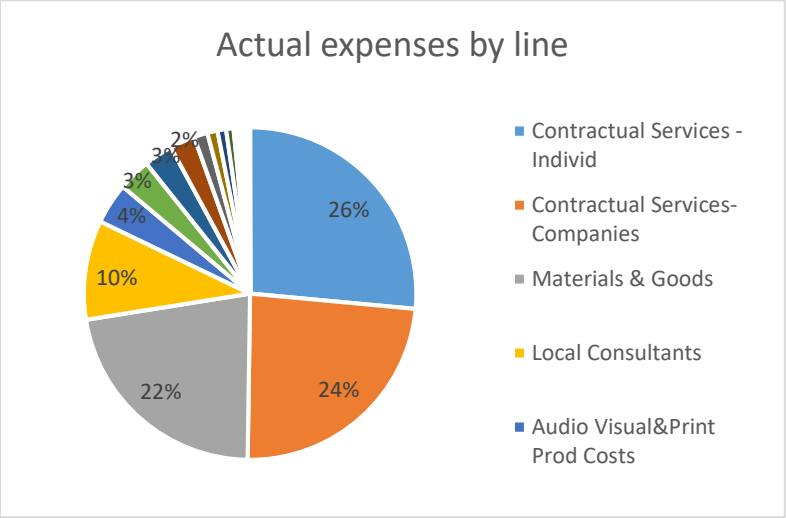


Source: Own elaboration based on project information.

The information above shows that a quarter of the budget resources were allocated to services contracted to companies, 23% to Materials and Goods and 21% to services contracted to individuals.

In real terms, the distribution at the level of expenditure varied significantly in some lines. The graph below illustrates the actual distribution (as of at the end of 2020) executed: 26% of the real expenditure was invested in services contracted individually, while 24% of the investment was allocated to services contracted to companies. Materials and Goods accounted for 22% of total real spending. The item of local Consultants that had been budgeted in the order of 6% of the total amount, had a real expenditure of the total of 10% of the budget. While the equipment and furniture line, originally budgeted for 14% of the total, ended up being just 2% as shown below:

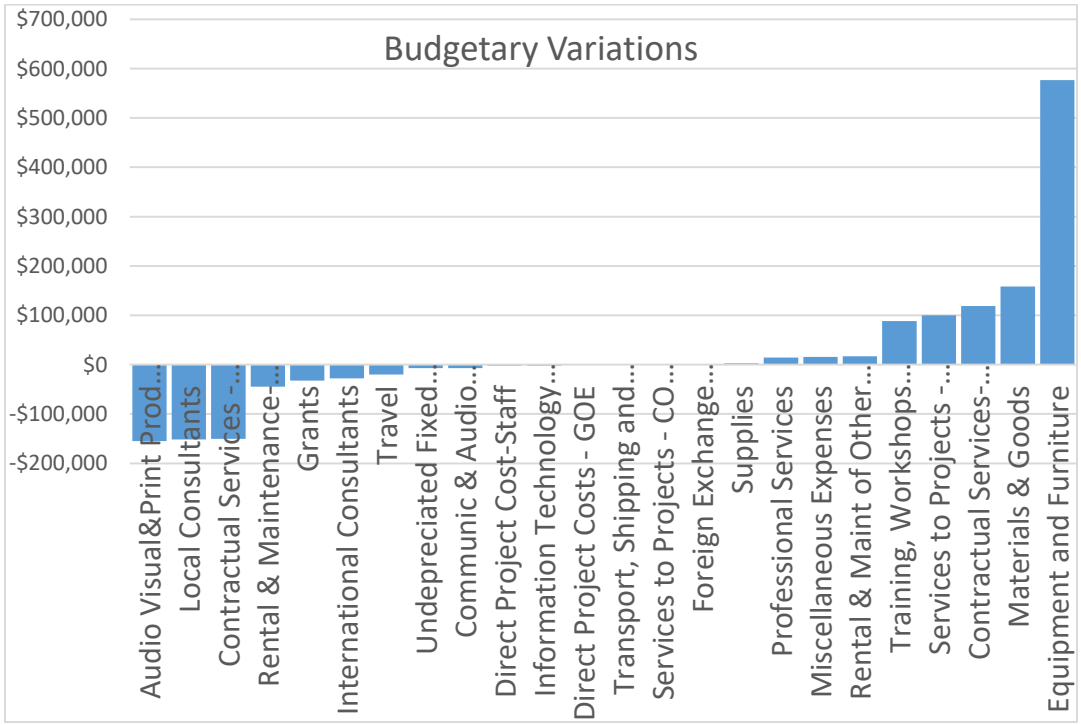
Graph 7. Actual expenses by line



Source: Own elaboration based on project information

The differences in absolute terms between items can be seen in the following graph. There are accounts that show a relevant negative variation with respect to the budget. This is the case for audiovisual and print production, local consultants, services contracted to individuals, rental and maintenance of facilities, as well as grants. With respect to the under-executed budget lines, the lines of equipment and furniture, materials, and goods and services contracted to companies, present a sub-execution larger than $ 100,000, as shown below.

Graph 8. Budgetary variations



Source: Own elaboration based on project information

In the following table, the team explains the reasons for the largest variances:

Table 6. Detail of Budgetary Variances

Budgetary variances

	Budget	Real	Delta	Comments*
Equipment and Furniture	$687,100	$110,093	$577,007	The equipment and furniture that the project acquired has been limited only to what is necessary for the performance of the technical and administrative tasks of the team, which is small.
Materials & Goods	$1,160,975	$1,002,740	$158,235	At the end of the project, it is planned to execute approximately $ 110,000 additional in Materials and Goods that will be used to improve the infrastructure of ASADAS.
Contractual Services-Companies	$1,190,000	$1,071,245	$118,755	Depending on the nature of the consulting services, they have been hired through the individual consultant figure, which has considerably increased the budget for that account.
Services to Projects - GOEs	$100,000	$8	$99,992	The expenses have been distributed in other accounts such as office maintenance and rental, security and cleaning services, common services, and connectivity expenses among others, which correspond to expenses for the operation of the project in administrative terms (location of the office).
Contractual Services - Individ	$1,043,100	$1,193,495	-$150,395	The project's field activities, the strong communication strategy and the need to guarantee the integration of the gender perspective in all the actions undertaken have required the permanence of a trained technical team. In addition, the extension of 3 additional months of execution caused the variance.
Local Consultants	$283,800	$435,514	-$151,714	Consultancies that were initially destined to be carried out under the figure of Contractual Services-Companies have been transferred to the account of individual consultancies, in order to facilitate coordination to obtain the required products even at a lower cost.
Audio Visual & Print Prod Costs	$25,000	$179,563	-$154,563	The project had a strong communication strategy, through which two awareness campaigns have been developed, audiovisual and written materials have been generated to relate life stories of the communities in relation to their community-based water management.

Source: Own elaboration based on project information.
*Comments by the Management Team.

Regarding financial information, from the analysis performed and based on the level of detail provided by the Project administration, it can be assumed that the management and the technical team had access to information in a timely and appropriate manner. It facilitated the decision-making process. Likewise, during the gathering information process and interviews with the administrative team, the TE did not spotted any issues related to payments to suppliers or with the execution of financial resources in general.

Information related to Co-Financing is presented in the table below. Because of how the co-financing is structured at the ProDoc, and analyzing the agreements of co-financing established in the letters issued by the Project partners (which indicate that this contribution will be made based on the regular execution of the institutions), there is no way to assess how the funds were executed by the partners. It must be assumed that the resources were effectively allocated since it is evident that the institutions had an active participation during the Project and in its operations were held regularly. However, the evaluation team recommends that the future development of instruments that allow gathering real information regarding the contributions (in all kinds) to the project made by other partners. This, in order for the team to assess whether the funds compromised were actually executed in the project. In other words, it would be interesting to know how AyA, for example, designated funds for the strengthening of ASADAS or the execution of other cooperation agencies and the how those investments impacted the project.

In general, and following GEF´s guidelines for TE, the projected co-financing within the framework of the Project is presented below:

Table 7. Co-financing of the project

Co-financing (type/source)	UNDP (US$m)		Governmnet (US$m)		Partner Agency (US$m)		Total (US$m)	
	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual
Grants	450,000	450,000	13,650,000	13,650,000	4,808,949	4,808,949	23,908,949	23,908,949
Loans/Concessions								
In kind support			7,750,000	7,750,000			7,750,000	7,750,000
Others								
Totals	450,000	450,000	21,400,000	21,400,000	4,808,949	4,808,949	31,658,949	31,658,949

Source: Own elaboration based on project information.

At the end of the TE, the confirmed sources of Co-Financing were the following:

Table 8. Confirmed Sources of Co-Financing at TE Stage

Sources of co-financing	Name of co-financer	Type of co-financing	Investment Mobilized	Amount (US$)
Donor Agency	UNDP	Grant	Investment mobilized	$450,000
NGO	Fundecooperación	Grant	Investment mobilized	$1,850,000
NGO	CRUSA	Grant	Investment mobilized	$1,385,898
Government	AyA	Grant	Recurrent expenditure	$12,323,051
Government	AyA	In kind	Recurrent expenditure	$5,650,000
Government	IMN	Grant	Recurrent expenditure	$2,900,000
Government	IMN	In kind	Recurrent expenditure	$2,100,000
Total Co-Financing				**$26,658,949**

Source: Own elaboration based on project information.

Since 2019, the project has executed an average of 85% of the resources corresponding to the annual work plan. Due to the pandemic, during 2020 a percentage of the budget was transferred to first quarter of 2021. At the close of the evaluation analysis, of the total $ 5,000,000 available, a total of $ 4,556,880 had been executed corresponding to a 91 % of the budget. Of the remaining amount, the projection for the closure of the project's regular operation during 2021 is estimated at $ 208,539, which would raise budget execution to 95%. It is projected that the funds will be executed in a timely manner in these months of closing of operations and that the scope of the operations to be expanded to complete the execution of the budget by 100%.

Monitoring and Evaluation

Table 9. M&E Rating

Monitoring & Evaluation (M&E)	Rating
M&E design at entry	Satisfactory
M&E Plan Implementation	Satisfactory
Overall Quality of M&E	Satisfactory

As indicated in the table above, the TE considers the Monitoring and Evaluation (M&E) actions as satisfactory. As established by GEF´s guidelines, this means that there were minor shortcomings; the quality of the M&E design/implementation met expectations (GEF, p. 53). The rating for each of the three aspects mentioned is rated as satisfactory (scale 5 out of 6 possible points).

As a summary, the basis for the analysis of this rating is presented as follows:

- ✓ Funds for M&E were explicitly allocated.
- ✓ Clear PIRs were submitted annually, providing detailed summaries and concise data on project performance. The four PIRs had a satisfactory qualification.
- ✓ The Steering Committee met annually and the technical committee (AyA-UNDP) carried out annual planning processes, maintaining close coordination at the central and regional levels (ORAC), and providing periodic feedback.
- ✓ The Project kept a record of the activities performed in relation to the fulfillment of the project's performance indicators through the Tracking Tool for GEF´s reporting process.
- ✓ The project team developed internal tools for monitoring indicators and results at the technical and financial level.

- ✓ Relevant information was provided to the Monitoring and Evaluation Officer, for the internal report to UNDP purposes.
- ✓ The results framework was not adjusted, but the alternative actions that were implemented to contribute to the indicators that were identified as difficult to meet since 2017 were duly reported.
- ✓ Mid-term evaluation was carried out on time and the response management and tracking tool was used as a reference for adaptive management.
- ✓ UNDP followed up on the implementation of the project to ensure its compliance in a timely manner (based on the Annual Operative Plans -AOP-), it also reviewed budget execution on a quarterly basis. The secondary and primary sources assessed the M&E performed as pertinent. Consecutively, in coordination with the M&E officer for UNDP, an analysis of the risks (from corporate aspects) is performed, and the quality of the M&E activities is evaluated based on a form in three different stages: at the design, implementation and closure of the project and it is reviewed with the UNDP Environment Officer.
- ✓ Finally, the way in which the Project contributes to the CPD and UNDAF of UNDP and to the United Nations System at the national and regional levels in general, is analyzed.

Design of M&E at entry

The M&E plan was based on the guidelines and requirements established by the GEF and USD $ 102,000 were allocated to address M&E activities in the original budget approved in the ProDoc. The M&E plan was reasonably extensive, sufficient activities and funds were allocated. The total investment for M&E was approximately 2% of the USD $ 5,000,000 execution budget (GEF grant). Cost estimation was completed using the standard M&E project document template used for GEF´s funded projects, and an expanded version was produced prior to the project kickoff workshop, including more details on reporting timelines.

Baseline information was properly gathered, including the use of the UNDP Financial Scorecard and the GEF´s Management Effectiveness Tracking Tool.

M&E Plan Implementation

The Project began with an inception workshop in August 2016 in both intervention areas and in San José, with broad participation from ASADAS as well as other key institutions. The workshops served as an opportunity to present the contents and strategies of the Project and allow the participation of stakeholders at all levels. Nonetheless, no adjustments were made to the results framework. If a critical path analysis had been done at that time, the team might have been in a position to highlight the technical difficulty involved in raising such ambitious indicators with the private sector.

Overall Quality of M&E

The team performed an adequate labor of reporting and communicating in a timely manner the progress, limitations (planned or not) and scope of the project (in the PIR reports). GEF´s monitoring tools were diligently prepared, and the team provided all the quantitative information available. Some of the aspects that stood out in the mid-term evaluation (MTR) regarding M&E, aimed to strengthen the information dissemination systems, results and lessons learned that were executed based on the information derived from the Project and through communication products, workshops and technical guides, among others. A process of systematization of the achievements and results and especially of the materials available to the ASADAS, the AyA and the organizations that work to strengthen integrated water management, is still pending; this process is part of the Project's exit strategy. Specific elements, such as updating results of the gender mainstreaming matrix to measure progress regarding gender strategy, by reviewing indicators for the second phase of the Project (also raised in the MTR), were taken into consideration in the second execution period.

UNDP implementation/oversight, Implementing Partner execution and overall assessment of implementation/oversight and execution

Table 10. Implementation/Oversight & Implementing Partner Execution

UNDP Implementation/Oversight & Implementing Partner Execution	Rating
Quality of UNDP Implementation/Oversight	Highly Satisfactory (HS)
Quality of Implementing Partner Execution	Satisfactory (S)
Overall quality of Implementation/Oversight and Execution	Highly Satisfactory (HS)

Quality of UNDP Implementation/Oversight

Regarding the quality of execution and supervision by UNDP, the TE, after an examination of the documents, the outputs and the information gathered with key stakeholders, rates it as **highly satisfactory**: there were no deficiencies; the quality of the implementation/execution exceeded expectations, which means an evaluation of 6 out of 6.

UNDP plays a leading role in assisting and supporting civil society in the country on human and sustainable development issues and has extensive experience in implementing GEF funds. UNDP and the ASADAS Project team is integrated by highly qualified personnel with skills that allow them to articulate with the government, donors and civil society networks, promoting incidence on the issues discussed and establishing innovative methods for integrated water resource management with ASADAS based on ecosystems-based adaptation approach, infrastructure, communities and risk management. This has been crucial to ensure the quality of the project both in terms of its design (perhaps ambitious at the beginning) and formulation, as well as in the supervision and monitoring level.

The implementation process (by the team and consultants) was highly satisfactory and the team is valued as a high-quality and multidisciplinary one, with strategic capacity to understand the needs of the ASADAS and the outstanding institutional context. This is also widely recognized by the parties consulted during the TE. In the same lines, hiring consultants to carry out specialized studies or support processes was a successful strategy, and the purchase bids were made under the UNDP guidelines and without exceeding the budget. Purchase and provision of equipment and infrastructure with specific characteristics of resilience to extreme climate events to the ASDAS, is worth noticing.

UNDP exceeded expectations in the development of technical tools for ASADAs (such as GIRA, PME, Water Balance Calculator, Guides for the application of methodologies at the ASADAS level, among many others), that facilitate complying with the regulatory framework and requirements at the national level that ASADAS must fulfill in regard of risk management. These guides, instruments and tools (documented with a high quality level) transcend the temporal and geographical scope of the project and are being used by AyA and ORACs in other regions of the country, as well as the LCA and other FLUs and even by others international cooperation projects; an example is the PRIORIZA[10] viewer, which has been presented at international forums hosted by the UNDP's Green Commodities Program.

The project also established innovative methods for calls and development of workshops and activities in accordance with the reality and possibilities of the ASADAS, and through partnership with stakeholders such as the academia, where the "UNDP seal" was relevant for the legitimacy of the interventions and the commitment of ASADAS and key stakeholders.

In general, UNDP provided technical assistance in procurement, contracting, monitoring and evaluation, resource and knowledge management, promoting the creation and documentation of best practices, among others added values that stand out.

Quality of Implementing Partner Execution

AyA is considered as a partner given its role in the provision and supervision at the national level of the provision of water for human consumption. It is evaluated as satisfactory with a qualification of 5/6, in other words, there were no minor deficiencies or none at all and the quality of implementation/execution met expectations.

[10] https://aya-lna.shinyapps.io/fuentes-cultivos/

From the headquarters of AyA, as well as from the ORACs, the involvement from the institution in the Project was satisfactory and there was a significant openness and appropriation for actions to be implemented within the Project. The weight and value that the informants gave to the technical and human support of the Project on the subject of ASADAS and especially the support at the level of the daily work at the ORACs in the two regions, stands out. It should be noted that the ORACs serve a large number of ASADAS in both areas, with little and limited personnel to efficiently attend to all of the technical support demanded on a regular basis. The situation exceeds the management capacity of the ORACs and the limitations presented are related to bureaucratic processes, regulations, lack of budget and lack of personnel, rather than technical capacities within the offices.

The contribution made by the Project g so that the ORACs start planning in the medium term with a focus on land use (regional development and territory ordering) and the implementation of technical tools is significant and contributes to the work carried out at the regional and central levels. The National Water Laboratory was also strengthened as the Project contributed with personnel (individual hiring) for the development of technical studies related to the presence of agrochemicals in water sources, as well as providing equipment to the Laboratory. The Project promoted dialogue and support within the same institution, which was valued as very significantly. Other aspects such as the joint development and pilotage of the "Prevention, Monitoring and Response System" to incidents with agrochemicals in water sources (integrating prevention measures through green infrastructure activities in protection zones); local, cantonal and territorial mobilizations for water (coordinated with different institutions); as well as the development of geospatial tools to prioritize threatened water sources (PRIORIZA), are worth noticing.

Furthermore, the project also supported monitoring activities along with the LNA providing personnel, equipment, supplies and studies, in order to broaden the spectrum of substances that can be detected in the water (as well as the monitoring of water sources in ASADAS threatened by the proximity of pineapple plantations). Response to this type of situations is being consolidated with the strengthening of the SIG ASADAS of the ORAC-HN and the development of emergency response procedures including contamination from sources.

Beyond the management capabilities of the AyA and the personnel involved in the Project, bureaucracy at a national level is complex and water management activities have normative and regulatory aspects that make it difficult to execute specific processes related to the topic.

Overall quality of Implementation/Oversight and Execution

The quality of UNDP to execute the ASADAS Strengthening Project is outstanding. Because of all the different laws, regulations and institutional aspects involved in management of water resource at the national level, it is very complex to develop projects related in this sector. The UNDP managed to boost significantly the work made by ASADAS in the northern region of the country and raised awareness about the need to manage water resources taking into consideration vulnerability to climate change and risk management. The quality of the communication outputs produced and the technical studies developed, as well as the guides and tools, also stand out. The issue of gender was wisely approached and, although cultural, organizational and normative processes were respected, actions raise awareness regarding equity gaps between men and women at the ASADAS and the AyA.

It is worth noticing the execution of the Project during 2020, related to the COVID-19 Pandemic. Even though the team faced limitations in mobilization, remote working and different barriers, the Project did not stop. A portion of the budget assigned for 2020 moved to 2021, but it did not imply a pause on the Project actions. This fact was pointed out by different stakeholders interviewed and the DCC itself recognized UNDP as a key partner (because of this Project) that fosters adaptation-based measures in relation to water resources management in the country.

The legitimacy and quality of UNDP's work provides important supplies, not only for the ASADAS in the North of the country, but also at the national and institutional levels.

Risk management

As mentioned in previous sections, there were seven risks related to possible political and institutional aspects identified in the Project design. No environmental risks were identified at the beginning, however, the Project had to face, at its very beginning, the challenge of the consequences brought by Hurricane Otto at the end of 2016. The Project immediately articulated actions, especially in the TNN and the North Region in order to support those ASADAS impacted, and it established strategic alliances with key institutions (i.e. local governments, local emergency committees, and the CNE, among others).

The 2017 PIR included an environmental element in the analysis of critical measures for risk management: The occurrence of natural disasters in the target areas can negatively affect ASADAS and the availability of water resources, as well as safety conditions for the regular development of the project. The project has generated strategic alliances with key partners and is maintains systematic communication with counterparts and ASADAS, in order to provide aid in the event of extreme natural disasters. The security situation in a given emergency situation will also be assessed on a case-by-case basis (PIR 2017).

During the TE, it was corroborated that strategic actions regarding disaster management have been significantly strengthened by the Project's intervention since 2017, especially in the municipalities of Upala and Guatuso, and through communication networks of local emergency committees, where ASADAS actively participate. The experience of Upala served as a model to be replicated at the Chorotega region and processes were tested in natural disasters such as the Iota and Eta hurricanes during 2020, and even at the management of the COVID 19 emergency. In addition, based on lessons learned and best practices, the Project has implemented a pilot initiative with the Liga Comunal del Agua and the Unión de Acueductos Norte, developing a model of reciprocal assistance between ASADAS affected by emergencies and disasters, under the leadership of said FLUs.

The 2017 PIR also identified a new risk, associated with the change of government in February 2018. It was stated at that time that there was a very high probability that many or all institutional authorities and technical personnel with whom the Project was being coordinated could change, thus, impacting the results of the project. Nonetheless, this risk did not materialized as the same political party was reelected and thee work plan was not significantly affected.

During 2018 and 2019 no new critical risk management measures were identified (as reported in the respective PIRs). It is until 2020 that COVID 19 is reported as a social and environmental risk: In line with the recent increases in infections in Costa Rica, the current COVID-19 pandemic should be added as an operational risk for the project, its goals and performance expectations. In order to compensate for the delays incurred during 2020, due to social distancing measures and changes in government and local authority priorities, the project will request an unfunded extension from the GEF SEC, for an additional 3 months period (PIR 2020).

The risk analysis is pertinent, and the corrective actions to face these risks were efficient and constant during the operation of the Project. Adjustments were properly discussed by the Project team and with the UNDP office and RTA, as well as with strategic partners. Regarding the COVID 19 emergency, ASADAS were closely monitored as key organizations in facing the pandemic situation. Actions such as chlorination processes and rising awareness of the importance of water (hand washing) as a protective shield against the virus, were be promoted. The project undertook this critical situation to highlight the humanitarian and environmental work carried out by the people involved in water resources management at the community level.

Social and environmental standards

The table below shows the risks that were identified by the Project in the social and environmental assessment performed back in 2017. Looking at the different documents of the Project (mainly the 4 PIRs produced), it was found that they were not changed or adjusted during the execution period. Following GEF´s guidelines, the findings table also contains the findings made by the TE regarding such risks:

Table 11. Social and environmental risks evaluated

Original risk (in Prodoc)	Revised Risk	Original Rating (I/L & Significance)	Revised Rating (I/L & Significance)	TE Findings on the revision*
The guarantors of rights may not have the capacity to fulfill their obligations with the project.	NA	Moderate	NA	Although there is an overload of obligations within the AyA (especially in the ORAC), the obligations established were met.
Conflicts between at the local level (ASADAS, communities, and end users) could result in claims or disputes regarding management of water resources.	NA	Moderate	NA	No conflicts were reported or identified at the local level, and there is general satisfaction with the support of UNDP and the way in which the Project was executed.
Some of the project activities proposed will be implemented nearby critical habitats and/or environmentally sensitive areas, including legally protected areas (e.g., nature reserves and national parks), areas that have been proposed for protection, or areas recognized of high ecological importance by valid sources and/or indigenous peoples and local communities.	NA	Low	NA	The Project respects the regulations and socio-cultural and organizational structures at the community level. The TE did not find any conflicts in this regard.
The project involves the harvesting of natural forests, the establishment of forest plantations, or the reforestation of degraded areas.	NA	Low	NA	The project did not implemented extractive activities within protected areas. The use of water resources within protected areas did not have an impact on them. As for the aqueducts whose sources are located within the area of indigenous lands, they are in operation and provide drinking water to indigenous and non-indigenous communities alike without any conflict.
Project outcomes will be vulnerable to climate change impacts	NA	Low	NA	The results, far from being weakened by CC issues, supported the strengthening of the adaptation and resilience capacity of ASADAS, and supported the protection of water sources with an ecosystem-based approach and resilient infrastructure (as well as risk management).
The project area is vulnerable to earthquakes, subsidence, landslides, erosion, flooding, or extreme weather conditions, which may have an impact on project activities.	NA	Moderate	NA	The project incorporated actions to reduce the vulnerability of water supply systems, including a risk analysis aimed at identifying and reducing the vulnerability of water sources, distribution infrastructure and water service facilities, and increased the capacity continuity of drinking water supply in case of force majeure.
The project could affect land tenure and/or community property rights, and/or customary rights to land or resources.	NA	Low	NA	The project did not affect, but rather had an impact (in some cases) on land tenure or community property rights. It intervened in adaptation measures for the water supply and, as such, the only relationship that this project had with land tenure problems was when a specific ASADA implemented land purchase processes to capture water. Even in such cases, the project did not provide funds for the purchase of land. The project followed all the procedures described in the Costa Rican legislation related to land tenure and community property rights to avoid any conflict with respect to land property rights and the rights to use water resources, including community and/or customary rights. The Project supported the strategic vision for ASADAS to project the present and

				future need to protect their water sources under models that consider CC.
There are indigenous peoples in the project area	NA	Low	NA	The Maleku people and their representative organizations participated in the project through their own administrative structures (aqueducts are managed by development associations, not ASADAS). The Maleku people is one of the project stakeholders. There was no conflict regarding access and use of water due to existing arrangements that ensure that natural resources are provided equally to indigenous and non-indigenous communities, including water services. The project established a collaboration agreement with the local authority of the MALEKU people, the Integral Development Association (ADI).
The project prioritized areas includes lands claimed by indigenous peoples	NA	Low	NA	
The project involves the use and/or commercial development of natural resources on lands claimed by indigenous peoples	NA	Low	NA	

Source: Own elaboration based on project information and under TE-GEF format
*Findings reflect current situation of the risks identified.

The overall risk was considered moderate, and it was not adjusted in the SESP analysis performed in 2017, which is in line with the principles and analysis of the UNDP analysis framework. The project contributes to Principle 1 of Human Rights, since it pays special attention to strengthening the technical, operational and management capacity of ASADAS to ensure that they can provide high quality services to end users, given water has ratified as a Human Right in Costa Rica. At the same time, it contributes to biodiversity conservation and natural resource management; mitigation and adaptation to climate change; community health, safety and working conditions; displacement and resettlement and indigenous peoples.

The Project noticeably examined potential and social risks for other issues such as gender related issues and other possible risks, previously mentioned above. The corrective measures that were defined were positive, and the project is not considered to have had a negative impact on the standards defined by UNDP as part of the SESP.

Project results and impacts

General results

The achievement of the project objectives is rated as: Highly Satisfactory

The general objective of the project was to improve water supply and promote sustainable water practices of end users and productive sectors by advancing community- and ecosystem-based measures in ASADAS to address projected climate-related hydrological vulnerability in northern Costa Rica.

Even though the Project has presented some limitations that have been already described in this report, it managed in a highly satisfactory way to improve the supply of water resources in the target areas (see Annex 10). This was achieved through strategic interventions in coordination with key stakeholders and with the ASADAS, mainly through changes in infrastructure (which was one of the main deficiencies that the ASADAS presented before the Project), as well as development of capacities to improve the management of water resources, organizational strengthening, and awareness about climate change, among other key elements.

Moreover, and through different mechanisms, the Project worked with the communities (communal water managers) to provide tools so that they could implement different practices by themselves, not only related to saving- and appropriate use of- water resources, but also for the conservation and protection of water sources for the future and considering climate change.

Other key elements performed by the Project were the development of highly relevant actions in relation to risk management at ASADAS, local governments, public institutions and with the communities themselves, highlighting the importance of the role of water resource managers in emergency situations and articulating with the different emergency committees and associations. The generation of spaces for safe dialogue between institutional agencies, public institutions

and different sectors at the local level, is fundamental. As a result of the project, dependencies of AyA itself that did not coordinate or even talk to each other, are now coordinating joint actions and exchanging information. Furthermore, the spaces for dialogue at the cantonal and water basin/biological corridors level are being nurtured with the participation of ASADAS, due to the mediation of the project.

Although, as already described in the report and detailed later in this chapter, some outcomes were not achieved (mainly due to weaknesses in the design and the reality of the country, rather than Project management capacities); it can be stated that the achievement of the proposed result was generally satisfactory since different ways of achieving the same objectives were explored through alternative routes. In some cases, the results went above and beyond what was originally planned in the project and it achieved important results in topics such as gender equality, community- and ecosystem-based adaptation, resilient infrastructure and risk management, development of guides and tools, implementation of workshops and trainings, integration of ASADAS and strengthening of FLU, among many others.

In summary, the project presents a mixed achievement of its indicators, since some of them have been exceeded while others have not been achieved. A summary of achievement of the indicators is presented in Annex 10:

In order to understand in detail the results achieved by the project, an analysis of outcomes and outputs is presented below:

Outcome 1.1 - Infrastructure and technical capacity of ASADAs strengthened to cope with climate change impacts to aquifers in the target area

Budget:
Co-Financing: $10,259,000
SCCF project grant requested: $1,794,700
Rated as: Satisfactory.

The indicators related to the achievement of this outcome were: 1) Proportion of ASADAS with continued water availability for different time periods and b) water availability per capita. Both indicators were not only reached but surpassed, according to the information analyzed during the TE.

Regarding the number of ASADAS with continued water availability during more than 5 months, 100% of them meet this criteria. Moreover, 93% of the associations managed to provide uninterrupted service during the year. These figures are in line with the information collected through the survey carried out by the evaluation team (see Annex 7). Even though this survey did not cover 100% of the ASADAS benefited by the Project, it statistically supports the results. The evolution of this indicator since the MTR is illustrated below:

Table 12. Water availability

Water availability	BL	2019	2020	2021	TARGET
12 months	78.2%	89.0%	93.0%	93.0%	90%
9-11 months	2.2%	9.0%	6.0%	6.0%	5%
6-8 months	4.9%	1.0%	1.0%	1.0%	5%
3-5 months	4.9%	0.5%	0.0%	0.0%	0
< 3 months	8.0%	0.5%	0.0%	0.0%	0

Source: Own elaboration based on project information

In relation to water availability per capita, the objective was to maintain or improve the indicators obtained in the baseline (2015). As shown in the table below, this goal was broadly exceeded:

Table 13.Water per capita

Water per capita	BL 2015	PIR 2019	PIR 2020	PIR 2021	TARGET
<200	1.8%	2.9%	3.4%	3.5%	1.8%
201-500	6.2%	15.5%	19.7%	17.7%	6.2%
501-1500	29.1%	36.9%	44.3%	44.4%	29.1%
1501-5000	11.9%	10.7%	11.3%	16.2%	11.9%
5001-10000	3.1%	2.4%	2.5%	2.5%	3.1%
>10000	2.6%	1.0%	1.0%	1.5%	2.6%
No data	45.4%	30.6%	17.7%	14.1%	45.4%

Source: Own elaboration based on project information

It should also be noted the work that the team undertook so that the number of ASADAS with no data was reduced to less than a third of the BL, from 45.4% to 14.1% at the latest information obtained.

This outcome was intended to be achieved through 5 different outputs, focused both on the infrastructure of ASADAS and water saving devices in the households, namely:

Output 1.1.1 – Strengthened metering systems to track water supply to end users (micro- and macro-meters) in the ASADAS network provide updated information on climate-related risks and vulnerability of project area water resources.

Rated: Highly Satisfactory.

The project tackled the need to install measuring instruments (micro and macro meters) that would support the water resources management by, not only generating data and key information for ASADAS regarding production and consumption of water by end users, but also for charging users according to the actual consumption. Before the intervention of the Project, many ASADAS charged a fixed monthly fee, regardless of the consumption. This situation implied an irrational use of the resource and severe financial limitations for the associations.

Initially, the project aimed to install 5,000 micro meters but, in its execution, a total of 10,346 micro meters were delivered to the ASADAS, both for the installation of subscribers that did not have micro meters, as well as for the replacement of damaged or extremely old ones that did not account for actual consumption.

This equipment allowed ASADAS to strengthen its finances, as they were able to charge based in consumption made by (second component of this output), but it also increase water availability, due to a responsible consumption of the water resource and less waste. This also generated an immediate process of awareness regarding the monetary and natural value of the water for end users.

Additionally, with the installation of macro-meters (85 delivered, and most of them installed, according to the verification carried out through the field mission and the survey), ASADAS are now able to analyze information regarding unaccounted-for water, helping them detect leaks or illegal connections in a more efficient and accurate way and, by doing so, improving water availability and protecting water resources.

Lastly, the third component of this output related to the access to *updated information on climate-related risks and vulnerability of water resources available to decision-makers in the prioritized ASADAS and to the AyA*. The project raised the need for vulnerability studies to provide a comprehensive vulnerability assessment in the targeted cantons that will help to determine the need, form, and frequency of further specified climate information services. Such studies were carried out and reported already at the MTR; also, risk studies were carried out for all the cantons in the target area. The IMN carried out the study called “Description of risks related to extreme hydrometeorological events in the north of Costa Rica. Cantons of La Cruz, Nicoya, Hojancha, Liberia, Carrillo, Cañas, Santa Cruz, Guatuso, Los Chiles and Upala”, which served as an input for the Project. The study was shared with ASADAS, Municipalities and other organizations of interest in the target area. Based on this study, maps of risk and vulnerability to extreme events (such as droughts and floods) of the 10

cantons of the project were developed. In addition, training processes were carried out with ASADAS administrators so they could access, interpret and use the meteorological information available on the IMN´s webpage (additionally, it has been articulated with the PRIAS-CENAT, so that they share information and hydrometeorological alerts in time real with ASADAS in the target area). All of the above, with the purpose of using data as part of decision-making regarding technical and administrative procedures.

Output 1.1.2 – Water catchment (well, spring, and/or rain), storage, and distribution systems in rural areas improved and resilient to climate change.

Rated: Satisfactory

As part of this output, the Project planned for a total of 305 ASADAS to have water catchment, storage, and distribution systems resilient to climate change, as well as for ASADAS and end users in these same topics. However, and as reported in the 2019 PIR (page 4) there was a reduction in the number of ASADAS, mainly due to an in-site confirmation of the actual number of existing ASADAS in the targeted areas, and because of different integration processes carried out by some small ASADAS.

As mentioned before, the project incorporated a robust component of strengthening and improving infrastructure of ASADAS in general; during the TE, the evaluation team corroborated that a large portion of the investments made, were focused on actions related to this component. Among the different strategies on this regard, the Project supported ASADAS through the provision of equipment for the expansion and replacement of pipes in the communities, the installation of polyethylene water-storage tanks (more resilient to the climate effects), improvement and protection of water catchments infrastructure (roofs, protection fences, among others), drilling of wells, building of artisanal chlorinators, security cabinets for power stations, financing technical studies for the diagnosis of the current state of the aqueducts and valuation of new investments that the ASADAS would need to undertake to guarantee water availability for the next 20 years, among others. In general, the project supported the improvement of (resilient) infrastructure based on long-term planning and taking into consideration the need to increase the capacity to adapt to climate change effects.

The assessment of this output is satisfactory because the original target was that, at the end of the project, all the ASADAS in the Project would score higher than 60% in the rating of its infrastructure. According to information provided by the team, as of closure of the Project, there were still 14.9% of ASADAS with poor infrastructure. Nevertheless, it is worth highlighting that the conditions of the water supply systems of more than 50% of the associations are evaluated as “Good”. The information and evolution of this indicator over time is presented below.

Table 14. Condition of the water supply system

Condition	Index Score	BL ProDoc	2019	2020	2021
Poor	<60%	50%	24.1%	16.3%	11.2%
Needs improvement	60<x<85	40%	39.4%	34.0%	36.5%
Good	>85%	10%	36.5%	49.8%	52.3%

Source: Own elaboration based on project information

Even though the information above shows the progress made related to the infrastructure of the ASADAS, it is important noticing that, at the design of the objectives, the goal set that no ASADAS would have infrastructure in poor conditions by the end of the Project. Such goal exceeds the capacity of any Project of this nature, since the investment needs of the ASADAS are larger than the investment capacity of the Project, as well as the timeframe, financial and technical assistance needed to achieve this. Yet, the contribution made by the Project to the ASADAS intervened is very significant.

Two important observations related to this output should be highlighted: 1) the project followed a methodology that transcended a simple “donation” approach. The project provided with technical support ASADAS for the installation, use, operation, maintenance or other related activities corresponds according to the elements intervened, including participation in training sessions and the preparation of guides and tutorials. This means that investments were made in ASADAS that were also willing to co-invest or seek local partners to finance activities related to their needs. In some cases,

work was carried out along with the PRONAE financed the necessary labor for the interventions while the project provided the materials, this situation highlights. 2) The ability of the Project to articulate between different stakeholders for the benefit of the communities and the generation of technical capacities and, to some extent, the generation of sources of employment, which, though temporary, boost services at the local level. This strategy also raises awareness within the community on the complexity of water resources management and the need to invest strategically in its protection.

Regarding water storage by the ASADAS, major improvements occurred compared to the beginning of the Project. Even though the ProDoc originally established the goal of at least 5 days of water storage all associations, this indicator was adjusted to eight hours, to comply with national legislation and to make it feasible to the reality of the ASADAS. The table below shows the progress since the MTR, regarding this indicator.

Table 15. Water storage capacity

Storage capacity in hours	BL	2019	2020	2021	Target
0 hrs	5.3%	3.4%	2.0%	0.5%	0%
0 to 2 hrs	4.4%	7.3%	9.0%	2.5%	0%
2 to 4 hrs	10.6%	3.9%	1.0%	6.1%	0%
4 to 8 hrs	22.5%	18.0%	20.4%	17.2%	0%
8 to 14 hrs	15.9%	35.4%	38.3%	39.4%	76%
>14 hours	23.8%	25.2%	24.9%	32.8%	24%
Sin Info	17.6%	6.8%	4.5%	1.5.%	0%

Source: Own elaboration based on project information

Regarding investments made within this output, the project donated 103 water storage tanks, more than 40 km of pipes, and 300 nanometers (training to ASADAS personnel for the use of the nanometers was provided), among other actions.

The significant reduction of ASADAS that did not have information on water storage capacity and the improvement reflected in the fact that 72.2% of the associations have storage capacity for water resources of 8 hours or more are worth noticing, specially taking into consideration that back in 2015, only 36.6% met this parameter. Moreover, out of the 55 ASADAS that do not meet this indicator, 11 of them would require water storage capacity larger than 100m3, which exceeds the Project's capacities. Thus, and as mentioned on the indicator related to the conditions of the infrastructure, the goal stated at the design was not realistic, taking into consideration the baseline situation and the scope of the project.

Lastly, the Project implemented workshops for around 30 topics during almost a 100 activities (97 workshops) with participation of 5554 people on the topic of improving the water catchment, storage, chlorination and distribution systems in the different communities where held.

Output 1.1.3 – Water-saving devices installed in homes.

Rated: Moderately Satisfactory

This output required installation of 4,000 water saving devices such as high efficient toilets, toilet-tank displacement device/toilet dam, and low-flow faucet aerators and showerheads. It also contemplated water conservation awareness (WCA) campaigns designed and implemented.

Regarding the installation of the water saving devices, the project design did not consider the reality of the people in the target areas where, even when the cost of the devices was intended to be subsidized by the project, the Installation cost were to be done by the households. In the target cantons, most of them with low human development indexes and a high incidence of poverty among their inhabitants, proposing this type of strategy may not be the best approach.

If the evaluation team was to take this output literally, the assessment would be evaluated as unsatisfactory. However, it is considered that a proxy for promoting water saving measures was providing ASADAS with more than twice the number of micrometers originally established. This activity, which has a "financial incentive" effect, has an immediate impact on water saving practices.

Furthermore, the project fostered actions related to environmental education and awareness campaigns. In this regard, the project trained more than 5,500 people in different topics related to the need to protect water sources and the proper use of the water resource against the threats of climate change. Likewise, the Project carried out different campaigns on social networks and mass media that reached a population that transcends the goals set for the Project.

Specific actions stands out, such as the research of the use of water in the Project areas (along with IDESPO-UNA), in order to identify the appropriate contents of a campaign for promoting rational use of water. Further than promoting traditional water saving campaigns, due to recommendation given by the RTA, the Project promoted the participation and commitment of the community regarding the protection of the water resources by incorporating concepts related to climate change adaptation measures. Some of these examples are the Campaign "Actuemos por el agua", which included a theme song by Malpaís, a highly regarded national band, and the "Sumá tu Gotita"campaign, that reached people at a national and even international level.

The Project also supported the organization and development of the V Latin American Sanitation Conference (LATINOSAN San José, 2019), providing specialized technical support for the production of materials and methodologies, sponsoring travel expenses for international specialists and also people from ASADAS to attend the event. This conference included a technical session on sludge management, lectures on ecosystem services for water security, and the organization of a specialized forum on the design, construction and operation of UASB reactors for urban wastewater treatment. In annex 11 contains the list of all the audiovisual materials produced by the project.

Output 1.1.4 – Pilot sanitation and purification measures (e.g., sludge management and dry-composting toilets) and other adaptive technologies for wastewater management to improve water quality.

Rated: Moderately Unsatisfactory

The project planned for the installation of 150 composting toilets, 160 improved septic tanks to improve sludge management, as well as an education and awareness campaign to adopt measures to improve water quality.

So as with the previous output, the design did not take into account the reality of the country and the target areas intervened when setting these goals. Costa Rica, for multiple reasons related to health issues, has encouraged the elimination of latrines (although dry pit or improved latrines are offered as alternatives to the traditional latrine, their use is not scalable (family or communal solutions), in other words, it is not worth piloting this strategies). Regarding septic tanks, although the project did not work directly with this infrastructure, it is noticeable that, during the preparation of the Geospatial Rally, one of the participants developed an app to monitor septic tanks that could contaminate water sources in her community.

As an alternative, the Project carried out key actions as an adaptive measure for this output:

- An Eco-sanitation project executed with the Unión de Acueductos Norte Norte and the "Ruta Los Maleku" Biological Corridor: consisting on the construction of artificial wetlands (bio-gardens) for the treatment of gray waters in order to improve the quality of the discharged water. They built two demonstration bio-gardens in two public schools (Escuela San Francisco de Los Chiles and Escuela Chimurria de Upala), as a pilot that can be scaled
- A training course was developed on sanitation technologies, in collaboration with the CONARE Sub commission on Water and Sanitation (participation of UTN, UNA, UCR and TEC), 40 ASADAS participated.
- The ASADA of San Rafael de Guatuso, in coordination with other partners sough financial alternatives for the San Rafael de Guatuso District Environmental Sanitation project.

Even though this output focused in sewage water, it should be noted that with the objective to improving the quality of drinking water, the project carried out a workshop where the participants learned to create artisanal chlorinators (in fact,

the assistants had a practical-theoretical timeslot to develop their own chlorinator within the workshop). Moreover, this workshop was documented and audiovisual and technical material was prepared and distributed to ASADAS with the purpose that, in the future and according to the associations 'needs, more chlorinators can be made and utilized. More than 70 ASADAS participated in these workshops and assembled their own chlorinator. Furthermore, during the field mission, it was found that all ASADAS were properly chlorinating water, using either the artisanal chlorinator, or a commercial one.

Finally, and as mentioned in the previous output, the project has managed to train more than 5,500 people and has developed campaigns that, through different strategies, have managed to reach a large part of the population at the national and even international level. It is worth noticing the work carried out by the team on communication of the Project, which took into account the reality of the target audience and the best way to reach it. A significant amount of high quality audiovisual materials were generated (see annex 11).

Output 1.1.5 – Water sources and associated aquifer recharge areas protected and/or rehabilitated through reforestation, natural regeneration, and other protection and conservation measures.

Rated: Highly Satisfactory

This output contemplated the intervention of 275 ha of water sources and associated aquifer recharge areas protected and/or rehabilitated.

Regarding this output, the project achieved important progress reflected in the fact that 62% of the ASADAS carried out aquifer protection activities, such us:

1) Carrying out hydrogeological studies for 41 water sources in the TNN that will serve as the basis for the creation of water source conservation plans. In this regard, the methodology embodied in the "Guide to develop and implement model plans for the protection of water sources and recharge areas for community operators", developed by SICA, was validated, adding elements of ecosystem quality monitoring, through piloting in 5 ASADAS participating in the TPRH implementation process.
2) The mentioned studies were used for the future acquisition of 342.3 ha for the protection of water sources of 5 ASADAS. Through the Project 7,565 native trees (and 1,300 more pending due to pandemic reasons) were planted in 6.8 ha in the North-North region. It should be noted that these trees come from the nurseries of the CTPs of Upala and Guatuso, supported by the project, since it seeks reforestation with native species that are resilient to climate change in the area and articulate efforts with the Municipalities, not only in Upala, but in nearby cantons. Support to CTPs was provided by 1)the acquisition of trees, planting and maintenance for 12 months; 2) the acquisition of tools and supplies; 3) generation of long-term work and financing agreements through cooperation treaties between the municipality-CTP in Upala (already signed and active) and between the ASADA of San Rafael de Guatuso (pending approval).
3) In the Chorotega area, and with the help of the Communal Water League, 21,961 trees were planted on 35.1 ha during 2020 and 2021.
4) During 2021, in collaboration with ICE and the Communal Water League, planting of more than 12,000 trees of 31 different native species in 20 ha that will impact 30 ASADAS, is being coordinated. This process began in March 2021 and will finish by June 2021, before the closing of the Project.
5) Studies of stable isotopes in 85 water sources of 40 ASADAS. This is a technology under applied in the country, used to determine the optimal height for water recharge, providing information on the sites of hydric interest that must be protected.
6) As part of the Geospatial Rally, a mobile app to control and monitor reforested areas was created, and 300 trees of more than 20 different species have been registered as to date.
7) A guide developed for identifying species, whose ecosystem services and resistance to CC make them more suitable for recovery processes of vegetation cover. This involved the participation of 35 experimenters from the Chorotega region and the TNN (including ASADAS personnel), as well as renowned academics, which together generated a database of 454 species. An identification guide and the design of an app for

recommending plants to be used for the regeneration of vegetation cover by ASADAS and other key stakeholders was incorporated.

Finally, the project has also implemented a technological tool that allows identifying agricultural plantations with an elevated use of agrochemicals close to water sources, which can directly affect the quality of water for human consumption. This tool has been worked mainly in the North-North Territory, where the largest number of such plantations (mainly pineapple) are located. Nonetheless, it can be used anywhere in the country, since it is articulated with the analysis process developed by the National Laboratory of Waters of AyA.

Outcome 1.2 – The capacity of ASADAS' end users to mainstream climate change adaptation into their livelihoods systems is strengthened.

Budget:
Co-Financing: $1,043,100
SCCF project grant requested: $182,420
Rated: Highly Satisfactory

This outcome incorporated only one output:

Output 1.2.1 – Community-based climate change training program with a gender focus and includes minority groups, such as indigenous communities

Rated: Highly Satisfactory

This output expected the creation of a training toolkit on good practices for water-conscious consumer behavior and biodiversity monitoring, as well as the training of at least 1,500 people including women (with participation of at least 35% of the total) and indigenous people, to maintain and improve the use of water and sanitation in the current environmental context.

The Project stands out for the creation of tools for the holistic improvement of water resource management, from water catchment, to the administration of the ASADAS. Furthermore, the Project not created technical tools (and incorporated national regulations that ASADAS must comply with in said tools) but also worked on the creation of materials so that they could continue to be used once the it ends, and can also be used by associations throughout the country. Among the tools developed, the following stand out:

- Improvement and Efficiency Plans (PME).
- Guide for managing unaccounted-for water (ANC).
- Logbooks and methodologies to support the implementation of the Water Quality Operational Control program.
- Logbook for the preventive maintenance plan of communal aqueducts
- Water Balance Calculator.
- Tariff calculator according to current ARESEP specifications.
- Quick guide for the installation of micro meters for ASADAS.
- Quick guide to horizontal directional drilling using HDPE pipe.
- Siembrapp (app with information on which species to plant according to location)
- APPlaguicidasCR[11] (app with information on agrochemicals used in plantations that may affect water for human consumption)
- PRIORIZA[12] (provides information on possible threats to water sources due to the proximity of pineapple crops)
- Quick guide to pressure measurement and monitoring in distribution networks.
- Quick guide for the installation of high-density polyethylene tanks - HDPE.
- Quick guide for the disinfection system and construction of artisanal chlorinators.
- Information Sheet for Horizontal Directional Drilling to Install High-Density Polyethylene (HDPE) Pipe.
- High resolution, Climate risk maps of 16 cantons.

[11] https://drive.google.com/drive/folders/16wcv3BT9qySOvN1xCSUa08RW6j10qtL2?usp=sharing
[12] https://aya-lna.shinyapps.io/fuentes-cultivos/

- Disaster risk mapping, related to ASADAS.
- Protocol for the integration or merger of ASADAS.
- Tool for Comprehensive Risk Management in ASADAS (GIRA).
- Climate risk plans with a gender and social inclusion perspective for the 10 cantons of the Project.
- User guide for local stakeholders such as municipalities and ASADAS, to exploit climate risk maps.
- Risk description of extreme hydrometeorological events in the North of Costa Rica.
- Technical Note on upflow anaerobic sludge blanket digestion (UASB).
- Guide of species of interest in the regeneration of vegetation cover.

Regarding the component of training, at the time of the TE, a total of 5,554 people had been trained, 1,839 were women (33.1%), 2,066 were men (37.2%) and 1,649 (29.6%) were children.

It should also be noted that, during the project, the call for training on technical issues was used to raise awareness among the attendees on gender issues. Likewise, the methodology followed during many of the workshops was "training of trainers", in such a way that the capacities were installed in the ASADAS themselves so that the knowledge could be transferred to other people in the communities or other ASADAS within the areas of intervention.

Outcome 1.3 – Hydrometeorological information integrated into land use and production practices, and planning processes to increase resilience of rural communities to address water variability.

Budget:
Co-Financing: $7,419,329
SCCF project grant requested: $1,297,880
Rated: Highly Satisfactory

The scope of this outcome is proposed through five different outputs related to the installation and operation of 15 meteorological stations in the target area, the development of vulnerability indexes and adaptive capacity indexes, 1 monitoring system on adaptation-based measures and the ASADAS management system (SAGA) as well as climate early warning systems.

Output 1.3.1 – Fifteen (15) new Automated Weather Stations (AWS) and Automated Flow Stations (AFS) installed to provide consistent and reliable environmental data in real time in the selected northern SEMUs.

Rated: Highly Satisfactory

A total of 10 meteorological stations and 5 hydrological stations were installed in the target area, which have been integrated into the respective information systems at the national level (IMN, CNE and AyA). This allows ti use the data gathered not only by the ASADAS of the cantons in which they are located, but also by public institutions, for decision-making related to climate and risk management the country level.

The project also provided training for the ASADAS´ managers to access, interpret and analyze the information generated by these mechanisms, in such a way that they can use the information in making appropriate decisions in the management of the associations.

Output 1.3.2 – Vulnerability Index, Adaptive Capacity Index developed and supporting the climate early warning and information system, and the Risk Management Plan for Potable Water and Sanitation (RMPPWS).

Rated: Highly Satisfactory

This output includes the creation of drought and flood risk maps for the 10 cantons of the Project, a guide to use the climate risk maps and a "Description of risks in the event of extreme hydrometeorological events in the North of Costa Rica".

Based on the Project activities, an identification of natural and anthropic threats was developed for all the micro-watersheds in the target area. This intent that, through GIRA, ASADAS can assess the level of risk to which they are exposed to, based on their location. The ASADAS can use this information since 2019, through the GIRA system (developed by the Project and based on the information requirements that the ASADAS must generate, significantly facilitating their application and use).

Regarding the vulnerability indexes for the SEMUs, they existed before the start of the project, elaborated by the IMN. Additionally, this information has been used both for the preparation of the risk maps and for the risk management plans for drinking water and sanitation that have been developed through the project.

Nonetheless, by the end of 2020 only 28% of the ASADAS had implemented the Comprehensive Risk Management Plan for ASADAS (GIRA). The goal set in the ProDoc was of 50%. The PIR indicator set a goal of 40 RMPPWS, and, as established in the 2019 PIR (page 26), by the application of GIRA, this indicator would be attained, as agreed by AYA and the other institutions involved. As of to date, GIRA has been implemented in more than 50 ASADAS. In addition, training in the use of the tool took place with participation of more than 250 people. The project implemented training sessions for institutional partners, academia and NGOs in order to promote its use at the national level with the participation of more than 110 people.

Most ASADAS do not have the technical capabilities to develop a comprehensive risk analysis by themselves. However, GIRA is quite a predictable and user-friendly tool. The project hired a consultant to accelerate the implementation of GIRA, but the ASADAS can apply it themselves due to a previous basic training. Several organizations (UTN, LCA, AyA) have supported its implementation in ASADAS, both in the target area and in other parts of the country. It should be noted that this and other tools developed by the project are part of the operations carried out on a daily basis by the ORAC and AyA itself, beyond the ASADAS intervened by the Project.

Output 1.3.3 – Information monitoring system for the AyA and ASADAS Management System (SAGA) to track the impact of the adaptation measures aiming to reduce the vulnerability of rural communities to address water variability due to climate change, and articulated to national-level information systems (National System of Water Resources and Hydrometeorological National System).

Rated: Highly Satisfactory

The ASADAS Administration and Management System (SAGA) includes information to track the impact of adaptation-based measures to address water variability due to climate change. The project trained both managers of the associations in the target area, as well as at the national level in the use of the system.

In the formulation phase, the Project applied the “Formulario Único” to all the ASADAS to be intervened by the Project. This document compiles detailed information on the status of the ASADAS and provides the information that needs to be include in SAGA. During the Project, SAGA has become the reference system on the situation of the ASADAS, and the AYA leads the training process for its personnel now.

The Project created a large number of layers of geographic information that will enrich the SAGA geospatial viewer, which means an evolution from paper archives, to digital information. The project provided the ORACs technical support/training for the use of the geospatial information generated, in order for them to create a geo-package of data and its management through Geographic Information Systems.

Another valuable resource generated by the Project is the Prioriza system. This system allows the information from SAGA to be automatically crossed with the MOCUPP information, to generate proximity alarms between water sources and pineapple plantations. Moreover, this system allows the LNA to include the tests they made related to the presence of pesticides in the water and identified those tests that had positive results.

Output 1.3.4 - Early Warning and Climate Information System (CEWS) on climate-related risks and vulnerability of water resources in the project area generated and disseminated to ASADAS, users and partners.

Rated: Satisfactory

This output contains several activities, including the development of ToR for the creation of CEWS in the target area, the revision of risk maps, inter-institutional arrangements for forecasting droughts and floods and their respective response measures, the identification of the requirements for drought and flood contingency plans, design of a website where all this information can be accessed, design and implementation of a CEWS, training in early warning systems for the community and preparation for the implementation of response plans to weather events with the participation of ASADAS, at the municipal level.

As results and concrete actions, the project achieved:
- Technical assistance to AyA for the development of procedures to guide the assistance provided by the ORACs to ASADAS affected by disasters and emergencies. Through this, a process of articulation between AyA and CNE started, generating a proposal for integration in the Coordination Instances of the National Risk Management System (SNGR) of the Regional Offices of Communal Aqueducts, the FLUs and ASADAS.
-Provision of technical assistance for the development of a model of reciprocal assistance between ASADAS for the attention of emergencies and disasters under the leadership of the FLUs. For which mechanisms and work structures were created in the Communal Water League and the Northern Aqueduct Union North, and has allowed the articulation of efforts and resource management in the face of Hurricanes Eta and Iota.

Furthermore, and regarding this output, the early warning system (CEWS) developed for Upala should be noticed; this CEWS is composed by 4 components: 1. Knowledge of risk, being its main element the update map of the hazards and topographic survey created after Hurricane Otto (UCR-CNE). 2. Monitoring and definition of alerts based on the knowledge of risks (includes the installation of instruments and surveillance mechanisms such as the one mentioned). 3. Dissemination and communication of alerts and actions. 4. Local response capacity (preparation of communities) to act on alerts. This scheme defined by the project and based on OMM standards is being replicated by the IMN in the development of a CEWS in Nosara, supported by the project in its formulation phase. Moreover, an alert system was installed for the 5 communities most exposed to sudden events (floods, avalanches) due to hydro meteorological events in Upala.

This system alert bases on a monitoring system based in the water level of the Zapote River in Canalete. If the river level rises to a certain level in Canalete, floods can be expected in the central town of Upala; if this situation materializes, an alarm is activated in Upala so that the population can prepare. The implementation of this early warning system occurred in coordination with the CNE, IMN, AyA, UCR, Red Cross, World Vision, and the Municipality of Upala, and had the cooperation of the National Consortium of Electrification Companies of Costa Rica (Coneléctricas).

Additionally, work has been done regarding active participation of ASADAS in the local emergency plans of their respective communities; and as part of the project, 5 Community Emergency Committees were formed in the areas most affected by Hurricane Otto and they developed their respective emergency plans through a participatory construction processes. This is probably due to the impact that Hurricane Otto had on the area and the vulnerability faced. The revision of the risk maps and the incorporation of the risk factors of drought and flood existed before the project, as explained in the results of the previous output. Despite of the fact that the case of the canton of Upala classifies as highly successful, the project was unable to replicate its results in the other cantons in the target area, with the exception of the community of Nosara.

The Risk Management Plans (PMR) is also part of the systems that allow the identification of threats, namely, permanent contamination of sources (due to agro industrial issues), which, although not climatic, can stress the reduction in water availability and the pressure of the communities for drinking water.

Outcome 2.1 – Ecosystem-based climate change adaptation measures are integrated into public and private sector policies, strategies, and investments related to rural community water-sourcing infrastructure and services.

Budget:
Co-Financing: $5,363,000
SCCF project grant requested: $1,174,300
Rated: Moderately Satisfactory

This outcome incorporated four different outputs that include: the implementation of four RMPPWS in the cantons affected by the project, AyA and CNE investments in the target area to integrate CC risks, the participation of 10 agricultural sector companies in a system of voluntary payment for the protection of water resources, and valuation modeling of ecosystem-based adaptation measures and economic valuation of ecosystem services.

Output 2.1.1 – Four (4) participatory RMPPWS implemented within each target canton (SEMU 1: Guatuso, Upala, Los Chiles, and La Cruz; SEMU 2: Liberia and Cañas; SEMU 3: Santa Cruz, Nicoya, Hojancha and Carrillo).

Rated: Highly Satisfactory

After negotiations with AyA and adjustments to the tool, risk management plans are part of GIRA, which include all the necessary components of an RMPPWS. Taking the above into consideration, the fact that at the end of the project 46 ASADAS in all the cantons of the targeted areas have implemented GIRA for risk management in their ASADAS, demonstrates a highly satisfactory achievement of the goal.

It is worth noticing that GIRA allows ASADAS to fulfill with a series of requirements from different institutions, at the time that it also allows them to understand and manage different risks (administrative, operative, sanitary, etc.). GIRA covers the requirements for several institutions:

- ✓ National Emergency Commission
- ✓ Ministry of healt
- ✓ ARESEP
- ✓ National Water Laboratory

Furthermore, the tool was taken over by AyA (at the central level and by the ORACs) and is being implemented in ASADAS in other areas of the country. Noticeable, the Board of Directors of the CNE has established "the incorporation of methodologies developed by the UNDP and the Costa Rican Institute of Aqueducts and Sewers for the Comprehensive Risk Management in ASADAS (GIRA) in rural water supply systems" as a requirement to finance the improvement of aqueducts in an emergency decree for the south of the country in the context of the COVID-19 pandemic. In addition, it incorporates the risks of contamination of sources by agrochemicals from agricultural productions in the area and works hand in hand with the LNA for the early attention of contamination situations. This is a very important added value at the country level for the analysis of water quality, but above all, to understand the way in which the use (and abuse) of agrochemicals affects water sources and its possible impact on human health.

Output 2.1.2 – AyA and the National Emergency Commission (CNE) investments for the targeted area integrate climate change risks.

Rated: Highly Satisfactory

This product contemplated that at least one investment from each of the aforementioned institutions would take into consideration issues of risk management due to climate change, goal that was achieved since year 1 of the Project. By the end of the project, a total of 97 investments in this regard had been made (65 of the AyA and 32 of the CNE). Some of which stands out:

AyA:

- 6 Hydrogeologycal studies
- Drilling of 13 wells
- Interventions for the attention of Hurrican Otto
- Interventions for the attention of Hurrican Nate
- CONIMBOCO Project

CNE:

- 32 Hydrogeologycal studies

Output 2.1.3 – Ten (10) livestock and agricultural producing companies adopt a voluntary fee system (Certified Agricultural Products and Voluntary Watershed Payments) to pay for the protection of water resources.

Rated: Unsatisfactory

The design of this indicator did not take into consideration the reality of the country in terms of the involvement of the productive sector related to the investment policies and initiatives to protect the environment, and the need to create financial incentives to accompany these efforts. Although part of the team considers that a more proactive approach could have been made since the beginning of the Project, the Coordinator decided to prioritize other outputs with greater impact on the overall objective of the project.

Because of the aforementioned, the team decided to implement a different strategy: participation and support in the design of the Water Resource Protection Tariff (TPRH) in conjunction with other stakeholders such as CEDARENA, GIZ, Fundecooperación, ARESEP, and AYA, among others. The TPRH is a mechanism that allows the entities that manage water resources to adjust their tariff in order to develop projects that allow activities such as reforestation in water resource catchment areas, purchase of land, hydrological studies and even environmental education programs within a 5 years framework. Additionally, through the Huella del Futuro Program, funds were collected for planting of 200 trees, including conventional production systems and agropastoril systems.

Even when at the end of the project 22 ASADAS (5 of them impacted by the Project and located in the TNN) were in the process of approval by ARESEP, no other entity apart from AyA and the Heredia Public Services Company achieved approval of the TPRH yet. The foregoing is due to the complexity and bureaucracy involved in the process to access this tariff. Furthermore, the LCA just began the process to provide support services in the implementation of the TPRH for its affiliates.

According to the discussions with different entities involved in the Project, is clear that the system requires a series of information and calculations that go beyond the capacities that the associations usually count with. Therefore, the Project along with other partners, implemented a manual, and an app that will allow ASADAS administrators to include only information that they already have, in order to submit the application for the TPRH to ARESEP in a simple way, is under development. Finally, it should be noted that the project started a committee formed by the ORAC and the ASADAS of TNN at the local level. At national level, another committee formed by AyA and ARESEP authorities will use the TNN experience, as well as the experience of other ASADAS supported by relevant stakeholders, in order to develop of a roadmap that allows ASADAS to have guidance and support in each part of the process by AyA and ARESEP technicians.

Output 2.1.4 – Valuation modeling of ecosystem-based adaptation measures and economic valuation of ecosystem services support the integration of water-related risks and new ecosystems management practices within productive sectors (agriculture and livestock industries).

Rated: Unsatisfactory

This output included expected as deliverables ecosystem services maps and values of biodiversity and ecosystem services available to support decision-making to implement ecosystem-based adaptation measures in the three target SEMUs, as well as AyA and ASADAS technician staff trained in spatial modeling (economic and ecosystem valuation modeling) and valuation of biodiversity and ecosystem services.

According to the Project team, this activity was not carried out because other more pressing activities that generated a greater impact on the main objective of the project had to be prioritized.

Outcome 2.2 – The purchasing and credit policies of at least 20 agricultural and livestock trading companies and five (5) financial institutions operating in the target region promote adoption of productive practices that help maintain ecosystem resilience to climate change.

Budget:
Co-Financing: $1,487,000
SCCF project grant requested $325,700
Rated: Moderately unsatisfactory

This outcome includes the execution of two products: 1) the adoption of purchasing and credit policies of at least 20 companies that adopt resilient productive measures against CC; and 2) an information system that allows the dissemination of the information and tools created during the project.

The project managed to create a variety of tools and policies (for example, the gender policy for AyA) adopted by ASADAS across the country. Nevertheless, the design of the outcome was very ambitious in relation to the amount of work involved, not only the execution of the Project as a whole, but mainly in the participation of the private sector in initiatives related to the protection of the environment.

Output 2.2.1 – Farmers incorporate ecosystem-based climate change adaptation measures into their production processes, making use of revised purchasing and credit policies of agricultural and livestock trading companies and financial institutions.

Rated: Unsatisfactory

As with other outputs proposed in the ProDoc, the design and the goals expected were not realistic, mainly due to the level of work that implied and the participation of private sector in initiatives to protect the environment. The Project did not achieved the proposed objective of at least 20 purchase and credit policies, as well as 10 initiatives related to CC.

Nonetheless, and similar to other outputs, the team joined efforts with other initiatives and managed to create a proxy for the proposed objective. The Project collaborated with Fundecooperación to support the implementation of the Tu-MoDeLo program in the Huetar Norte region. This project seeks to link producers who are willing to adopt ecosystem-based measures to adapt to climate change and to protect water sources, with business in the gastronomic and tourism sector in the area, so that the latter buy products “with purpose” (preferential purchases from those who produce responsibly).This project runs successfully in the Chorotega zone and it is expected that during the next year it will link at least 100 producers in the TNN.

Regarding financial institutions, there is progress made in negotiations with Banco Popular. The bank included ASADAS in the category of "social economy business" in order to make it possible for them to give loans to the through the guarantee fund for MIDEPYMES. It also extends credits for non-traditional activities, such as management plans, protection of water sources (because ASADAS already have access to loans for traditional activities such as infrastructure, purchase of vehicles and materials, among others). This achievement is extremely relevant, since a large number of ASADAS do not own real guarantees such as land, which creates a barrier for accessing loans. Furthermore, because of its regulations, ASADAS can generate income only through water consumption tariffs (hence the support from the Project to the TPRH).

Output 2.2.2 – Knowledge management system allows disseminating data, information, and toolkits to foster and mainstream ecosystem-based adaptation practices in other water-intensive productive sectors across the country.

Rated: Highly Satisfactory

As mentioned and highlighted during the evaluation, one of the main strengths that the project leaves for the ASADAS is the creation of valuable tools and information for the management of water resources in general.

All this information and tools is used by AyA not only in the targeted areas, but also at the national level. Furthermore, this dissemination effect overpassed the institution and reaches other organizations. For example, AyA´s gender policy created with the support and within the framework of the Project, represents a base for the creation of the gender policy of the Judicial Power, which shows that the information generated during the Project, of different types, integrates in diverse areas.

Relevance: the Project is rated as: Relevant (6/6)

After conducting the TE examination, it was confirmed that the project is highly relevant. The results achieved and the alignment with national policies on the matter exceed expectations. In general, the Project is not only aligned with the country's macro plans (the 2018-2022 National Development Plan and the previous 2014-2018), but became one of the main projects that the government (MINAE) reports on to the national goals established at a country level for adaptation to climate change, among other significant contributions to community water management already addressed.

This also implies alignment with the National Adaptation Policy and contributes to two specific goals: actions by community-based organizations (ASADAS) around CC adaptation, and to the number of hectares managed under ecosystem-based adaptation schemes. The Project (also as one of the recommendations identified and reinforced in the MTR) is part of SINAMEC (National System of Climate Change Metrics) and according to key informants, it contributes to the nodes of adaptation, mitigation and sustainable development (financing is the fourth node in the metrics system). The work performed regarding development of resilient infrastructure and advocacy in the field is described as pioneering in the country. In addition to aligning to this Policy, the technical team, based on the experience and lessons generated by the project, supported with technical recommendations the start of the process to finalize the National Adaptation Plan (which UNEP is supporting in coordination with MINAE and the DCC).

As mentioned in previous sections, the project aligns with the ASADAS Strengthening Law. AyA recently formulated a pilot plan (in December 2020) to enhance the integration process of ASADAS and thus strengthen its management capacity. The contributions of the Project have been important in the articulation of this initiative at the national level.

In general terms, and from its design, the Project aligns and contributes with other national commitments: such as the United Nations Framework Convention on Climate Change (UNFCCC), the Climate Change Strategy (2009-2021), the Action Plan of the National Climate Change Strategy (ENCC), the National Risk Management Policy (2016-2030) and the National Program for the Supply of Drinking Water for the Population. The Project has contributed to the country, with the implementation of the National Drinking Water Policy of Costa Rica 2017-2030, the Policy for the Organization and Strengthening of Community Management of Drinking Water and Sanitation Services and the Institutional Strategic Plan 2016- 2020 of AyA. In addition, it is highly relevant for the AYA within the initiative of the Integrated Water Supply Plan for Guanacaste (PIAAG).

The Project fits within the results of the UNDP (UNDAF, UNDP Strategic Plan, Country Program and Country Program Action Plan) and other GEF Projects of the National Office. As stated in this report, the Project has articulated actions and developed strategies with other cooperation projects/agencies at the national level, and the contribution it has made to strengthening and adaptation to climate change of ASADAS is noticeable. Stakeholders from AyA, ORACs, other NGOs, academia, and particularly the women and men involved in water resource management at the community level (ASADAS) value the support of UNDP as very positively.

Finally, and with the aim of highlighting the relevance of the project, it is worth mentioning some of the awards that the Project received. In the celebration of the Global Week of Action for the SDGs (2019), led by the Government of the Republic, the Ombudsman's Office, Civil Society Organizations, the private sector, the Judicial Power, local governments, and the United Nations, the AYA was selected as one of the institutions with the greatest contribution to the progress of SDGs in the country, due to the implementation of the Project which was chosen as one of three experiences that successfully promote the SDGs in Costa Rica. For the celebration of United Nations Day (2019), the Project was distinguished by the local management as the star initiative of UNDP Costa Rica, standing out among more than 25 projects that make up the organization's Sustainable Development and Human Development portfolios. UN Costa Rica published a document with information of the “star achievement” of each executing agency, including a life story that reflected the impact of said

projects. This material was shared with national and international authorities as evidence of the results achieved by UN in the country.

Related to the assessment of the project from ASADAS´ members, comments such as: "We do not know what we would have done without the support of UNDP" highlight the "great support and drive" that the project provided to the ASADAS, and were repeated constantly during field mission. Some of the respondents indicated that, before the start of the project, they were "in a state of lethargy, but the project came to wake us up and drive us forward." Additionally and equally important, the project helped the communities to understand the impact of CC on the availability of water resources because. Informants mentioned that "in the past, it was believed that we will never run out of water… instead of reforesting, trees were felled and people did not believe in the effects of climate change". Nowadays, most of the people interviewed demonstrated a fair knowledge not only of technical terms related to CC, but essentially (and most importantly) awareness about climate change and the importance of adopting adaptive measures for the preservation of water resources.

Effectiveness: the Project rated as Satisfactory (5/6)

Regarding the achievement of the objectives expected for the Project, the assessment is satisfactory. If a general analysis as to the achievement of the general objective was to be done, this rating would be the highest possible (highly satisfactory). However, a more specific examination of the relationship between the outcomes (and specifically the indicators) established at the ProDoc and the results achieved, reveals some gaps that need to be addressed. These gaps respond to issues regarding the design of the Results Framework (rather than the execution of the Project), and due to the fact that adjustments on were not performed at early stages of the Project, due to the reasons previously discussed in the "Project results and impact" section of the TE report.

Nonetheless, the Project stands out in aspects related to infrastructure, management, training, technical support, technical studies carried out, and development of capacities, as well as the implementation of more complex activities related to ecosystem-based adaptation matters. Regarding the limitations that the Project faced in outcomes that involved private sector and households, the Project sought for proxies that proved to be valuable, as discussed in previous sections.

Regarding specific topics such as gender issues, the Project promoted different processes needed to break gender barriers and to advance towards gender equity in the water resources management sector at the national level. The project carried out concrete actions to recognize the role of women in the sector, and to increase their participation both in activities and opportunities (for example training), as well as empowered participation in decision-making processes for them.

Efficiency: the Project rated as Satisfactory (5/6)

The financial analysis performed, in terms of quantity and quality of the actions implemented by the project is satisfactory. Even though the budget established at ProDoc was modified during the execution of the Project, those changes did have meant a variation in the total amount. The variances in the execution of the budget respond to weaknesses in the design of the original budget that somehow undervalued the cost of infrastructure investments that needed as a starting point for strengthening of ASADAS.

Beyond these variances, the execution of the Project is valued as efficient, and the investments made reflect a strategic use of the resources available in order to achieve the objectives established. Taking into consideration that the project planned to work with 300 ASADAS (at the beginning and prior to the integration and merger processes that some ASADAS went through), and that the total budget of the project is USD $ 5,000,000, the investment per year for each ASADA, on average was $ 3,333. This meant a challenge, considering that the budget included all expenses related to the execution and operation of the project; especially at the light of the reality that ASADAS presented (mainly in terms of infrastructure).

Overall Project Outcome: the Project is rated as Highly Satisfactory (6/6)

Based on the previous assessment, the general results of the Project are satisfactory. The table below summarizes previously discussed ratings.

Table 16. Overall Project Evaluation

Assessment of outcomes	Rating
Relevance	Highly Satisfactory (HS)
Effectiveness	Satisfactory (S)
Efficiency	Satisfactory (S)
Overall Project Outcome Rating	Highly Satisfactory (HS)

Unmistakably, the Project is successful and its results stand out at various levels; it attained a series of relevant aspects in regard with water sources management and, most likely, its results will last in the future. However, and taking into consideration that some outcomes were not achieved, and the targets established for some indicators were not reached, the effectiveness and efficiency are rated as satisfactory. Nonetheless, taking into consideration the scope of the results and the unanticipated accomplishments (which exceed the outcomes that were not met), the overall rating of the project is **Highly Satisfactory**.

In line with the above, it should be noted that, before the Project, ASADAS (nor the AYA) did not have on their agendas a strategy on CC nor adaptation-based measures; and their priorities were related to more tangible needs such as basic infrastructure. This explains why the Project's initial strategy was to start from an "infrastructure-based adaptation" approach (ecosystems, communities and risk management) as a starting point for promoting dialogues on other adaptation measures, where the project managed to achieve great results.

Some factors mad it difficult to adapt more realistically the outcomes and indicators established at ProDoc (as previously discussed). Those limitations relates to the design process, timing and even requirements from GEF itself.

Sustainability

This section reviews the sustainability perspectives in financial, socio-political, institutional and environmental terms.

Financial sustainability: Moderately likely

Financial sustainability is moderately likely. This assessment responds mainly to two considerations. On the one hand, it is necessary to continue investing in infrastructure to ensure provision of drinking water suitable for human consumption at the country level, working on a resilience and adaptation-based approach and investing in infrastructure, technical studies and capacity building for the water resources management.

In the other hand, ASADAS should keep investing at a local level. Even when, due to legislation, the only source of income available for ASADAS is the collecting fees for water consumption, e Project is implementing exit strategies that ASADAS can obtain fresh resources for investing. As mentioned before, joint process with Banco Popular and ARESEP is critical for financial sustainability of ASADAS.

At a national level, the flow of resources (likely from international cooperation and multilateral investments) for adaptation (specially adaptation based in ecosystems) to climate change may continue to expand, and the work already coordinated with other cooperation entities is important and must continue (both for strengthening ASADAS and/or FLU as well as in adaptation-based on ecosystems projects and infrastructure). The efforts from Avina to strengthening of ASADAS through the FLU stands out, as well as projects within UNDP itself such as Biofin, which through actions such as "Huella del Futuro" can continue with reforestation process (based on resilient species that generate ecosystem services) that can be linked to the results of the Project for the sustainability of its actions.

However, it is critical that the process of strengthening ASADAS and especially FLUs such as the Communal Water League continue so that they can provide different services, including linking ASADAS to financial services (loans). Furthermore, it is critical that funds continue to be leveraged and processes for the direct implementation of funds beyond public investments are fostered, as usually said funds end up trapped in bureaucracy and institutions that (in some cases) do not respond to the immediate needs of the sector. In addition, it is proposed to improve strategic alliances to maximize access

and use of public funds available for communal infrastructure (such as funds from FODESAF, INDER, PRONAE, Municipalities, among others).

Socio-political: Moderately Likely (ML)

Although the bureaucracy in the country is complicated, the regulations are complex and the processes and regulations with which the ASADAS must comply for their operation are cumbersome, there is a socio-political framework that encourages the strengthening of the ASADAS (beyond the operational capacity that exists for their support).

A positive signal regarding socio-political aspects in water resources management is the declaration of water as a Human Right. Furthermore, discussions related to climate change, decarbonization and the need of an adaptation-based approach for policies in the country are supported for more and more relevant stakeholders every day.

Due to the Project (at least at the targeted areas), there is more awareness of the need to take into consideration socio-politic dynamics of ASADAS and watershed areas, to be considered when thinking about integration processes. The strengthening and rapprochement process between ASADAS and within structures such as FLUs has been critical, so that support processes and assistance networks (that do not necessarily depend on a central system either at the AyA or ORAC level) are in place.

Institutional framework and governance: Moderately Likely (ML)

One again, at the institutional and regulatory level, the national context is complex. However, a common element (which the project has reinforced) is the need to understand that water resources management and ASADAS are elements within a bigger climate change and adaptation-based framework. It is within this framework that articulation and coordination processes can be facilitated between institutions such as MINAE and AyA, for example, to address the issue of water resources as a relevant element in national initiatives to deal with Climate Change.

At the local level, the bureaucracy faced by ASADAS in their operations is crossed by excessive regulations and requirements that represent an overload of work for them and, usually, overcomes their operating capacity (especially considering plans and actions at long-term). Nonetheless, the Project has provided with technical elements and tools and has help developing capacities so that the management of the associations can be executed more efficiently and with a resilience and adaptation-based perspective. Furthermore, organizations such as the Communal Water League (and FLUs in general) can support the governance of ASADAS to be less burdensome and, on the contrary, facilitate significant strengthening processes and, somehow, conciliate water resource management and the national regulatory framework. Other relevant strategy that could significantly improve the institutional framework and governance reality of ASADAS is the integration pilot plan implemented by AyA, as this would strengthen the administration capabilities of small associations.

Environmental: Moderately Likely (ML)

Environmental sustainability could be considered as one of the greatest challenges of the Project, due to the extreme and more regular climate events due to climate change. However, the Project worked on installing capacities at ASADAS, AyA and other key stakeholders that strengthen their capacity to manage and adapt to climate change. Moreover, the project followed an approach based on resilient infrastructure, adaptation on ecosystem-based actions performed during the Project resulting in ASADAS much more prepared to face these challenges. Furthermore, water resource managers are much more conscious of the need to plan ahead considering elements related to CC and based on an analysis of the environmental conditions of their regions in which they operate.. In the same line, the Project produced a significant number of tools and technical guides so that ASADAS can manage their risks in a more wise and strategic way.

Overall likelihood of sustainability: Moderately Likely (ML)

Based on the elements of analysis and the evidence that the TE has reviewed, the probability of sustainability of the actions and results of the Project is moderately likely. In other words, there are moderate risks for the positive changes achieved to be maintained. Nonetheless, the achievements in infrastructure, capacity building and change in the way people perceiving climate change, are already in place. However, there is are some threats for its sustainability like changes in positions and attrition in the institutions, the uncertainty related to investment at ASADAS level, changes in legislation (that could make it even more difficult for ASADASD to operate), among others. Nevertheless, if a strategy for strengthening FLUs is undertook, so that this organizations can keep on providing services (especially related to financial services), facilitating

coordination with relevant institutions, and fostering integration between ASADAS, the results of the project might even be enhanced.

Table 17. Sustainability Rating Scale

Sustainability	Rating	Scale 1-4
Financial resources	Moderately Likely (ML)	3
Socio-political	Moderately Likely (ML)	3
Institutional framework and governance	Moderately Likely (ML)	3
Environmental	Moderately Likely (ML)	3
Overall Likelihood of Sustainability	Moderately Likely (ML)	3

Country ownership

The following facts serve as evidence of the high level of ownership that the institutions, stakeholders and organizations at different levels have, related to the Project results:

- AyA units related to community water management were key in the execution of the Project at the central and regional levels.
- Consulted stakeholders expressed the relevance of the Project results and continue to use the tools developed during its execution.
- The depth of knowledge about climate change and the need to implement adaptation-based measures within the ASADAS, is evident. Even when many challenges remain, it is noticeable that all relevant stakeholders understand that water resource management is a long-term process.
- The project realized the need to strengthen FLUs and promote an integration process that respects the governance of the ASADAS themselves, as well as the need for adaptation-based future planning.
- ASADAS and ORACs now understand that water resource management needs to integrate territorial planning in its long-term strategy.

During the process of the TE, there were no negative appreciations regarding the Project from any stakeholders; on the contrary, the contributions it made are noticeable and are part of a change in the paradigm on how the work with ASADAS should be carried out.

The Project did not operate isolated, but rather fostered spaces for dialogue at the political and technical level and between key stakeholders; furthermore, it provided technical support for strategic issues such as the development of the National Adaptation Policy. The role of UNDP and the Project is crucial in the management not only of water but also of natural resources at the national level, as well as in providing the technical support of the bodies in charge of the issue.

Gender equality and women's empowerment

The project defines as GEN 2 and rates as gender responsive on a GEF Gender Outcome Effectiveness Scale (GRES). The results addressed the different needs of women and men and bases on an equitable perspective in the distribution of resources, benefits, status, and rights, but it did not address the roots of the problems that cause inequities. It is clear that this is not the objective of the Project and, actually, it is considered as pioneer in addressing the issue of gender in an environmental Project within UNDP (at country level) and executed with GEF funds.

Below the TE presents a very valuable summary that was included in a publication on successful experiences on Projects with Innovative Solutions for Nature, Climate Action and Gender Equality, where the case of Strengthening of ASADAS was taken as a successful example.

Table18.Requirements for GEF´s gender policy

Compliance with the requirements of the GEF Gender policy		
	Planning	Implementation
Identify and describe gender differences.	x	x
Identify and describe the impacts, risks and opportunities differentiated by gender related to the project.	x	x
Reported budget and human resources accounted for.		X
Include responsive gender measures in its plan of gender.		x
It includes gender sensitive indicators and targets disaggregated by sex.	x	x
Provides equal opportunities to men and women in participation and decision-making.	x	x
Provides equal opportunities for men and women to benefit from the Project.	x	x

Source: From Words to Action (2020).

As already stated in the TE analysis on the gender approach section, the Project established a roadmap to address the issue from the very beginning. To carry out this roadmap, the expert on the subject performed a diagnosis to understand the situation that women face in community water management. This resulted in the establishment of an approach strategy for ASADAS, ASADAS' boards of directors and ORACs, as well as at the institutional level of AyA (in other words, influencing beyond the scope of the Project).

In general, the project included measures to establish strategies to promote spaces for the specific participation for women and the promotion of their participation and their empowerment. Specifically, a list of the main activities that carried out related to gender equality within water resource management is presented below:

- Two Technology Rallies for Women, implemented in 2019 and 2020 (virtually) with more than 50 young women related to ASADAS, from the target areas, participated. It undertook in coordination with UCR, and was based on tutors (mainly young women student from the School of Geography that worked as volunteers) approach, seeking solutions based on geospatial technology to face problems identified in water resource management in their communities.
- Basic training for women on plumbing (with the participation of 32 women). This training incorporated at the National Learning Institute (INA).
- The First National Meeting of Women and Climate Change was held in alliance with the Citizen Consultative Council on Climate Change for Women (5C Women) and the National Institute for Women, (where more than 40 women's organizations participated and addressed issues of adaptation in relation to climate change.
- Guides, toolkits for gender equality issues at ASADAS, audiovisual material with women's life stories and other materials were designed as methodologies to promote that women are motivated to speak up and contribute their opinions.
- Workshops and trainings were programmed at schedules suitable for the participation of women and, in some cases, daycare-like rooms were set in order to facilitate the participation of women with children.

The Project promoted and supported the participation of young women related to the Project at different international forums so that they can share their experience, the challenges they faced (or continue to face) and achievements obtained in their role as leaders in the community-based water resource management. All these actions contribute to raise the voice of women in the sector, and especially of young women. As previously stated, the Project is a pioneer at the UNDP and it has served as an example of good practices, so that other projects incorporate gender equality issues since its design.

At a national level, the Project contributed to the formulation of the AyA´s Gender Equality Policy 2018-2033 and its Action Plan (2018-2022). The general objective of the Policy is to promote the implementation of strategic actions for the mainstreaming of a gender approach in all AyA actions, contributing to the reduction of the gaps between women and men in order to strengthen a democratic and inclusive development and an integrated management of water resources (Política de Género de AyA). The Policy raises 5 key aspects related to generating 1) An environment free of sexism and discrimination; 2) Reconciliation of work and family life; 3) Gender equality in opportunities and benefits for AyA staff; 4) Services with a gender perspective and, 5.) Gender equality in Rural Aqueduct Associations (ASADAS).

The AyA´s work union has ratified those principles, and the issue is becoming more relevant in an institution that has

historically made women's work invisible and has predominantly sexist structures. Furthermore, these advances have led to the creation of an Interdisciplinary Committee of the AyA Gender Equality Policy for the implementation of the Policy and the Plan.

The context that regulates ASADAS has not facilitated the participation and empowerment of women, which is inequitable in many aspects. For example, ASADAS regulation establishes that in their assemblies (for decision-making and election of Boards of Directors, among others) only property owners can participate. This situation limits the participation of women and young people, since in most cases men are the owners of the land and water connections. In order to change this structural and regulatory barrier, the Project actively supported the preparation of the Comprehensive Reform of ASADAS Regulation project. This technical support sought to break down regulatory obstacles so that women and young people can participate of the assemblies and, therefore, of the Boards of Directors of ASADAS. Women are, in many cases, represented in more traditional roles such as those related to administration.

These and other key initiatives were executed in coordination with the Interdisciplinary Committee of Gender Equality Policy of AyA and were presented to the Board of Directors and other AyA units, which implies national reach. These actions have contributed positioning AYA´s Gender Unit within the institution, with better and greater capacities and stronger political influence. On the other hand, the reform of ASADAS' regulations allows that representation (including vote) for assemblies can be delegated to someone different than the property owner, which, even when it might be consider as a small reform of the regulations, is a strategy to break down barriers due to gender issues and achieve spaces for participation and decision-making for women.

The Project leaves results and achievements in policy issues at the institutional level (AyA) related to gender equity (which lays important foundations for other public institutions to implement similar measures). But is also provided key tools for women to have more options and capacities regarding in water resources community management (and their empowerment), such as the change in regulations to increase the participation of women in ASADAS' assemblies, training on plumbing for women or even the document with " tips "to incorporate the gender approach in working with ASADAS. It is worth mentioning that the training being developed with INA and INAMU for plumber women (with a formal accreditation based on 250 hours of study and practice) opens up non-traditional job options for women (generation of sources of employment) that translate into income generation (which can also affect their economic empowerment).

Another example worth noticing is the Technology Rally, which opened spaces for women to develop their technical skills, but above all, creates opportunities for them to approach CC issues from a technology perspective. Some of the ideas that emerged in the workshops are being implemented at the local level, even in Municipalities and in coordination with MINSA (as is the case of Tamarindo, where geospatial information is being used to identify contamination due to grey waters), or the use of apps for monitoring reforestation activities carried out during the Project. The exchange of information and experiences between women, and creating opportunities to enhance their technical and technological capacities is key to a comprehensive approach not only to gender aspects, but also to water resources management with an adaptation-based approach.

With the purpose of highlighting the importance of, and the work carried out in, the issue of gender equity, it should be noted that the Project has been awarded because its gender perspective approach:

- ✓ The publication "From Words to Action: Projects with Innovative Solutions to Confront Climate Change and Promote Equality of Gender " produced by the regional Interagency Group of Gender, integrated by UNDP, UN Women and UN Environment recognized he emblematic results of the Project as an example of good regional practices in gender perspective issues in environmental projects and vertical funds. This publication was presented during a Webinar for Latin America and the Caribbean.
- ✓ The project was selected as one of the successful experiences in the country to participate in the event "From words to action: projects with innovative solutions to face climate change and promote gender equality", held during the 25th Preparatory Meeting (PreCOP25) to the Conference of the Parties to the United Nations Framework Convention on Climate Change (COP25), including the participation of a woman community manager from TNN.

Overall, the Project is comprehensive incorporating gender equality in its approach and aligns with the principles of GEF and UNDP. It stands out as a milestone regarding how projects are designed and implemented in environmental areas under a cross-gender approach.

Cross-cutting Issues

The objectives and results of the Project is in line with the strategies of the UNDP country program and the SDGs, and contributes to the reports on required by the GEF, as well as the environmental conventions that have been ratified at the country level.

Other elements such as poverty alleviation, governance, climate change mitigation and adaptation, disaster prevention and recovery, human rights and capacity development, South-South cooperation, knowledge management, and volunteering (GEF, 202), are incorporated in the design and execution of the Project in all its cycles and interventions.

Catalytic/Replication Effect

Based on the evidence analyzed during the TE, it can be affirmed that the Project has a catalytic effect and is replicable, due to the following findings:

Table 19. Assessment of Catalytic Role

Scaling up	Other cooperation agencies/key stakeholders, AyA and ORACs in other zones of the country, are adopting certain outputs developed throughout the project. Those outputs and tools can continue to expand at the national level if they are further mainstreamed at AyA management level. The adoption of GIRA within the requirements of the CNE in risk management issues stands out
Replication	Other ASADAS and institutions are using the tools and guides of the Project. Their approach can continue its replication at the national level.
Demonstration	Guides and tools produced were developed in coordination with public entities, have been delivered as open material, and were available to ASADAS or any other instance or organization that requires them.
Producción of Public Good	Efforts to catalyze the public good (integrated and adaptation-based water management) were successful through the development of technical and communication material, information dissemination and training.

Source: Own elaboration base don GEFs TE guidelines.

Progress to impact

The analysis of the possible future impact of the project interventions significant. It is very likely that the results achieved by the Project will be sustained and strengthened, but there are external risks that can affect its progress to impact

Table 20. Progress to impact assessment

Factor	Calificación
Environmental stress reduction	Significant
Environmental status change	Significant
Contributions to changes in policy/legal/regulatory frameworks	Low Moderate
Contributions to changes in socio-economic status	Significant

The table above, provided by the GEF, allows to analyze the possible impact on key issues. It is clear that the project affects the reduction of environmental stress, by working on a significant improvement in the infrastructure of ASADAS, and in promoting water source protection processes. The Project was not aimed at promoting structural changes in the regulatory

or political frameworks. Nonetheless, it is expected that, through the strengthening of ASADAS model, increasing the availability of water resources and improvement in its distribution, possible positive impacts will be generated at the socioeconomic level for ASADAS and, depending on the professionalization of the water resources management in the country, for the people working on the administration of the associations.

CONCLUSIONS

Main findings

The Project contributes in solving some of the main challenges related to water resources integral management. Nonetheless, in order to generalize an approach that supports strengthening of ASADAS (including resilience and adaptation-based measures) much more needs to be done at a national level. The support provided by the Project to the water resources management sector has been key and it is clear that, when finished, ASADAS and ORACs will miss the direct support the project used to provide to them. The public sector (mainly) has to, not only continue with, but also enhance the significant achievements of the Project at the regional and national level.

The experience of the Project also demonstrated that, in order to involve the private sector, clear strategies translated into business opportunities for the companies, are necessary. It also demonstrated that the articulation with local governments, civil society, international cooperation and public entities is necessary to generate sustainable changes.

The project demonstrated that Municipalities need to be involved in the water resource management processes. There is a need of a structural change at the local level and within AyA itself regarding a climate change adaptation-based vision (based on the long term) in the projects carried out by the Institution, as well as the limitations that the ORACs face in order to provide support to ASADAS in their regular operations.

ASADAS have to deal with a great number of requirements and have little incentives or support. The project demonstrated that it is possible to replicate a strengthening model based in generating capacities at a local level, development of tools and technical guides based on the needs of the associations and an adaptation-based approach; as well the need to articulate efforts involving institutions at different levels to create a holistic and comprehensive approach.

In conclusion, the TE demonstrated that the Project achieved the objective to improve water supply and promote sustainable water practices of end users and productive sectors by advancing community- and ecosystem-based measures. Furthermore, the project addressed projected climate-related hydrological vulnerability in northern Costa Rica. All of the above through community, ecosystem, infrastructure and risk management -based adaptation measures at the ASADAS level, in order to reduce hydric vulnerability related to climate variations. The project reached (and exceeded) 4 out of 5 objectives stated at its design. Even though differences between the target zones are noticeable, this is explained trough the sociocultural, environmental and organizational context of the regions, rather than because of the approach of the Project (that actually, not only understood, but also incorporated such particularities and needs within its strategy)[13].

More specifically, some of the most relevant findings are discussed below:

The institutional, normative and regulatory context is complex and the model for community-based water management needs to be rethought

Even when the Project operated in complex scenario (with challenges at the environmental, organizational, technical and regulatory level), this is only a reflection of the general situation at the national level. As previously stated, the framework under which the ASADAS operate is complex implies a heavy burden on its operations, despite of the importance of the role

13 During the field mission, differences related to how ASADAS in conceive and manage risks and CC effects were. This can respond to the climatic, geographical and environmental conditions of the areas (including the quantity and availability of water). It was noticed that in TNN exists more awareness regarding the need for adaptation and "technical" management on CC issues. While in Guanacaste, CC seems to be absent on the regular discussions related to water resources management, even when drought conditions are more frequent. At the coast, this situation is even more stressed (it is worth mentioning that ASADAS at the coastal zone were not visited during field mission).

they play in human and productive activities. On the other hand, the capacity to provide comprehensive, technical support in time by the institutions (AyA and ORACs) is limited because of the lack of personnel, budget restrictions and the work overload they face.

Even when the Project had great impact on the ASADAS it worked with, the community-based water management model needs to be re-think. ASADAS need (almost urgently) to keep investing in infrastructural, organizational, technical/technological and financial capabilities in order to face, not only the challenge that water resource management represents itself, but also to continue planning for a future that will present more extreme climatological scenarios.

Even when ASADAS intervened by the Project present a significant difference in terms of risk management (compared to those that were not involved in it), it is mandatory to invest in water sources protection, rethink how the ASADAS react when facing emergencies and how the infrastructure is built. There is () an imbalance between the institutionality that ASADAS operate in, and their management capabilities. Even when the Project addressed this issue by creating tools and improving capabilities within ORACs and ASADAS, there is a need of greater structural support to the sector.

Changing the legislation so that ASADAS could operate under a more "business minded" model might be a heavy, bureaucratic route that might end up being unsuccessful. Nonetheless, the Project has demonstrated that promoting the strengthening of second-tier structures such as FLUs is very effective and efficient (as well as relevant and sustainable). Once again, the support provided to the LCA, and the support this institution gives in turn to its affiliated ASADAS, is worth noticing.

The articulation with entities such as Banco Popular, INDER, INA, ORAC and academia has proven vital to strengthening ASADAS at different levels.

The project is extremely significant for the strengthening of ASADAS, its adaptation capacity and the management of water resources in the country

It is clear that the Project sets a precedent in the way interventions related to community-based water resources management can and should be carried out. The inter institutional coordination, the understanding of the country's regulatory framework as well as the governance of the ASADAS themselves, and the enormous technical capacity in matters related to adaptation to climate change were differentiating elements worth noticing.

The UNDP demonstrated that the GEF support in investing funds from the Special Climate Fund in Costa Rica was appropriate. The approach followed on promoting (especially during the second part of the project) ecosystem-based adaptation measures (along with community, infrastructure and risk management approaches to adaptation), promoted a change of culture the institutional level and within the ASADAS.

The technical studies carried out (hydrogeological, meteorological, risk management, among others) generated key scientific information and data for the country, not only of water resources management, but also on the topic of adaptation to climate change. The Project changed the way the Public sector approaches the challenges of CC to a paradigm based on adaptation and organizational strengthening to plan in the long term.

The project promoted comprehensive interventions with technical support by creating tools with national reach.

Throughout the TE the results and possible impacts generated by the tools and guides developed, created under a capacity development approach, rather than simple trainings or specific workshops, were noticed. This means that a paradigm shift process was promoted, through collaborative work ***with*** the ASADAS and the development of their capacities.

The Project is a pioneer in the incorporation of gender equality approach in interventions related to community-based water management and similar projects

The project demonstrates the importance of including gender equality perspective in the design and implementation of projects related to community-based water management, as well as in UNDP and GEF projects overall (at least at a country level). Even though gender equality was not incorporated transversally in the design of the project, the way in which it was executed is a model to be followed. At different levels (micro, meso and macro) the Project integrated key strategies in the incorporation of this approach, and significant results were achieved that transcended the execution of the Project.

The design of the Projects and adaptive management is crucial to facilitate interventions and improve results.

The process for drafting proposals should be streamlined and modified to ensure that the objectives planned are realistic and adjusted to the context of the country and of the different parties involved in the project. Additionally, these proposals must align to outcomes and, every outcome should be linked as well as an indicator in order to facilitate visualization of achievements, especially for the PIRs.

Regarding the design of the projects, it is also important that the identification and participations of all relevant parties involved is duly performed since the very beginning (as an example, for this project, DCC was not involved during the first half of the execution period), in order for all parties to contribute actively in all stages of the Project.

Finally, the involvement of all parties involved in the Project must undertake a comprehensive assessment, including the financial implications of their participation. As an example, the barrier faced by the participation of the private sector (both households and producers).

Recommendations

Actions needed to continue and/or enhance Project's results

1. AyA, ORACs and cooperation agencies should support the strengthening/creation of FLUs following the model of the LCA in order to provide services to ASADAS, keep on working (in an integral manner) in the fusion and integration process of small ASADAS, help in providing access to financing and, lastly, ecosystems-adaptation- and community-based approaches related to infrastructure and risk management.
2. Along this line, it is recommended that the Cooperation Board continue its efforts to facilitate the process of defining the Water Resources Protection Tariff. As well as the work articulated with Banco Popular (and even the INDER) for facilitating access to loans that supports the development of the necessary technical studies and the acquisition of land for the protection of water sources. BioFin could continue the results achieve by the Project on this matter.
3. To promote the diffusion of the information, tools and knowledge created throughout the Project to ASADAS at a national level. A digital repository (such as the website www.capacitacionasadas.com) is recommended. In addition, AyA and ORACs should foster the use of the tools developed as they not only help in the management of ASADAS, but also provide technical information for ASADAS operations.
4. There is potential in managing funds for adaptation (based on ecosystems, communities, and infrastructure and risk management) and continuing investment in strengthening ASADAS. Still, it would be a differentiating element to propose interventions from a gender perspective that promote the involvement of more women in ASADAS and that is accompanied by technical training processes that allow (even more) development of capabilities at the local level and access to paid jobs.

At the institutional level

5. Legislation related to ASADAS management should be rethought as it is very complex, AyA´s role is twofold (operator and inspector at the same time) and operating requirements are extremely complex for ASADAS to comply with. On the other hand, ASADAS usually receive little support. A single law related to ASADAS operation could be an option for its strengthening, organizational development, professionalization and access to financial services (mainly for adaptation-based investment). ASADAS should be able to operate as small and medium social enterprises, therefore having access to different income sources in order to improve its technical and operative capacities, promote

professionalization of the people involved in water resources management and pay accordingly to the people that work in the administration of ASADAS.

6. A change in the legislation to foster the participation of women and young people is urgent, in order to promote their contribution in the decision-making process but also for succession planning, as well as promoting the participation of women in paid jobs within ASADAS.
7. It is vital and urgent that at a country level (AyA, CNE, ORACs) an adaptation-based vision is institutionalized. From the design of aqueducts to the ASADAS integration processes, the institutions must take into consideration the projections of climate change scenarios in the availability of water sources and in its integral management. There must be an adaptation-resilience vision integrated from the construction or reconstruction of infrastructure at the national level to the daily operations of the relevant institutions.
8. The water resource management scheme must transcend the local/community sphere. It is necessary for the country to carry out hydrogeological and hydric studies at the national level (and with clear terms of reference, adaptable to the condition of the ASADAS) to understand the actual availability of water (and not sectored, as it is done today). Thus, to plan based on a comprehensive approach (for example, watershed instead of water sources and small communities) that transcends the geographical area. Therefore, generating scientific data for the process of ASADAS integration is vital.
9. In Costa Rica there are two cases of aquifers managed under SENARA's Sustainable Aquifer Use Plans (PAS) (Sardinal and Huacas-Tamarindo). This methodology allows the private sector, community and public sector to work together managing the use of common aquifers. Future interventions on water management could explore this or innovative models to engage the private sector in water resource management issues. Working with the private sector from an ecosystem-based adaptation approach is critical and should be linked to initiatives such as BioFin, in order to ensure protection of water sources under a territorial development approach (BioFin works along with SINAC for the creation of financial incentives related finance green infrastructure in Protected Areas). This model could also be explored to finance both the design and investment in communal aqueducts. In the medium term, soft loans from Banco Popular are an option for ASADAS that need to invest in infrastructure.
10. Even though the legal framework of the country might be an obstacle, UNDP should explore the possibility to undertake more projects under a government cost-sharing model so that AyA (and other public institutions) can translate part of their budget to be executed directly by UNDP, with proven ability to execute such projects. This model would speed up the capacity to implement actions, the articulation with other public entities and cooperation funds, and foster transparency to the investments and actions carried out through its M&E systems.
11. The budget assigned to ORACs should be increased so that they can provide better services to ASADAS. Furthermore, ORACs should foster the use of the tools created by the project and adopt an appropriate community- and ecosystem-based adaptive measures under a long-term approach

At PNUD-GEF level

12. The process related to designing projects could be improve in order to facilitate achieving certain indicators. The relationship between indicators-targets-outcomes could be improved to make it more straightforward and coherent to the activities expected by the project. Likewise, current reporting systems can be complex and make it difficult to reflect the lessons learned, achievements and results of the Projects. Moreover, gender issues should presented in a more relevant and clear manner.
13. The continuity of some of the actions performed by the Project would be recommended so that integrated water management within the framework of the adaptation and strengthening of ASADAS continues and goes beyond the Project. Different founding mechanisms such as proposals at the Green Fund for Climate and German Cooperation Agencies (already presented) should be pursued to give continuity to the results achieve by the Project.

Lessons learned

(+-)The Project Results Frameworks should be designed more realistically within the scope of the Project (in terms of, financial and human resources), in order to make it possible to achieve the solutions established in the ToC. The design of the project must comply with the standards of the donor, but should also be realistic and contextualized.

(+-) Even though the Project demonstrates that, despite of the fact that gender equality was not integrated since the design phase, but incorporated at the beginning of the implementation, results can still be achieved. The Project developed a gender diagnosis at the initial phase that made it possible to create a clear framework of propose a road map to obtain concrete results in working with women in non-traditional sectors such as community-based water resource management. It should be noted that this lesson learned, has already been integrated in the design of other Projects within UNDP (even projects founded by GEF as well). Furthermore, including an expert in the topic as part of the team, allocating resources and the commitment of the Project staff and is fundamental.

(++)Developing tools and practical guides at based on audiovisual resources, along with technical support is key for the development of capacities at the local and institutional level. The Project carried out a large number of technical studies, later on translated into practical tools for ASADAS to analyze risks, water balance calculations and strategic planning considering adaptation issues (among others). These tools and practical guides aligns with the institutional requirements and regulations ASADAS must comply with, and facilitate the generation of key data. At the same time, practical videos on topics such as assembling artisan chlorinators, CC adaptation measures as well as the importance of water resources while facing a pandemic such as COVID-19, among others, were created. Including technological and creative solutions is vital for the success of projects of this magnitude.

(++)A differentiating element of the Project is that it followed a *co-invested* and *co-managing strategy* with the ASADAS. The investments made in infrastructure (rather than simply donated under a turnkey approach), promoted the strengthening of ASADAS and the sustainability of the results. ASADAS provided equipment, labor, and even financial resources in return for the support/equipment/infrastructure provided by the Project. Close technical support throughout the process was crucial and ensured sustainability of the investments.

(++)Financial measures, such as installing micrometers at the household, have clear and immediate effects with respect to the rational use of water. Which, along with training and awareness campaigns, derived in a more responsible and better management of water resources, thus end users pay for the water they consume, and ASADAS have better information on the availability of the water resource and in turn, increase in their income.

(++)Community- based water management is key to provide the water for human and productive consumption, but also as a mean to face the impacts of climate change and reduce vulnerabilities to risks at the local level. The Project demonstrated that working under an integrated approach to adaptation based on ecosystems, infrastructure, communities and risk management is essential to strengthen ASADAS and the capacity to deal with climate change in the territories. Instead of minimizing work performed by community water managers, international cooperation should articulate actions to enhance the work they undertake and, at the same time, influence processes related to impact ASADAS and the management of water resources in general. A territorial approach instead of a local one is fundamental.

(++) (++) Second tier organizations such as FLUs (specifically models such as Communal Water League) should continue to be supported and enhanced. These organizations group ASADAS at the local level and provide technical services required by the ASADAS (such as accounting, engineering, supply of materials, among others) in a much more efficient way that ASADAS could do in an isolated manner. Due to the implementation of this pilot, other cooperation agencies (namely Avina) managed to gathered funds to develop a project with the objective to replicate FLUs like the LCA in the target area and other zones in the country. This model demonstrated that it is possible for these organizations to be sustainable at the same time that they provide strategic services to ASADAS and reinvest in the sector.

ANNEXES

Anexo 1. List of interviews

Institution	Position
ASADAS (Beneficitiaries)	ASADAS staff (board, employees)
MINAE	Climate Change Office
Fundecooperación	Staff related to the project
AYA	Unit of ASADAS
AYA	Head of ORACH Chorotega
AYA	Director UEN ASADAS
AYA	Head of ORAC Huetar Norte
Liga comunal del agua (Guanacaste)	Board
UNDP Staff	Project´s Team
ORAC HN	Staff related to the project
Municipality of Upala	Staff related to the project
Fundación Avina	Staff related to the project
IMN	Staff related to the project
Unión de Acueductos Norte-Norte	Board
SENARA	Staff related to the project
SINAC	Staff related to the project
UCR-UNA	Staff related to the project
CEDARENA	Staff related to the project
UNDP Staff	Coordinator of the Technical Unit for Gender Equality and the Empowerment of Women
ARESEP	Staff related to the project
Guanacaste Fund	Board
Laboratorio Nacional de Aguas	Staff related to the project
Dirección de Aguas	Staff related to the project

Anexo 2. Interview guide

Project Coordinator and representatives of UNDP linked to the Project, and RTA-GEF.

1. Regarding project design, was it aligned with national strategies, is it still relevant from your perspective? What adjustments would you consider necessary? Is the incorporation of the gender perspective relevant?

2. Regarding the logical framework, is it consistent with the actions carried out (and is it related to indicators and products)? It allows an adequate follow-up to the execution of the project.

3. From your perspective, what have been the main achievements and what factors have influenced their achievement? And what have been the main limitations? Have there been any delays and what corrective measures are being taken?

4. Taking into account the organization chart of the Project, how is decision-making carried out? What is the relationship with the Technical Committee and the Board of Directors (meeting frequency, decision-making process, accountability, etc.)?

5. As a particular emphasis, it is important to know how the people participating in the technical committees and in the BD were defined?

6. Regarding the financial management of the project, how have the resources been executed to date and the contributions of the co-financing? Have there been important changes in the assigned items? How do you keep track of financial management and accountability?

7. How do you assess the strategic alliances with key stakeholders that have been established? Are there key actors / institutions that are not involved and who should be (public institutions, local governments, private companies, among others)? Do you consider that the project is influencing / sensitizing key sectors (governments, civil society, etc.)?

8. What is the relationship with GEF and the accountability processes? Do you think adjustments are required?

9. Regarding the communication of the project, how have the communication channels and contents and the audiences to whom it is addressed been defined, as well as the purposes for which these initiatives are developed?

10. From your perspective, what are the greatest challenges and advantages for the sustainability of the project?

In charge of Monitoring and Evaluation (individual in-depth interview)

1. Regarding the design of the project, how was it built and aligned with national strategies, is it still relevant from your perspective? What adjustments would you consider necessary? How was the gender perspective built and what key actors were involved?

2. Regarding the logical framework, is it consistent with the actions carried out (and is it related to indicators and products)? It allows an adequate follow-up to the execution of the project.

3. With regard to monitoring and evaluation systems at the project level:
• The monitoring tools currently used. Do they offer the necessary information? Do they involve key partners? Are they aligned with or incorporated into national systems? Do they use existing information? Are they efficient? Are they profitable? Are additional tools required? How can they become more participatory and inclusive?
• From your perspective, are sufficient resources allocated for monitoring and evaluation? Are these resources used effectively?
• How is the gender perspective incorporated in this monitoring?

4. From your perspective, what have been the main achievements and what factors have influenced their achievement? And what have been the main limitations? Have there been any delays and what corrective measures are being taken?

5. How is the information gathered translated into lessons learned, technical knowledge, and content to communicate the project's achievements? How is this information incorporated into the management systems of the institutions involved?

6. From your perspective, what are the greatest challenges and advantages for the sustainability of the project?

Expert in gender issues (an in-depth individual semi-structured interview will be used)

This interview will be a little less structured, but emphasis will be placed on understanding how gender issues were considered in:

- The statement of the project problem and its design.
- In the Monitoring and Follow-up System (including the Logical Framework and in the follow-up to the achievement of results).
- In the decision-making structure of the Project (participation of women in the team, in the Board of Directors, the technical committees and in the beneficiary populations).
- Formulation and implementation of the gender plan.

- Way in which the inclusion of the gender perspective in the project could have been improved.
- Way in which differentiated results were achieved, possible future impacts.
- Lessons for upcoming projects.

In addition, the perspective of the expert will be addressed with respect to the way in which the project had an impact or not on issues of gender inequality in the distribution of resources, participation in decision-making and management structures, among others. As well as the way in which the actions of the project positively or negatively affected women and girls.

In-depth individual interview with the project communicator

- How was the internal and external communication of the Project carried out? (communication channels, content development, stakeholder engagement)?
- How has the scope of communication products been monitored?
- What activities / knowledge products have been developed?
- How is the information gathered translated into lessons learned, technical knowledge, and content to communicate project achievements? How is this information incorporated into the management systems of the institutions involved?
- From your perspective, what are the greatest challenges and advantages for the sustainability of the project at this stage of closure?
- Lessons for future projects.

Project Technical Unit and Technical Committee.

Design:

1. 1. Regarding the design of the project, how was it built and aligned with national strategies, is it still relevant from your perspective? What adjustments would you consider necessary? How was the gender perspective built and what key actors were involved?
2. 2. Do you consider that there are elements that can be recommended to improve the design?

Results Framework:

3. 3. Were the objectives and results of the project or its components clear, practical and feasible to carry out during the time stipulated for its execution? (are they SMART?)
4. 4. Has the progress so far generated beneficial development effects or could it catalyze them in the future (eg in terms of income generation, gender equality and empowerment of women, improvements in governance, etc.)? Are they all within the project results framework and are they monitored on an annual basis?

Achievement of results

5. How and to what extent were the expected results of the project achieved?
6. What are the barriers or obstacles that the project has faced in advancing towards the goals stipulated in the progress matrix?
7. What factors facilitated progress towards the goals stipulated in the progress matrix?
8. What changes (if any) could have been made to the project design to improve the achievement of the expected results?

Project execution and adaptive management

9. How effective has the Project management been as described in the Project Document -PRODOC?
10. Was adaptive management used or needed to ensure efficient use of resources?
11. How do you rate the quality of the support provided by UNDP, GEF and counterparts?
12. Was the Project developed and forged appropriate alliances, both with direct stakeholders and with other tangential agents?
13. How do local and national governments support the objectives of the Project?
14. How has public involvement and awareness been raised and to what extent did they contribute to the progress made towards achieving the Project's objectives?
15. How is the project management information compliant with GEF requirements, communicated to the Project Board and lessons shared with and internalized by key partners?
16. Did the current planning approach and tools used effectively guide project management?
17. To what extent was financial management and co-financing carried out and how have they supported the implementation of the project actions?
18. How did monitoring and evaluation facilitate project management and results orientation?
19. With what actions would you strengthen project management in the remaining period of execution?

Sustainability

20. To what extent are there financial, institutional, socio-economic and / or environmental risks to the long-term sustainability of the Project results?
21. How can the identified risks be overcome and managed in order to achieve the expected results of the project?

Board of Directors (semi-structured individual or group interview)

1. Regarding the design of the project, how was it built and aligned with national strategies, is it still relevant from your perspective? What adjustments would you consider necessary? How was the gender perspective built and what key actors were involved?

2. Regarding the logical framework, is it consistent with the actions carried out (and is it related to indicators and products)? It allows an adequate follow-up to the execution of the project.

3. From your perspective, what have been the main achievements and what factors have influenced their achievement? And what have been the main limitations? Have there been any delays and what corrective measures are being taken?

4. Taking into account the organization chart of the Project, how was decision-making carried out? What is the relationship with the Technical Committee and the Board of Directors (meeting frequency, decision-making process, accountability, etc.)?

5. As a particular emphasis, it is important to know how the people participating in the technical committees (if they existed) and in the Board of Directors were defined?

6. How were communication and decision-making channels established and executed between the Board of Directors and the executing unit, as well as with other actors / institutions involved?

7. Regarding the financial management of the project, how was the execution of resources to date and the contributions of the co-financing? Were there important changes in the assigned items? How was financial management and accountability controlled?

8. How do you assess the strategic alliances with key stakeholders that have been established? Are there key actors / institutions that were not involved and that should be (public institutions, local governments, private companies, among others)? Do you consider that the project influenced / sensitized key sectors (governments, civil society, etc.)?

9. What is the relationship with GEF and the accountability processes? Do you consider that adjustments are required?

Group interviews in the field with representatives of ASADAS

At this point, it is difficult to present a detailed tool for collecting information in the field with the ASADAS, since the information is being reviewed and key elements will be studied in depth during the first rounds of interviews. However, during the information gathering sessions with key individuals or organizations, key information will be collected regarding:

- Importance of the project for your ASADA.
- Activities carried out and follow-up (relationship) with project executors. Emphasis on services / activities provided by the project.
- Changes at the level of infrastructure, availability / quality of water, training, key information at the regional level, alliances with other ASADAS or reference institutions, etc.
- Recommendations for future projects.
- Perspectives for the sustainability of the interventions (at an environmental, financial, organizational capacity level).

Anexo 3. Field mission itinerary

Date/Time		Activity	Objectives	Participants
March 22	06:30h	Departure to Ciudad Quesada	Meeting with the Regional Office of Communal Aqueducts (ORAC) Huetar Norte	• Evaluation team • UNDP Project Team: Karen Araya Varela, María Venegas Vargas, Jairo Serna Bonilla, Gerardo Quirós Cuadra
	09:00-10:00	Meeting ORAC HN	Review of key elements of the project in the North-North Territory	• Evaluation team • ORAC Huetar Norte: Héctor Paniagua, Luis Diego Alfaro, Andrea Alfaro, Carlos Matamoros
	10:30-12:30	Departure to Chan Varela Buenavista de Guatuso spring and lunch	Transfer to project sites	• Evaluation team • UNDP Project Team
	13:00-16:00	visit to the Naciente Chan Varela and meeting with ASADA Buenavista	Obtain information on Project interventions, mainly in integrated investments: Ecosystem-based Adaptation, Community-based Adaptation, Infrastructure-based Adaptation and Water Protection Fee (TPH)	• Evaluation team • Buena Vista ASADAS board
	16:00-17:30	Meeting regarding the Water Resource Protection Tariff and Protection Plans		• Evaluation team • Representatives of ASADAS Buenavista, San Rafael de Guatuso, Santa Fe and Río Celeste
	17:30-19:00	Departure and night at Upala	Transfer to project sites	• Evaluation team • UNDP Project Team
March 23	08:00-10:0	Early Warning System Meeting	Learn details of the SAT Upala and the interventions to support the canton in terms of preparations	• Evaluation team • Wilson Espinoza Cerdas, Jorge Mario Gonzáles, Sandra Salazar, Municipality. • Ricardo Salazar, CNE
	10:00-12:00	Meeting with the Municipality and Professional Technical Highschool of Upala (CTP)	Dialogue on Green Infrastructure. (It can be suggested at CTP de Upala)	• Evaluation team • Mayra Monge, CTP and Diego Mora, Upala Municipality
	12:00-13:00	Lunch		
	13:00-15:30	Visit Naciente Villa Fátima and meeting with ASADA San José de Upala	Obtain information on Project interventions, mainly in integrated investments: AbE, AbC y AbI	• Evaluation team • Kimberly Rivas, Board
		Meeting ASADA Bijagua	Obtain information on Project interventions, mainly in integrated investments : AbE, AbC, AbI y TPH	• Evaluation team • Jorge Mario González, Pamela Valerio y Board ASADA Bijagua
	15:30 -16:30	Departure and night at Upala	Transfer to project sites	• Evaluation team • UNDP Staff
	16:30-17:30	Meeting ASADA Bijagua	Obtain information on Project interventions, mainly in integrated investments: AbE, AbC, AbI y TPH	• Evaluation team • Jorge Mario González, Pamela Valerio y Board ASADA Bijagua
	17:30 19:30	Departure and night at Upala	Transfer to project sites	• Evaluation team • UNDP Staff
March 24	07:00-09:00	Departure to Juntas de Caoba (La Cruz)	Transfer to project sites	• Evaluation team • UNDP Staff
	09:00-12:00	Visit to ASADA Juntas de Caoba and meeting with the Board of Directors	Obtain information on Project interventions in infrastructure and visit of elements	• Evaluation team • Dina Guzmán, Board
	12:00-13:30	Departure to Cuajiniquil and lunch	Transfer to project sites	• Evaluation team • UNDP Staff
	13:00-15:00	Visit and meeting with ASADA Cuajiniquil	Obtain information on Project interventions in infrastructure and visit of elements	• Evaluation team • Ana María Orellana, Staff and board
	15:00-16:00	Departure for Liberia	Transfer to project sites	• Evaluation team • UNDP Staff

Date/Time		Activity	Objectives	Participants
	16:00-18:00	Meeting and visit con ASADA El Salto	Obtain information on Project interventions in infrastructure and visit of elements	• Evaluation team • Joselyn Ruiz, board
		Night at Liberia		• Evaluation team • UNDP Staff
March 25	8:30-11:00	Meeting ORAC Chorotega	Review of key elements of interventions in the Chorotega Region	• Evaluation team • Liany Alfaro and ORAC staff
	11:00-13:00	Transfer to Carrillo	Transfer to project sites	• Evaluation team • UNDP Staff
	13:00-15:00	Santa Rita-Carrillo	Obtain information on Project interventions in infrastructure and visit of elements	• Evaluation team • Magaly Aguilar, Board
	15:30-17:00	ASADA Artola de Carrillo	Obtain information on Project interventions in infrastructure and visit of elements	• Evaluation team
	17:00-18:30	Departure, night at Nicoya	Transfer to project sites	• Evaluation team • UNDP Staff
March 26	07:30-10:00	ASADA San Vicente de Nicoya	Obtain information on Project interventions in infrastructure and visit of elements	
	10:00-11:00	Departure to Hojancha	Transfer to project sites	
	13:00-16:00	Workshop at Liga Comunal del Agua	Know about collaborative work in the matter of associativity	Members of LCA
March 27	09:00-12:00	Visit of other ASADAS or work with the project team (optional)	Interventions ASADAS Hojancha (Pilangosta, Pita Rayada, San Rafael, Monte Romo)	
	12:00-13:00	Lunch		
	13:00	Departure to Valle Central		

Anexo 4. Evaluation Matrix

Evaluation Criteria Matrix template

Evaluative Criteria Questions	Indicators	Sources	Methodology
Relevance: How does the project relate to the main objectives of the GEF Focal area, and to theenvironment and development priorities a the local, regional and national level?			
(include evaluative questions)	*(i.e. relationships established, level of coherence between project design and implementation approach, specific activities conducted, quality of risk mitigation strategies, etc.)*	*(i.e. project documentation, nationalpolicies or strategies, websites, project staff, project partners, data collected throughout theTE mission, etc.)*	*(i.e. document analysis, data analysis, interviews with project staff, interviews with stakeholders, etc.)*
Effectiveness: To what extent have the expected outcomes and objectives of the project beenachieved?			
Efficiency: Was the project implemented efficiently, in line with international and national norms andstandards?			
Sustainability: To what extent are there financial, institutional, socio-political, and/or environmentalrisks to sustaining long-term project results?			
Gender equality and women's empowerment: How did the project contribute to gender equality and women's empowerment?			
Impact: Are there indications that the project has contributed to, or enabled progress towardreduced environmental stress and/or improved ecological status?			

Evaluation Ratings Table

1. Monitoring & Evaluation (M&E)	Rating
M&E design at entry	
M&E Plan Implementation	
Overall Quality of M&E	
2. Implementing Agency (IA) Implementation & Executing Agency (EA)Execution	**Rating**
Quality of UNDP Implementation/Oversight	
Quality of Implementing Partner Execution	
Overall quality of Implementation/Execution	
3. Assessment of Outcomes	**Rating**
Relevance	
Effectiveness	

Efficiency	
Overall Project Outcome Rating	
4. Sustainability	Rating
Financial sustainability	
Socio-political sustainability	
Institutional framework and governance sustainability	
Environmental sustainability	
Overall Likelihood of Sustainability	

TE Rating Scales

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

Monitoring & Evaluation Ratings Scale

Rating	Description
6 = Highly Satisfactory (HS)	There were no short comings; quality of M&E design/implementation exceeded expectations
5 = Satisfactory (S)	There were minor shortcomings; quality of M&E design/implementation met expectations
4 = Moderately Satisfactory (MS)	There were moderate shortcomings; quality of M&E design/implementation more or less met expectations
3 = Moderately Unsatisfactory (MU)	There were significant shortcomings; quality of M&E design/implementation was somewhat lower than expected
2 = Unsatisfactory (U)	There were major shortcomings; quality of M&E design/implementation was substantially lower than expected
1 = Highly Unsatisfactory (HU)	There were severe shortcomings in M&E design/implementation
Unable to Assess (UA)	The available information does not allow an assessment of the quality of M&E design/implementation.

Implementation/Oversight and Execution Ratings Scale

Rating	Description
6 = Highly Satisfactory (HS)	There were no shortcomings; quality of implementation/execution exceeded expectations

5 = Satisfactory (S)	There were no or minor shortcomings; quality of implementation/execution met expectations.
4 = Moderately Satisfactory (MS)	There were some shortcomings; quality of implementation/execution more or less met expectations.
3 = Moderately Unsatisfactory (MU)	There were significant shortcomings; quality of implementation/execution was somewhat lower than expected
2 = Unsatisfactory (U)	There were major shortcomings; quality of implementation/execution was substantially lower than Expected
1 = Highly Unsatisfactory (HU)	There were severe shortcomings in quality of implementation/execution
Unable to Assess (UA)	The available information does not allow an assessmentof the quality of implementation and execution

Outcome Ratings Scale - Relevance, Effectiveness, Efficiency

Rating	Description
6 = Highly Satisfactory (HS)	Level of outcomes achieved clearly exceeds expectationsand/or there were no shortcomings
5 = Satisfactory (S)	Level of outcomes achieved was as expected and/or therewere no or minor shortcomings
4 = Moderately Satisfactory (MS)	Level of outcomes achieved more or less as expectedand/or there were moderate shortcomings.
3 = Moderately Unsatisfactory (MU)	Level of outcomes achieved somewhat lower thanexpected and/or there were significant shortcomings
2 = Unsatisfactory (U)	Level of outcomes achieved substantially lower thanexpected and/or there were major shortcomings.
1 = Highly Unsatisfactory (HU)	Only a negligible level of outcomes achieved and/or therewere severe shortcomings
Unable to Assess (UA)	The available information does not allow an assessment ofthe level of outcome achievements

Sustainability Ratings Scale

Ratings	Description
4 = Likely (L)	There are little or no risks to sustainability
3 = Moderately Likely (ML)	There are moderate risks to sustainability
2 = Moderately Unlikely (MU)	There are significant risks to sustainability
1 = Unlikely (U)	There are severe risks to sustainability
Unable to Assess (UA)	Unable to assess the expected incidence and magnitude of risks to sustainability

Anexo 5. List of consulted documents

Document	Information
Project Identification form	General information on project planning
ProDoc	Detailed information on the objectives of the project
Social and environmental screening template	Evaluation of possible risks related to the project
MidTerm Evaluation Report	Report on the progress of the project to the year 2018
Gender equality policy AyA	Guidelines and work plan to achieve gender equity in projects related to water resources in the country.
Policy for the Organization and Strengthening of Community Management of Drinking Water and Sanitation Services AyA	General information on ASADAS in the intervened cantons.
PIR 2020 of the Project	Information on the scope of the results obtained in the project at the end of 2020
National Drinking Water Policy of Costa Rica 2017 - 2030 AyA	General information on ASADAS in the intervened cantons.
National Risk Management Policy	Information on water issues in the intervened cantons.
National Development Plan. MIDEPLAN	Information on water issues in the intervened cantons.
Water and Sanitation 2030, analysis related to the SDGs. MIDEPLAN	General information on ASADAS in the intervened cantons.
National Climate Change Strategy. MINAE	Information on water issues in the intervened cantons.
Management response and tracking template	Recommendations made in the MidTerm Evaluation and its compliance or not.
Quarterly and annual reports of the project	Information on the progress of the achievement of results
Back to Office Reports	Report of the main findings, agreements and considerations of field visits.

Anexo 6. Survey to ASADAS

Evaluation survey of the ASADAS UNDP-AyA strengthening program
The objective of this survey is to evaluate the impact of the project "Strengthening
the Capacities of Associations of Rural Aqueducts (ASADAS) to face risks of Climate Change in communities with water stress in the North of Costa Rica "executed from 2016 to 2021 by UNDP in conjunction with AyA

* Required

1. Name of ASADA *

2. Gender

Mark only one oval.

Male – Female -
I prefer not to say

3. Canton to which ASADA belongs *

Mark only one oval.

Guatuso Upala
Los Chiles La Cruz Liberia
Cañas Santa Cruz Hojancha
Nicoya Carrillo

4. Total number of connections

5. Total number of subscribers.

6. Total number of women subscribers.

7. Total number of paid legal entities.

8. How many micro-meters (meters) have been installed thanks to the ASADAS Strengthening project in the same period (2016-2021). Indicate in numbers. *

9. How many macro-meters have been installed thanks to the ASADAS Strengthening project in the same period (2016-2021). Indicate in numbers

10. Has the water quality improved?

Mark only one oval.

Yes No

11. Has the availability of water increased compared to the start of the project?*

Mark only one oval.

Yes No

12. How many months of continuous water availability did ASADA have in the last year? Indicate in numbers *

13. When planning projects (from infrastructure improvements to training), the opinion and needs of people from the following

groups are taken into consideration: (check all that apply)*

Check all that apply.

Women
Children and adolescents
Indigenous people
Afro-descendant people
People with disabilities
Older adults
People from the LGBTQI community +
Other minorities
None of the above

Which of the following benefits has ASADA received / taken advantage of? Check all that apply.

Check all that apply.

Technical studies for infrastructure improvement Hydrogeological studies in sources
Studies for the detection of agrochemicals in the springs Improvements in the water collection infrastructure
Improvements in water storage infrastructure Improvements in water distribution infrastructure Improvements in sanitation and wastewater systems Capture of new water sources
Reforestation programs to protect water sources
Installation of rainwater collection systems for non-potable uses in public buildings
Installation of water saving devices in homes Trainings on administrative issues for the management of the ASADA
Training to improve water collection, storage and distribution systems
User training on good practices for saving water and climate change
Use of the early warning system (EWS)
Use of the monitoring program for the early detection of the presence of agrochemicals in water sources
Use of the SAGA system (ASADAS Management System)
Use of the information system of the hydrometeorological stations Implementation of the risk management plan (GIRA)
In case the infrastructure has been affected by natural phenomena (hurricanes, tropical storms), support in its rehabilitation.
Others

15. What do you consider to be the main challenges your ASADA faces when project support ends or ends?

Check all that apply.

Lack of budget
Lack of technical skills Limited staff
Institutional Support Others

16. In the following space, provide information about other projects that have been carried out in the community thanks to the support of the ASADAS project (UNDP-AyA)

17. Has the relationship with other entities been strengthened due to the project? Specify:

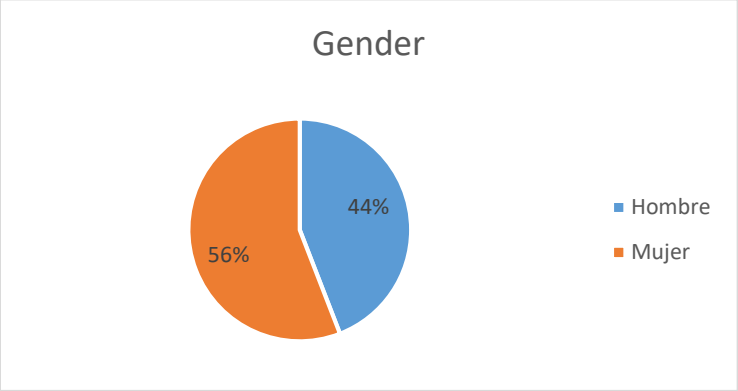
18. Based on the project's interventions, have relations with the community or users been strengthened? Please indicate yes or no. If the answer is yes, please describe.

19. Based on the project's interventions, do you consider that ASADA is better prepared to face the risks of climate change? Indicate yes or no and explain your answer (indicate the greatest challenge to face the effects of climate change in the future).

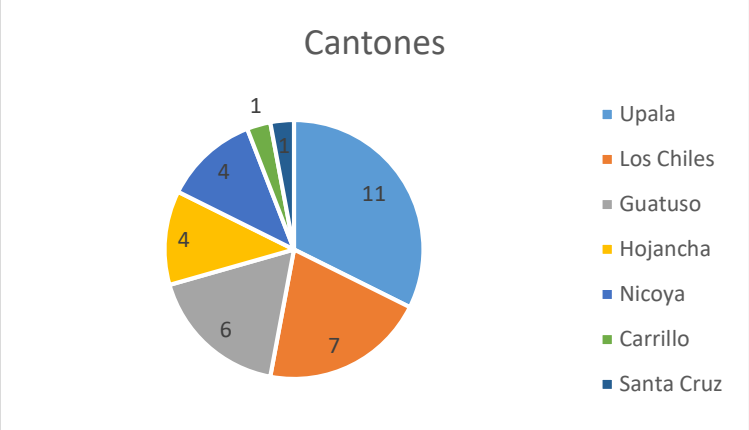
What other effects have the project and the management improvements had on the community? For example: Better coordination in the community to carry out other projects not related to water, creation of community organizations for other problems, etc..

Anexo 7. Results of the survey

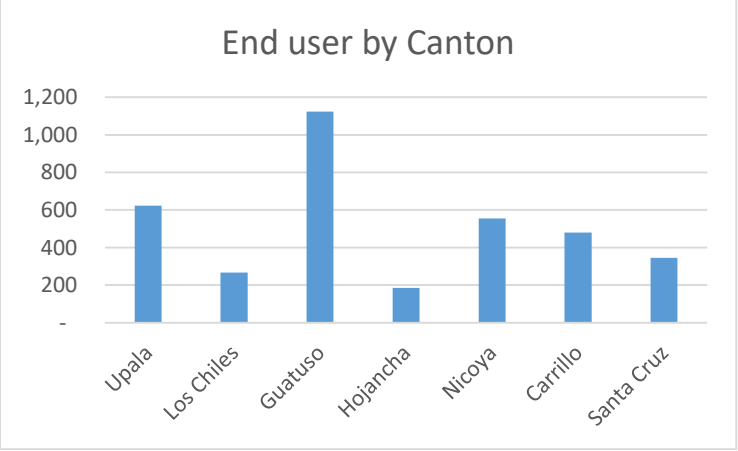
This annex contains the results (and its corresponding analysis) of the survey applied to the ASADAS related to the Project in the North and Chorotega Region. The questionnaire was designed online, and taking into account the connection possibilities and the recommendation of the Project team, it was sent via WhatsApp to the ASADAS involved. The survey was sent with the support of UNDP staff to each of the WhatsApp groups by work area, that is, to a total of 203 associations. Although the information was sent to all the participating ASADAS, responses were received from a total of 38. However, if the responses obtained are considered, as well as the field work carried out in the framework of the TE, it is clear that the perspectives are positive with respect to the Project and its interventions and that the data from the survey coincide with those found in the gathering of primary information with ASADAS and other key people interviewed.



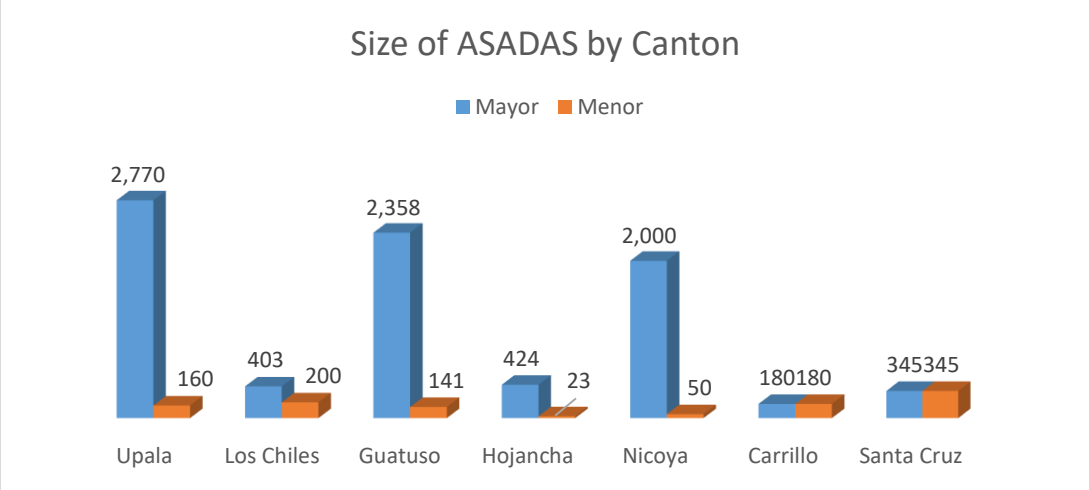
Of the 10 cantons participating in the project, only 7 participated in the survey. No responses were recorded from the cantons of Cañas, Liberia or La Cruz



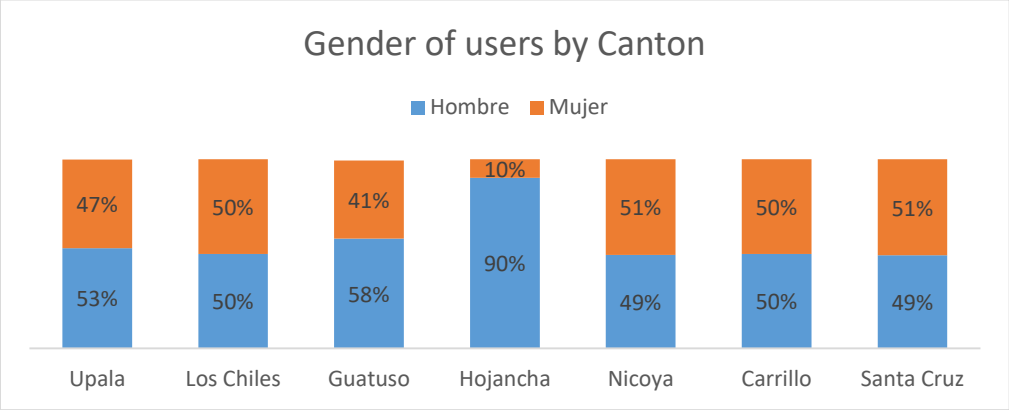
Regarding the size of the ASADAS, an interesting variation is found both at the average level within the cantons that answered, and at the intracantonal level. As can be seen in the following graph, the cantons of Upala and Guatuso have on average the ASADAS with the highest number of subscribers, while Hojancha and Los Chiles have the ASADAS with the lowest average number of subscribers:



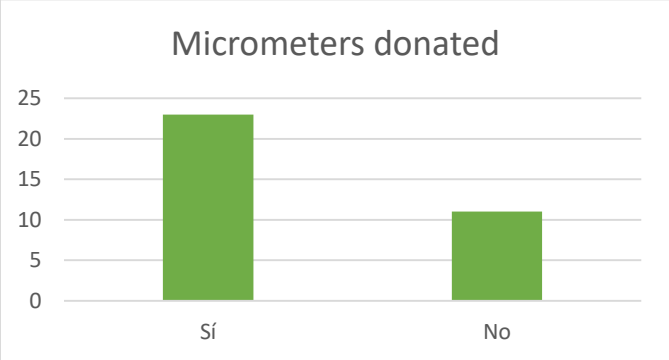
However, at the intracantonal level, there are also important differences. For example, in the canton of Upala, the ASADA with the highest number of subscribers has 2,770, while the one with the least number of connections has 160. In the case of Guatuso, the ASADA with the lowest number of users is 141, while the Asada de San Rafael de Guatuso (head of the canton) is 17 times greater. As you can see, the ASADA with the least number of connections is in the canton of Hojancha, with 23 connections in total..



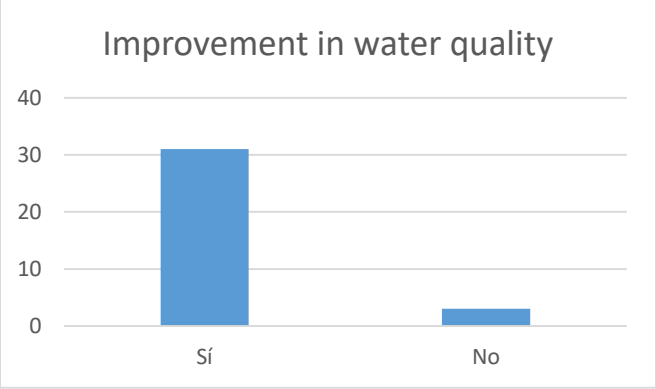
Regarding the composition of subscribers by gender, taking into consideration only the ASADAS that had information segregated by subscriber gender, on average in the cantons there is evidence of parity, with the exception of the canton of Hojancha. However, for the canton of Hojancha only one response is reported, so the results are not representative for the canton.



Regarding the donation by the Micro-meters project to the different ASADAS, 23 out of 34 ASADAS that answered the survey indicated that they had received them. The sum of the Micro-meters indicated by the respondents is 2873. It is important to indicate that, according to the numbers reported by the project, in total for the 203 ASADAS intervened, 10,346 were donated.

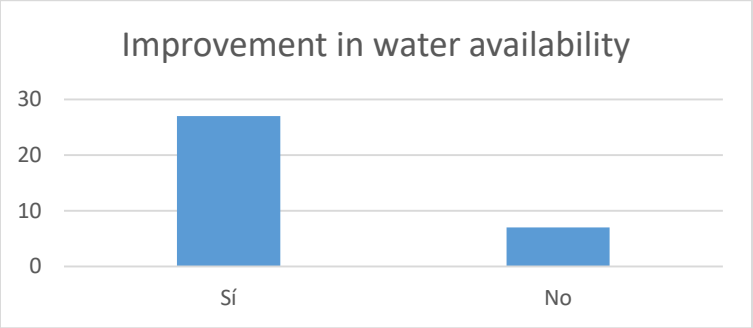


In terms of improvement in water quality, only 3 ASADAS answered that the quality of the water had not improved because of the project. It is likely that among the measures that helped the remaining 31 ASADAS are the chlorination processes that were promoted by the project with the course for the construction of artisanal chlorinators.

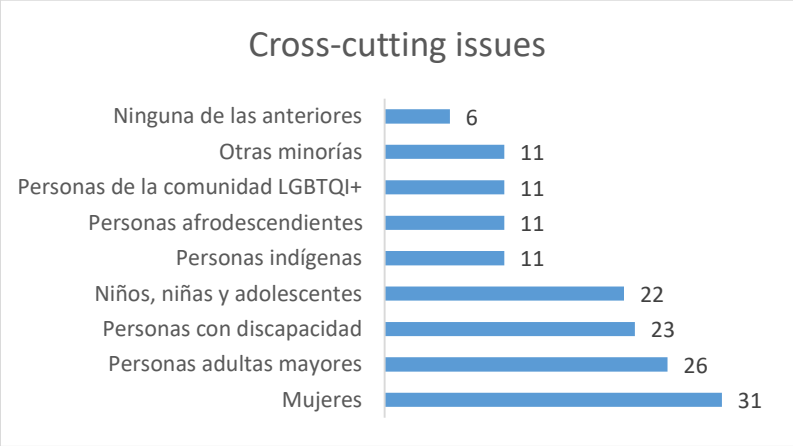


Another important component that the project had as its objective was the increase in the availability of water in the aqueducts. Of the total of 34 ASADAS that responded, 7 indicated that this factor had not increased, while the remaining 27 stated that availability had increased, compared to the start of the project.

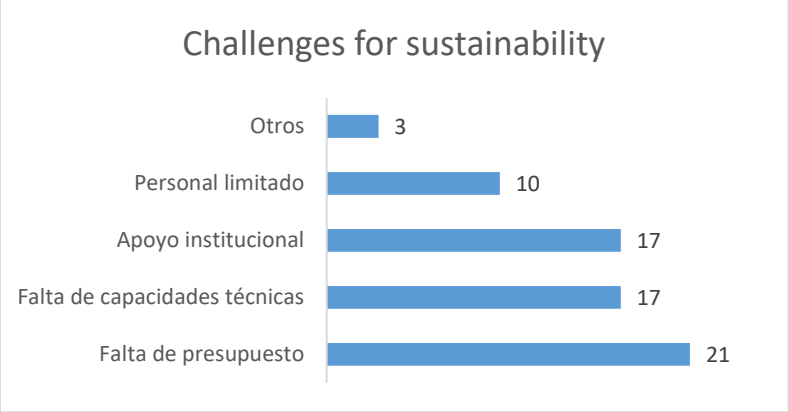
Additionally, regarding the availability of water in months during the last year, 32 ASADAS indicated having had availability during the entire previous year, while one indicated that it had availability for 11.9 months and one that it had availability for 10 months in the previous year.



With regard to cross-cutting issues, when the ASADAS were consulted on the needs and opinions of minority groups that were taken into consideration when planning projects, a strong gender focus is evidenced, as 31 of the ASADAS indicated that they take women into account. , followed by the group of older adults which are considered in 74.3% of the ASADAS. People with disabilities and children and adolescents follow them in order of importance, being considered in 23 and 22 ASADAS respectively. 11 ASADAS of the total of respondents indicate taking into account the opinions and needs of indigenous people, people of African descent, people from the LGBTQI + community or other minorities.



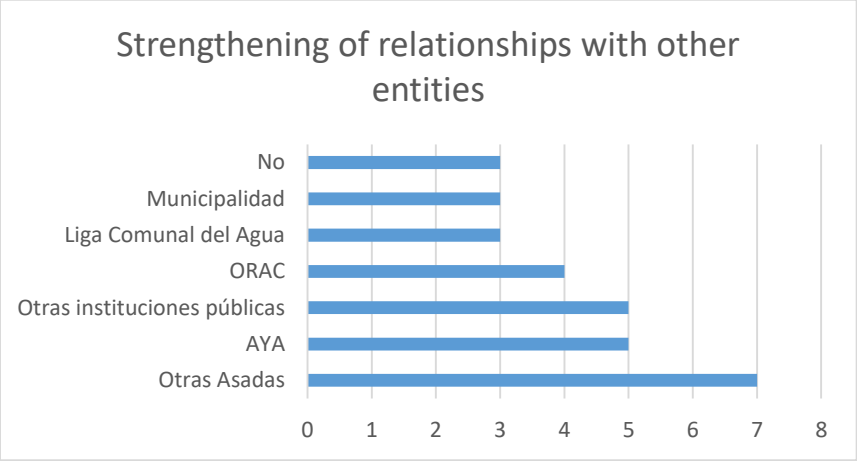
In terms of sustainability, the ASADAS were consulted on the main challenges they will face once the support from part of the project has ended. The main challenge indicated is related to the budget that the ASADAS have to carry out their projects, followed by the lack of technical capacities and institutional support. Below you can see the results:



When consulting additional projects that have been carried out in the communities with the support of the project, the:

- Weather stations.
- Workshops and trainings.
- Pilot plan for the water resource protection fee.
- Improvements in the pipes and in the offices of the ASADAS.
- Improvements in the catchment of springs.

One of the main benefits that the project has brought and that has been repeatedly mentioned by the interviewees, has been the ability to articulate between different actors related to the management of water resources. Therefore, the respondents were consulted about strengthening with other entities. Most of the ASADAS indicated that the project allowed them to improve their relationship with neighboring ASADAS, which reinforces what was indicated in the interviews on associativity issues. They also indicate that the project allowed them to approach the AYA, other public institutions and the AyA Regional Offices (ORACs). Here are the results:



Another important component of the project was training for users. This presented an important opportunity for ASADAS to have a better relationship with the users that make up the community. Of the 34 respondents, only 2 indicated that community relations had not been strengthened thanks to the project's interventions.

Among the reasons or "vehicles" that managed to strengthen the relationship with the communities are identified:

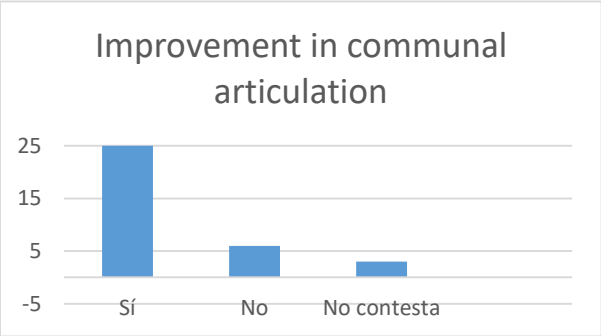
- Improvements in service provision.
- Trainings.
- Reforestation projects.
- Improvements in administrative management.
- Improved accountability to the community.

Regarding the preparation that ASADAS have to face climate change and its impact on the management of water resources, 31 out of 33 ASADAS indicated that they are better prepared. Among the biggest challenges they consider to face are:

- Human impact (pollution, lack of education and awareness).
- Need for reforestation to protect sources.
- Responsible use of the resource.

Finally, and considering that capacity building in the ASADAS and working with the populations could permeate other areas of the community taking advantage of the better coordination that the project could have carried out, the ASADAS were consulted about other positive effects that they have perceived. Of the 34 respondents, 3 did not answer the question, 6 indicated that no other effect related to communal capacity was perceived and 25

indicated that they had perceived that the capacities to articulate communal projects had improved.



Among the areas or projects mentioned that show improvement in community articulation, the following are mentioned:

- Work articulated with the community development association for waste processing.
- I work with local emergency commissions.
- Projects of other institutions with the community (Coopeguanacaste).
- Greater involvement of communities in projects of common benefit.
- In addition, one of the respondents indicates that thanks to the project, the participation of women in different areas of the community has increased.

Anexo 8. UNEG Code of Conduct for Evaluators

Evaluation Consultant Agreement Form

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

Name of Evaluator: Ariana Araujo Resenterra

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

Signed in San José, Costa Rica, April 30th, 2021

Sign:

_____

Ariana Araujo Resenterra

Terminal evaluator

Anexo 9. Risks identified at ProDoc

Risk	Rating	Risk Mitigation Strategy
Staff changes among implementing partners taking into account the uncertainties of the current administration represent delays in project implementation.	L	The project team will continuously raise awareness about what the project is seeking to achieve among the staff of the implementing partners (AyA, ASADAS, MINAE, MAG, Ministry of Health, and IMN). This is important to ensure that they are aware about their roles in achieving the project objective and outcomes as well progress in achieving the outcomes, including the socioeconomic and environmental benefits, and delivering on the outputs. To ensure awareness about the project, inter-institutional coordination mechanisms have been defined (e.g., inter-institutional agreements, multiple training events, knowledge management system, and Project Board meetings).
Coordination among stakeholders regarding climate change, including the private sector, could be limited.	M	Consultations were carried out during the project design with all of the key ministries and stakeholders, including the AyA, ASADAS, MINAE, and MAG to establish sustained ownership and support for the project. It is fully recognized that for the successful implementation of project activities, effective coordination among all interested parties is necessary. They are also aware of the fact that robust integration of climate change considerations into their agendas is needed. The project will further promote support and networking with high-level leadership to prioritize climate change adaptation and build awareness on the direct and indirect project benefits at the local, subnational, and national levels.
Decision and policy-makers do not appreciate the need to mainstream ecosystem-based adaptation considerations into public and private sector policies and investments.	M	The project aims to strengthen climate change awareness among the public and private sectors, including ecosystem-based adaptation and ecosystem services and their socioeconomic benefits. Economic valuation of ecosystem services will allow decision makers in the public and private sectors to better understand the economic advantage of adopting ecosystem-based adaptation approach to production over the BAU alternative. The project also aims to build capacity among decision-makers in selected companies and financial institutions regarding climate change to facilitate decision-making processes.
The guarantors of rights may not have the capacity to fulfill their obligations with the project	M	The ASADAS are responsible for guaranteeing the continued provision of potable water to the end users; this guarantee depends on the technical and organizational capacity of the ASADAS to meet their obligations. The project gives special attention to strengthening the technical, operational, and management capacity of the ASADAS to ensure that they can provide high quality services to the end users.
Conflicts between at the local level (ASADAS, communities, and end users) could result in claims or disputes regarding management of water resources	M	Some proposals for improving access and quality of water services could include the merging of smaller ASADAS with larger ones, which may lead to local claims or disputes. The project will adopt a conciliatory approach and will guarantee access to clean drinking water for all beneficiaries and their participation in all decision-making processes. In case agreement cannot be reached, the project will seek alternatives approaches that will satisfy all interested parties.
The project could affect land tenure and/or community property rights, and/or customary rights to land or resources	L	During the project preparation phase the ASADAS expressed the importance of owning the land surrounding the water sources and associated aquifer recharge areas. Access to water sources could generate conflict with the current owners of the surrounding lands. The project will follow all procedures outlined in Costa Rican legislation related to these issues to avoid any conflicts regarding land property rights and waters resources use rights, including community and/or customary rights.
Local stakeholders (ASADAS, farmers, and municipal authorities) do not agree to adopt adaptation strategies at the ecosystem/watershed level.	M	During project preparation, local meetings were held with the majority of the beneficiary ASADAS in the prioritized region (northern Costa Rica: SEMUs 1, 2, and 3) to discuss the project and gain support for project implementation. During implementation the project will raise awareness and provide technical support and training to ASADAS, farmers, and municipal authorities to advance collaborative mechanisms throughout selected watersheds for the implementation of ecosystem/watershed-level adaptation actions.

Anexo 10. Summary of indicators

Objective:	Indicator	Baseline		Target	TE
Project Objective: Improve water supply and promote sustainable water practices of end users and productive sectors by advancing community- and ecosystem-based measures in rural ASADAS to address projected climate-related hydrological vulnerability in northern Costa Rica.	Proportion of ASADAS with continued water availability for different time periods	12 months	83%	100% at least 5 months	93%
		9-11 months	3%		6%
		6-8 months	4%		1%
		3-5 months	2%		0%
		< 3 months	9%		0%
	Water availability per capita (water intake [volume at source]/number of people served by ASADA)	**Range (L/person/day)**	**ASADAS**	- - Water availability per capita is maintained or improved	
		< 200	5%		4%
		201-500	10%		21%
		501-1,500	23%		47%
		1,501-5,000	10%		11%
		5,001-10,000	3%		3%
		>10,000	5%		1%
		No Data			13%
Outcome 1.1: Infrastructure and technical capacity of ASADAs strengthened to cope with climate change impacts to aquifers in the target area.	Installed water storage capacity (days) to supply water (storage capacity/total average consumption per day)	**Storage capacity**	**ASADAS**	- The water storage capacity of all the ASADAS is at least 8 hours	
		0 horas	5%		2%
		0-2 horas	4%		8.50%
		2-4 horas	1%		1.50%
		4-8 horas	24%		20%
		8-14 horas	17%		38.30%
		> 14 horas	23%		24.90%
		Sin Datos	15%		4.50%
	Condition of the water supply system (evaluation index for system components)	Poor: 50% (index score: 60%)		Poor: 0% (index score: 60%)	16.30%
		Needs improvement: 40% (index score: 61% - 84% score)		Needs improvement: 50% (index score: 61% - 84% score)	34%
		Good: 10% (index score: 85%)		Good: 50% (index score 85%)	49.80%

Objective:	Indicator	Baseline	Target	TE
Outcome 1.2: The capacity of ASADAS' end users to mainstream climate change adaptation into their livelihoods systems is strengthened.	Number of household members and producers (differentiated by gender) trained to mainstream climate change adaptation into their livelihoods	- 0	- 1,500 (men 50%; women 50%)	4942 en total. 31.7% M, 34.9% H, 33.4%N.
	Proportion use of hydrometeorological information by ASADAS in planning processes (by type of plan)	Strategic plan: 52%	Strategic plan: At least 50%	67%
		Annual/monthly operation plan: 8%	Annual/monthly operation plan: At least 50%	23%
		Maintenance plan: 25%	Maintenance plan: At least 50%	51%
		Seasonal contingency plan: 4%	Seasonal contingency plan: At least 50%	27%
		Emergency/disasters plan: 2%	Emergency/disasters plan: At least 50%	28%
		CC adaptation plan: 3%	Climate change adaptation plan: At least 50%	29%
		Local communities communication/information plan: 6%	Local communities communication/information plan: At least 50%	17%
	Measures undertaken to reduce risks to climate change	Increase micro-metering: 8%	Increase micro-metering: 100%	98%
		Protection of water sources: 14%	Protection of water sources: At least 25%	62%
		Protection of pipes and other system components: 2%	Protection of pipes and other system components: At least 40%	32%
		Increase efficiency of maintenance: 10%	Increase efficiency of maintenance: At least 40%	89%
		Promote water-saving measures among users: 11%	Promote water-saving measures among users: At least 40%	52%
		None: 39%	None: 0%	8%
		Other: 17%	Other: 17%	22%
Outcome 2.1: Ecosystem-based climate change adaptation measures are integrated into public and private sector policies, strategies and investments related to rural community water-sourcing	Number of RMPPWS that incorporate ecosystem-based climate change adaptation, including gender considerations	- 0	- At least 40 RMPPWS developed with gender considerations integrated	46

Objective:	Indicator	Baseline	Target	TE
infrastructure and services	Number of AyA and CNE investments for the prioritized project area that integrate climate change risks	– AyA and CNE investments lack integration of climate change risks in the project area	– - AyA: at least three (one per target SEMU) – CNE: at least three (one per target SEMU)	61 AyA, 32 CNE
	Number of adaptation-related voluntary fee systems (expanded PES) implemented	– - Voluntary Watershed Payment: 0	– - Voluntary Watershed Payment: at least 5	0
Outcome 2.2: The purchasing and credit policies of at least 20 agricultural and livestock trading companies and five financial institutions operating in the target region promote adoption of productive practices that help maintain ecosystem resilience to climate change. .	Number of purchasing and credit policies of agricultural and livestock trading companies and financial institutions revised /adjusted	- 0	- At least 20	0
	Number of climate change-related initiatives making use revised purchasing and credit policies of agricultural and livestock trading companies and financial institutions	- 0	- At least 10 (one per target municipality)	0

Anexo 11. Information and links to materials and campaigns produced

1. Electronic copies of project results (brochures, manuals, technical reports, articles, etc.).

1.1 Improvement and Efficiency Plan (PME) for ASADAS, which seeks to develop management systems based on continuous improvement with a comprehensive approach to the thematic axes: management of drinking water systems, management of water resources, community management, commercial management and administrative management. financial The PME tool was also presented to strategic partners and is currently being implemented by AyA on a national scale. Download the technical sheet here.

1.1. Guide for the control of Unaccounted for Water (ANC) so that ASADAS can not only identify their water losses, but also define remedial actions to reduce ANC.
1.2. Logs and methodologies to support the implementation of the Water Quality Operational Control program..
1.3. Water balance calculator that allows establishing a long-term projection with more precise parameters regarding the availability of water in the sources and the projected population growth for each district at the national level.
1.4. Rate calculator according to current ARESEP specifications, which serves to verify the amounts that must be charged to end users for drinking water consumption, considering the rates for cut-off and reconnection, delinquency, hydrants and other charges. Download the technical sheet.
1.5. Quick guide for the installation of micro water meters for ASADAS
1.6. Quick guide to horizontal directional drilling using HDPE pipe.
1.7. Quick guide to pressure measurement and monitoring in distribution networks.
1.8. Quick guide for the installation of high density polyethylene tanks - HDPE.
1.9. Quick guide for the disinfection system and construction of artisanal chlorinators.
1.10. Information Sheet for Horizontal Directional Drilling to Install High-Density Polyethylene (HDPE) Pipe.
1.11. Geospatial viewer to analyze water resources in relation to scenarios and projections of effects of climate change, agricultural production and physical vulnerabilities.
1.12. Climate risk maps, high resolution with gender perspective of 16 cantons.
1.13. Disaster risk mapping in relation to ASADAS through an analysis and weighting of threats for the 71 sub-basins of the project area, including exposure to events of natural origin (climatic, geological), as well as of anthropogenic origin (productive activities, erosion, laminar erosion, etc.).
1.14. Protocol for the integration or merger of ASADAS.
1.15. Tool for Comprehensive Risk Management in ASADAS (GIRA) that guides step by step from the identification to the adoption of clear and simple procedures for the prevention and reduction of risks, the preparation of measures to address emergencies in their systems, guarantee continuity and recovery of services.
1.16. Guide to Adaptation Measures based on Ecosystems (EbA), Communities (AbC) and Risk Management in the face of climate change in communities with water stress in the North of Costa Rica.
1.17. Technical reports of the results of the hydrogeological studies for the identification of protection zones carried out by the Project in 40 sources of 25 ASADAS.
1.18. User guide for local actors such as municipalities and ASADAS to take greater advantage of climate risk maps with a gender and social inclusion perspective.
1.19. Technical note on UASB reactors that presents the main topics of interest related to the need to improve the design, construction and operation.
1.20. Publication of Words to Action: projects with innovative solutions for Nature, climate action and gender equality in Latin America and the Caribbean.
1.21. Steps for proper management of the aqueduct in times of COVID-19 is a quick guide that supports aqueducts on the responsible use of water in times of emergency due to the pandemic.
1.22. The days that everything stopped brings official information about COVID-19 to children in Costa Rica, as well as the measures we must take to protect them, in an educational and entertaining way.
1.23. Risk description of extreme hydrometeorological events in the North of Costa Rica.
1.24. Guide of species of interest in the regeneration of vegetation cover, contain results of the research action process for the development of a database of plant species of the project regions.

2. Sample of project communication materials

2.1. Sumá tu Gotita communication campaign: With a reach of more than 3 million people and more than 1.5 million views of the four chapters. The Government of Costa Rica and the Ministry of Public Education (MEP) have appropriated the comics to be broadcast in the program Aprendo en Casa de Café Nacional, reaching children throughout Costa Rica on open television and being used for educational purposes by educators. In the same way, AyA continues to use it as part of the Vigilantes del Agua program with coverage throughout the national territory.

- La aventura de gotita: episode 1
- La aventura de gotita: episode 2
- La aventura de gotita: episode 3
- La aventura de gotita: episode 4

2.2. On-line concert for water, climate and the environment: With the participation of more than 18,000 people from Costa Rica and other countries such as Argentina, Jamaica and Panama - it currently has about 80 thousand reproductions. With an interaction of more than 4,400 live comments, with positive reactions from people who endorsed the messages for water and nature, and thanked the space in times of pandemic.

2.3. Song "Agua que no Bebí" by the Malpaís group (one of the most influential and listened to musical groups in Costa Rica), inspired by the project. Through art and culture we sensitize an audience other than the one we usually reach about how changes in the climate are severely affecting the availability of water in Guanacaste. According to Jaime Gamboa, musical artist of the band, in a few weeks, this song became in the Top 10 of Grupo Malpaís, one of the most influential and listened to bands in Costa Rica.

2.4. Photo stories:

- Clean water against COVID-19
- Prepare the aqueduct to face the climate crisis
- From disaster to community development
- Young women facing the climate crisis with innovation
- Life's lesson
- Water that gives life to equality
- Water that gives life to equality
- Water for his people
- Life lessons

2.5. Educational videos and tutorials:

- Video on the participation of women in community management
- Video on the importance of associativity
- Video on the importance of integration
- Video on reducing Unaccounted for Water
- Video about risk management at ASADAS
- Video about AyA's Gender Policy
- Tutorial on the construction of artisan chlorinators
- Tutorial on conducting supply source gauging
- Tutorial on pressure measurement in communal aqueducts

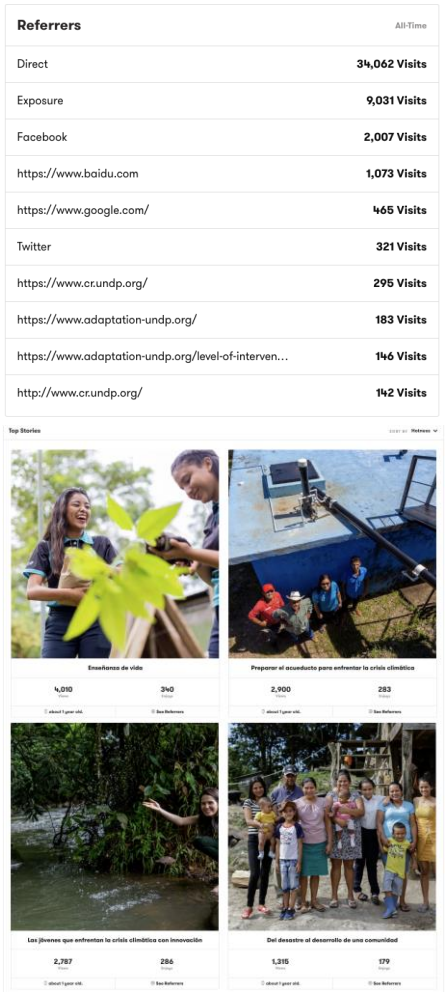
2.6. Life stories videos:

- Stand up to the flames to protect the forest
- Facing the flames to protect forest
- Agua que da vida a la igualdad
- Water that gives life to equality
- Comunidad, agua y desarrollo
- Community, water and development
- Proteger el ambiente para enfrentar los desastres
- Protect the environment and prevent disasters
- El agua limpia es la principal defensa contra COVID-19
- Clean water is the main defense against COVID-19
- Protect yourself and the community: A model aqueduct against COVID-19
- How to protect the health and development of the community: a model aqueduct in times of crisis

2.7. Acknowledgments:

- What is the UN doing in Costa Rica to leave no one behind? The intervention of the ASADAS AyA-GEF / UNDP project was the star result reported by UNDP for the UN report in Costa Rica to all partners, donors and counterparts, 2019.
- Public Service 2030: Making the Sustainable Development Goals happen. In 2018 the project was selected to show how UNDP, at the global level, enforces the Global Goals agenda. The ASADAS AyA - GEF / UNDP project evidenced the acceleration of SDG 6 (Clean water).
- The project was selected as one of the successful experiences to participate in the parallel event "From words to action: projects with innovative solutions to face climate change and promote gender equality", held during the 25th Preparatory Meeting (PreCOP25) to the Conference of the Parties to the United Nations Framework Convention on Climate Change (COP25).
- In the celebration of the Global Week of Action for the SDGs, led by the Government of the Republic, the Ombudsman's Office, Civil Society Organizations, the private sector, the Judiciary, local governments, and the United Nations, The AYA was selected as one of the institutions with the greatest contribution to the progress of the SDGs in the country, due to the implementation of the Project, which was chosen as one of three experiences that successfully promote the SDGs in Costa Rica and was presented as such at the event "Act for Sustainable Development in Costa Rica".

3. Relevant data on the project website, number of visits per month, page views, etc.

Activity	Reach	Link
Sumá tu Gotita Campaign	• Reach greater than 3 million people • + than a million and a half views of the chapters • Included in the program “Aprendo en casa del MEP”, with live broadcast on channel 13 on open TV reaching the entire national territory	https://sumatugotita.com/
Concert for Water and Climate	• 18 thousand people live • 4.3K reviews • + 79 thousand views	https://fb.watch/4xDMSclRLi/
Song Agua que no bebí	• Launch during the concert • Within the top 10 of the Malpaís Group in the first week of its launch	https://www.youtube.com/watch?v=zBk-Xkc-wcQ
Photo Life Stories	• 6 specials • + than 12,700 views only on the UNDP Costa Rica platforms • + 1,400 reactions only on the UNDP Costa Rica Exposure platform • The stories were also appropriate and shared from different platforms, for example: • The Gef web • UNDP creates equality • UNDP Climate Exposure • UNDP regional and global newsletters • UNDP LAC Story Sites • UN News in Spanish and English	
Videos stories and tutorial videos	• About 13 videos • + than 10 thousand views only on the UNDP YouTube channel in Costa Rica • Presented at AyA's massive activities as the Ecological Blue Flag award. • Distribution by AyA in the database of more than 14 thousand people of the ASADAS	https://www.youtube.com/channel/UCDw8duhpQEzOIBITYdfVXIw/videos

	● Distribution by ASADAS through WhatsApp in the communities ● Distribution by UNDP newsletters at regional and global level	
Recognitions	● More than 4 recognitions at national, regional and global level. ● Each of these publications were distributed to more than 5,000 people in Costa Rica alone.	
Press releases	● More than 8 press releases with outstanding results. ● Direct coordination with the Presidential House for its appropriation and dissemination in all official channels in order to give greater force to the message.	For example:

Anexo 12. Photographic memory Field Mission

Site	Description	Photo
Watershed ASADA Buena Vista, Guatuso	ASADA Buena Vista staff showing the main evaluator the source catchment tank, built thanks to the collaboration of the project.	
ASADA Buena Vista office, Guatuso	Map of the area covered by the ASADA in the canton of Guatuso	
ASADA Buena Vista office, Guatuso	Meeting with ASADAS from the Huetar Norte area	

Upala Professional Technical Highschool	Nursery donated by the project.	
ASADA San José de Upala	Catchment tank built thanks to the support of the project. The president, the administrator and the plumber show the evaluator the space that is an auditorium type to be able to take advantage of it in educational processes on the management of water resources	
ASADA San José de Upala	Artisanal chlorinator built thanks to the workshop given by the project, in use in the catchment tank.	

ASADA Juntas de Caoba, La Cruz	ASADA office	
ASADA Juntas de Caoba, La Cruz	The President, Vice President and Treasurer of ASADA along by the tank donated by the project.	
ASADA Cuajiniquil	Drilling of a new well, thanks to the support of the project that donated the hydrological study.	

ASADA El Salto, Liberia	Storage tank donated by the project.	
ASADA El Salto, Liberia	Macrometer donated by the project.	
ASADA Santa Rita, Carrillo	Santa Rita ASADA office	

ASADA Santa Rita, Carrillo	Catchment tanks donated by the project	
ASADA San Vicente, Nicoya	Catchment tanks donated by the project	
ASADA San Vicente, Nicoya	Well closed thanks to the support of the project.	

Liga Comunal del Agua, Hojancha	Meeting with more than 10 ASADAS affiliated with the Liga Comunal del Agua		
Pilangosta, Hojancha	Meteorological station installed on the Pilangosta field, Hojancha, donated as part of the project.		

ASADA Pilangosta, Hojancha	Storage tank donated by the project.	
ASADA Pitarayada, Hojancha	Storage tank donated by the project.	

ASADA Monteroso, Hojancha	Storage tank donated by the project.	
Cruz Roja, Hojancha	System for harvesting rainwater for non-potable uses in the Red Cross offices.	

Anexo 13. Terms of reference of the Final Evaluation

United Nations Development Program

Terminal Evaluation project Strengthening Capacities of Rural Aqueduct Associations' (ASADAS) to address climate change risks in water stressed communities of Northern Costa Rica (PIMS 5140)

Consultancy name:
Evaluation national team expert for the terminal evaluation (TE) project Strengthening Capacities of Rural Aqueduct Associations' (ASADAS) to address climate change risks in water stressed communities of Northern Costa Rica (PIMS 5140)[14]

BACKGROUND

1. Introduction

In accordance with UNDP and GEF M&E policies and procedures, all full- and medium-sized UNDP-supported GEF-financed projects are required to undergo a Terminal Evaluation (TE) at the end of the project. This Terms of Reference (ToR) sets out the expectations for the TE of the full sized project titled *Project Strengthening Capacities of Rural Aqueduct Associations' (ASADAS) to address climate change risks in water stressed communities of Northern Costa Rica* (PIMS 5140) implemented by the Costa Rican Office of the United Nations Development Program. The project started on May of 2016 and is in its 5 year of implementation. The TE process must follow the guidance outlined in the document 'Guidance For Conducting Terminal Evaluations of UNDP-Supported, GEF-Financed Projects' *(http://web.undp.org/evaluation/guideline/documents/GEF/TE_GuidanceforUNDP-supportedGEF-financedProjects.pdf*

2. Project Description

Costa Rica is already experiencing the effects of climate change (CC), principally in the northern region of the country. CC scenarios suggest that by 2080 the annual area rainfall will be reduced by up to 65% in the region. In the short term, rainfall is predicted to decrease 15% by 2020 and 35% by 2050. These extreme conditions will exacerbate climate and water stress in some areas, recreating conditions that are typical of semi-arid areas. If CC-driven pressures are not addressed, the region will continue to experience significant water shortages that will have a severe economic impact on the livelihoods of local communities and the productive sectors. In Costa Rica, rural aqueduct associations (ASADAS), which are locally organized groups of men and women from the user-communities delegated by the National Institute of Aqueducts and Sewers (AyA), provide potable water and sanitation services to 28.7% of the country's population, reaching communities in suburban and rural areas. Most ASADAS in the region must develop the necessary skills and have access to knowledge and tools, as well as adequate investment, in order to address the scarcity of the water supply due to CC. Existing aqueduct infrastructure is often outdated and overloaded, causing inefficient water delivery, which in turn complicates the collection of fees from end users. Instability of fee collection leads to financial uncertainty, which impedes the ASADAS and the AyA's ability to plan for and implement targeted improvements and new investments, including adaptation to CC. AyA investment plans lack community-based or ecosystem-based adaptation measures. If the ASADAS do not strengthen their capacities to cope with CC, the vulnerability of rural populations of the northern region of Costa Rica will only increase.

The long-term solution to mitigate the prevailing threats of water shortages to local livelihoods is to establish a holistic approach to managing the water supply and demand that takes CC into account. The objective of this five-year project is to improve water supply and promote sustainable water practices of end users and productive sectors by advancing community- and ecosystem-based adaptation measures in ASADAS to address projected climate-related hydrological vulnerability in northern Costa Rica. This will be achieved through community- and ecosystem-based measures in rural aqueduct associations (ASADAS) to address projected climate-related hydrological vulnerability. The interventions are targeted in the northern region of Costa Rica (Guanacaste and Alajuela provinces). However, the following barriers limit the achievement of the normative solution: a) lack of knowledge and access to finance for resilient infrastructure, efficient household-level water use technologies, and aquifer mapping to effectively manage water demand and usage and design strategies to conserve water during periods of drought; b) limited capacity and knowledge among local stakeholders to adopt sustainable water use practices and reduce their vulnerability to CC; c) incomplete hydroclimatological network and deficient climate early warning and information system (CEWS) that limit the ability of rural ASADAS and local communities to implement timely mitigation measures; d) lack of awareness among policy and decision-makers about the social, economic, and environmental implications of water resources vulnerability to CC; and e) lack of economic incentives for the livestock and agricultural sectors for adopting water conservation production practices to reduce their vulnerability to CC.

[14] The person hired with this process will work jointly with the evaluation team leader who UNDP hired through the evaluation roster.

The theory of change underpinning this project includes building community-based infrastructure and technical capacities to address projected changes in water availability (Component 1) and mainstreaming ecosystem-based adaptation measures into public and private sector policies and investments in the target area (Component 2).

The project includes the following outcomes and outputs:

Outcome 1.1 - Infrastructure and technical capacity of ASADAs strengthened to cope with climate change impacts to aquifers in the target area.

- *Output 1.1.1* – Strengthened metering systems to track water supply to end users (micro- and macro-meters) in the ASADAS network provide updated information on climate-related risks and vulnerability of project area water resources.
- *Output 1.1.2* – Water catchment (well, spring, and/or rain), storage, and distribution systems in rural areas improved and resilient to climate change.
- *Output 1.1.3* – Water-saving devices installed in homes.
- *Output 1.1.4* – Pilot sanitation and purification measures (e.g., sludge management and dry-composting toilets) and other adaptive technologies for wastewater management to improve water quality.
- *Output 1.1.5* – Water sources and associated aquifer recharge areas protected and/or rehabilitated through reforestation, natural regeneration, and other protection and conservation measures.

Outcome 1.2 – The capacity of ASADAS' end users to mainstream climate change adaptation into their livelihoods systems is strengthened.

- Output 1.2.1 – Community-based climate change training program with a gender focus and includes minority groups, such as indigenous communities

Outcome 1.3 – Hydrometeorological information integrated into land use and production practices, and planning processes to increase resilience of rural communities to address water variability.

- *Output 1.3.1* – Fifteen (15) new Automated Weather Stations (AWS) and Automated Flow Stations (AFS) installed to provide consistent and reliable environmental data in real time in the selected northern SEMUs.
- *Output 1.3.2* – Vulnerability Index, Adaptive Capacity Index developed and supporting the climate early warning and information system, and the Risk Management Plan for Potable Water and Sanitation (RMPPWS).
- *Output 1.3.3* – Information monitoring system for the AyA and ASADAS Management System (SAGA) to track the impact of the adaptation measures aiming to reduce the vulnerability of rural communities to address water variability due to climate change, and articulated to national-level information systems (National System of Water Resources and Hydrometeorological National System).
- *Output 1.3.4* – Climate early warning and information system (CEWS) on climate-related risks and vulnerability of project area water resources generated and disseminated to ASADAS, users, and partners.

Outcome 2.1 – Ecosystem-based climate change adaptation measures are integrated into public and private sector policies, strategies, and investments related to rural community water-sourcing infrastructure and services

- *Output 2.1.1* – Four (4) participatory RMPPWS implemented within each target canton (SEMU 1: Guatuso, Upala, Los Chiles, and La Cruz; SEMU 2: Liberia and Cañas; SEMU 3: Santa Cruz, Nicoya, Hojancha and Carrillo).
- *Output 2.1.2* – AyA and the National Emergency Commission (CNE) investments for the targeted area integrate climate change risks.
- *Output 2.1.3* – Ten (10) livestock and agricultural producing companies adopt a voluntary fee system (Certified Agricultural Products and Voluntary Watershed Payments) to pay for the protection of water resources.
- *Output 2.1.4* – Valuation modeling of ecosystem-based adaptation measures and economic valuation of ecosystem services support the integration of water-related risks and new ecosystems management practices within productive sectors (agriculture and livestock industries).

Outcome 2.2 – The purchasing and credit policies of at least 20 agricultural and livestock trading companies and five (5) financial institutions operating in the target region promote adoption of productive practices that help maintain ecosystem resilience to climate change.

- *Output 2.2.1* – Farmers incorporate ecosystem-based climate change adaptation measures into their production processes, making use of revised purchasing and credit policies of agricultural and livestock trading companies and financial institutions.
- *Output 2.2.2* – Knowledge management system allows disseminating data, information, and toolkits to foster and mainstream ecosystem-based adaptation practices in other water-intensive productive sectors across the country.

The project key national stakeholders include the AyA, MINAE, MAG, MINSALUD, and IMN. At the local level, the most relevant stakeholders are the ASADAS and the municipalities as well as CSOs and local communities. The following table presents a description of the principal stakeholders involved in the project:

Stakeholders	Project Implementation Role
Ministry of Environment and Energy (MINAE)	The MINAE will guide the development of the legal and institutional framework for mainstreaming climate change measures into conscious water management by ASADAS and the productive sector, as well as provide technical and political support for project implementation. Further, the Direction of Water will provide technical expertise, in coordination with the AyA, in mainstreaming climate change impacts on water availability into public and private sector policy, strategies, and investments, as well as providing conditions to upscale successful pilot experiences throughout the country. The MINAE is also the focal point of the GEF.
Institute of Aqueducts and Sewers (AyA)	The AyA is the national public institution in charge of providing technical and financial assistance to improve water management. It will play a key role both at the subregional planning level as well as during field-level activities, particularly those directed towards the capacity-building of ASADAS and the productive sector. Another important

	task by the AyA will be to coordinate lessons learned and pilot experiences at the local level in order to upscale them at the national level, so that ASADAS in other areas can implement successful adaptive measures.
Ministry of Agriculture and Livestock (MAG)	The MAG is the lead institution of the agricultural sector. The MAG will guide the development of an institutional framework for the mainstreaming of climate change measures into the agriculture and livestock sectors, especially in the regulation of private sector practices.
Ministry of Health (MINSALUD)	MINSALUD is charged, inter alia, with monitoring water quality in urban and rural areas through water security plans. MINSALUD will have a key role in analyzing lessons learned from the four pilot ecosystem-based water security plans and in up scaling such experiences into national regulations and policies, with the goal of replicating such models to other ASADAS throughout the country.
Rural Aqueduct Associations (ASADAS)	ASADAS will be responsible for the incorporation of climate change adaptive measures and sustainable use concepts and guidelines into local water management, reducing water vulnerability and improving livelihood conditions.
National Forestry Financing Fund (FONAFIFO)	FONAFIFO executes the country's Payment for Environmental Services Program and will be an important stakeholder in the development of relevant financial mechanisms in ecosystem-based adaptation.
Agricultural production sector	The agroindustry sector, small-, medium-, and large-scale producers, will participate in the implementation of two pilot projects that incorporate the economic valuation of ecosystem-based adaptation measures. Industry members will also be the beneficiaries of innovative sustainable practices aimed at increasing their eco-competitiveness. In particular, the project will liaise with agricultural and livestock commodities producers associations, such as CANAPEP (pineapple), CORFOGA (livestock), and CONARROZ (rice). Consultations for the participation by the private sector were initiated during the project preparation phase.
National Meteorological Institute (IMN)	IMN is the national institution in charge of providing meteorological analysis and weather forecasts to the population of Costa Rica. Its expertise, especially in forecasting present and future climate change impacts and in generating an early warning network in case of weather extreme conditions, will be key in improving ASADAS' technical capacities and community-based monitoring and response systems.
National Women's Institute (INAMU)	INAMU is the lead institution that promotes gender equality as a cross-cutting issue in national and subregional planning, policies, and strategies. It will build capacities inside the AyA, ASADAS, and the agroindustry sector in mainstreaming gender issues in water management and climate adaptation measures.
National Service of Groundwater Irrigation and Drainage (SENARA)	SENARA investigates the aquifers in the country and strengthens capacities at the local government level, ASADAS, and communities. It also provides technical and political support on hydrological decisions, providing oversight on the vulnerability in wells, springs, and protection zones. Additionally, SENARA designs irrigation canals, drainage systems, and supports producers.
National System of Conservation Areas (SINAC)	SINAC is the administrator for the national parks, conservation areas, and other protected natural areas in Costa Rica; it is part of the MINAE. It will play a significant role in the mainstreaming of ecosystem-based adaptation into public and private policies, as many of the water sources on which both sectors depend originate within protected areas under SINAC's jurisdiction.
National Emergency Commission (CNE)	The CNE is the governing agency for risk prevention and emergency management and is responsible for coordination with AyA, the municipalities, and other public entities to monitor the implementation of activities defined in the drought emergency decree for the province of Guanacaste. CNE also plays a major role in climate change adaptation and climate risk management. CNE investments for the targeted area will be updated to integrate climate change risks.
Regulator Authority for Public Services (ARESEP)	ARESEP charged with regulating prices for public services in Costa Rica (water and sanitation, electricity, fuels, and terrestrial, sea, and air transportation). The project will follow ARESEP policies regarding water tariffs, including those that apply to the private sector.
Local governments	Local governments regulate the local territory, grant building permits, and support the wellbeing of the population.
Local commissions	Local commissions comprise public and private organizations, universities, and non-governmental organizations (NGOs).
UNDP	UNDP will act as Implementing Partner as per Direct Implementation Modality (DIM) requested by government.

MANAGEMENT ARRANGEMENTS

The Project has been executed under the Direct Implementing Modality (DIM) as requested by the Government of Costa Rica (GoCR) (Annex 8.2. Agreements) and according to the standards and regulations of the UNDP. This modality of implementation will facilitate communication between sector institutions and in coordination with other UNDP projects, and is also based on UNDP's comparative advantages which include: country presence and relationship between the project and UNDP's country assistance strategies, especially as refers to capacity building, policy development and consensus-building; and UNDP's experience in the implementation of projects of similar scope. In addition, the project will have an advisory committee to ensure a focus on gender and human rights, as well as other cross-cutting issues. The UNDP has identified partners responsible for carrying out project activities.

Total resources required:	31,658,949
Total allocated resources:	31,658,949
• Other:	
○ SCCF	5,000,000
○ Government	13,650,000
○ UNDP	450,000
○ Other	4,808,949
In-kind contributions	
○ Government	7,750,000

Programme Period:	60 months
Atlas Award ID:	00084063
Project ID:	00092255
PIMS #	5140
Start date:	April 2016
End Date	June 2021
Management Arrangements:	DIM
PAC Meeting Date:	18 January 2016

As the rest of the world, Costa Rica has been impacted by COVID-19. The Ministry of Health confirmed the first case of COVID-19 on March 6th, 2020. On 16 March a state of national emergency was officially declared and the country adopted a series of social and economic restrictions, including a nation-wide lockdown and border closure, both of which significantly impacted project activities, especially field activities (workshops and monitoring visits with communities). As of November 7th, 2020 Costa, Rica had reported 116,363 cases with a total of 1,464 deaths due to COVID-19. Since September, the Government implemented a plan to re-open economic activities (including opening the border) in order to recover the economy and employment, especially in the strategic sectors such as tourism and commerce.

3. TE Purpose

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

This TE will be conducted following the M&E framework included in the project document which indicates that TE will take place three months prior to the end date of the project and will look at the impact and sustainability of results, including the contribution to capacity development and the achievement of global environmental goals. The TE should also provide recommendations for follow-up activities and requires a management response, which should be uploaded to PIMS and to the UNDP ERC.

According to the Guidance for conducting Terminal evaluations of UNDP-Supported GEF- Financed projects, this TE must contribute to the following purposes:

- To promote accountability and transparency;
- To synthesize lessons that can help to improve the selection, design and implementation of future UNDP-supported GEF-financed initiatives; and to improve the sustainability of benefits and aid in overall enhancement of UNDP programming;
- To assess and document project results, and the contribution of these results towards achieving GEF strategic objectives aimed at global environmental benefits;
- To gauge the extent of project convergence with other priorities within the UNDP country programme, including poverty alleviation; strengthening resilience to the impacts of climate change, reducing disaster risk and vulnerability, as well as cross-cutting issues such gender equality, empowering women2 and supporting human rights.

DUTIES AND RESPONSIBILITIES

4. TE Approach & Methodology

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

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

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

Engagement of stakeholders is vital to a successful TE15. Stakeholder involvement should include interviews with stakeholders who have project responsibilities, including but not limited to public institutions MINAE, DCC, AYA, senior officials and task team/component leaders, Project Board, project beneficiaries, local government and CSOs, etc. Additionally, the TE must adjust to the context due to COVID-19,, the TE must be developed using virtual sessions with a minimum presential and field visits to Guanacaste and Alajuela, including project sites in Upala, Guatuso, Los Chiles, Liberia, Carrillo, Santa Cruz, Nicoya, Hojancha y Cañas. These field visits must comply with Government and UNDP Country Office sanitary and bio-safety protocols and requirements including. If the Evaluation team and UNDP Country Office deem necessary, they will revise the above approach, in consultation with key stakeholders.

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

The final methodological approach including interview schedule, field visits and data to be used in the evaluation should be clearly outlined in the inception report and be fully discussed and agreed between UNDP, stakeholders and the TE team.
The final TE report should describe the full TE approach taken and the rationale for the approach making explicit the underlying assumptions, challenges, strengths and weaknesses about the methods and approach of the evaluation.

As of 11 March 2020, the World Health Organization (WHO) declared COVID-19 a global pandemic as the new coronavirus rapidly spread to all regions of the world. The Costa Rican government has put in place travel restrictions domestically and internationally depending on the country of departure. These restrictions include that visitors complete the digital health form before boarding and present proof of international medical insurance or purchased from national insurers, which covers eventual long stays due to quarantine or hospitalization expenses in case of contracting the virus.

Due to context could change at any time, TE team must develop a methodology that takes the conduct of the TE totally or partially virtually and remotely, including the use of remote interview methods and extended desk reviews, data analysis, surveys and evaluation questionnaires. This should be detailed in the TE Inception Report and agreed with the Commissioning Unit.

If all or part of the TE is to be carried out virtually then consideration should be taken for stakeholder availability, ability or willingness to be interviewed remotely. In addition, their accessibility to the internet/computer may be an issue as many government and national counterparts may be working from home. These limitations must be reflected in the final MTR report.

If a data collection/field mission is not possible then remote interviews may be undertaken through telephone or online (skype, zoom etc.). International consultants can work remotely with national evaluator support in the field if it is safe for them to operate and travel. No stakeholders, consultants or UNDP staff should be put in harm's way and safety is the key priority.

A short validation mission may be considered if it is confirmed to be safe for staff, consultants, stakeholders and if such a mission is possible within the MTR schedule.

5. Detailed Scope of the TE

The TE will assess project performance against expectations set out in the project's Logical Framework/Results Framework (see TOR Annex A). The TE will assess results according to the criteria outlined in the Guidance for TEs of UNDP-supported GEF-financed Projects http://web.undp.org/evaluation/guideline/documents/GEF/TE_GuidanceforUNDP-supportedGEF-financedProjects.pdf
The Findings section of the TE report will cover the topics listed below.
A full outline of the TE report's content is provided in ToR Annex C.
The asterisk "(*)" indicates criteria for which a rating is required.
Findings

i. Project Design/Formulation

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

ii. Project Implementation

[15] (link to stakeholder engagement in UNDP Eval Guidelines?)

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

iii. Project Results

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

iv. Main Findings, Conclusions, Recommendations and Lessons Learned

- The TE team will include a summary of the main findings of the TE report. Findings should be presented as statements of fact that are based on analysis of the data.
- The section on conclusions will be written in light of the findings. Conclusions should be comprehensive and balanced statements that are well substantiated by evidence and logically connected to the TE findings. They should highlight the strengths, weaknesses and results of the project, respond to key evaluation questions and provide insights into the identification of and/or solutions to important problems or issues pertinent to project beneficiaries, UNDP and the GEF, including issues in relation to gender equality and women's empowerment.
- Recommendations should provide concrete, practical, feasible and targeted recommendations directed to the intended users of the evaluation about what actions to take and decisions to make. The recommendations should be specifically supported by the evidence and linked to the findings and conclusions around key questions addressed by the evaluation.
- The TE report should also include lessons that can be taken from the evaluation, including best and worst practices in addressing issues relating to relevance, performance and success that can provide knowledge gained from the particular circumstance (programmatic and evaluation methods used, partnerships, financial leveraging, etc.) that are applicable to other GEF and UNDP interventions. When possible, the TE team should include examples of good practices in project design and implementation.
- It is important for the conclusions, recommendations and lessons learned of the TE report to include results related to gender equality and empowerment of women.

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

6. Expected Outputs and Deliverables

The TE team shall prepare and submit:

- TE Inception Report: TE team clarifies objectives and methods of the TE no later than *2 weeks* before the TE mission. TE team submits the Inception Report to the Commissioning Unit and project management. Approximate due date: 1st March 2021
- Presentation: TE team presents initial findings to project management and the Commissioning Unit at the end of the TE mission. Approximate due date: 26th March 2021.
- Draft TE Report: TE team submits full draft report with annexes *within 3 weeks* of the end of the TE mission. Approximate due date: 16th April 2021.
- Final TE Report* and Audit Trail: TE team submits revised report, with Audit Trail detailing how all received comments have (and have not) been addressed in the final TE report, to the Commissioning Unit *within 1 week* of receiving UNDP comments on draft. Approximate due date: 30 April 2021

*The final TE report must be in English and Spanish.

All final TE reports will be quality assessed by the UNDP Independent Evaluation Office (IEO). Details of the IEO's quality assessment of decentralized evaluations can be found in Section 6 of the UNDP Evaluation Guidelines.[16]

7. TE Arrangements

The principal responsibility for managing the TE resides with the Commissioning Unit. The Commissioning Unit for this project's TE is UNDP Costa Rica office.
The Commissioning Unit will contract the consultants and ensure the timely provision of per diems and travel arrangements within the country for the TE team. The Project Team will be responsible for liaising with the TE team to provide all relevant documents, set up stakeholder interviews, and arrange field visits.
The Commissioning Unit and Project Team will support the implementation of remote/ virtual meetings. An updated stakeholder list with contact details (phone and email) will need to be provided by the Commissioning Unit to the TE team.

8. Duration of the Work

The total duration of the TE will be approximately 31 working days over a time period of 12 of weeks starting March 1st and shall not exceed five months from when the TE team is hired. The tentative TE timeframe is as follows:

- *1st March 2021:* Prep the TE team (handover of project documents)
- *8th to 11th March 2021*: (4 days) Document review and preparing TE Inception Report
- *12th March 2021: 1* day: Finalization and Validation of TE Inception Report- latest start of TE mission
- *29th March to 11th April 2021: 14* days: TE mission: stakeholder meetings, interviews, field visits
- 12th April 2021: Mission wrap-up meeting & presentation of initial findings- earliest end of TE mission
- 13th April to 19th April *2021: 5* days (5 days): Preparation of draft TE report
- 20th April 2021*:* Circulation of draft TE report for comments
- 27th to 28th April 2021: 2 days Incorporation of comments on draft TE report into Audit Trail & finalization of TE report
- *29th April to 5th May 2021:* Preparation & Issue of Management Response
- *15st May 2021:* Expected date of full TE completion

The expected date start date of contract is March 1st 2021.

9. Duty Station

Costa Rica

REQUIRED SKILLS AND EXPERIENCE

10. TE Team Composition and Required Qualifications

A team of two independent consultants **(ensuring gender balance)** will conduct the MTR - one team leader (with international experience and exposure to GEF projects and evaluations approach) and one team expert, with knowledge and work experience in environmental projects in Costa Rica and/or Latin-American. The team leader will be responsible for the results process, this included overall design, definite and conduct methodological process and writing of the TE report, etc.) The team expert will assess emerging trends with respect to regulatory frameworks, budget allocations, capacity building, work with the Project Team in developing the TE itinerary, etc.). Both, as a team, are responsible to ensure gender perspective in all the TE process. Depending on how the COVID19 context evolves in the country, it may not be required for the Team Leader to travel to the country, and will be able to conduct his/her tasks, remotely.
The evaluator(s) cannot have participated in the project preparation, formulation and/or implementation (including the writing of the project document), must not have conducted this project's Mid-Term Review and should not have a conflict of interest with the project's related activities.
The selection of consultants will be aimed at maximizing the overall "team" qualities in the following areas:

For the National team expert:

Education

- Bachelor's degree (and/or Licenciatura in CR) in evaluation, development, environment, environmental economy, social sciences, engineering, natural resources management, or another closely related field.

Experience

- At least 6 years of professional experience working on the sustainable development process, climate change, or water resource management.
- At least 4 experiences in evaluating projects. It will be considered as a plus if these experiences have been in a GEF evaluation, but it must be specified in the professional profile (CV) provided by UNDP.
- Competence in adaptive management, as applied to water resource management, climate change and ecosystem-based Adaptation;
- At least 5 experiences in evaluating projects. It will be considered as a plus if these experiences have been in a GEF evaluation, but it must be specified in the professional profile (CV) provided by UNDP.

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

- Experience working in Costa Rica and/or Latin-American;
- Demonstrated understanding of issues related to gender and experience in gender responsive evaluation and analysis. Must be specified in the professional profile (CV) provided by UNDP.
- Excellent communication skills;
- Demonstrable analytical skills;
- Project evaluation/review experience within United Nations system will be considered an asset;
- Experience with implementing evaluations remotely will be considered an asset.

Language

- Full fluency in written and spoken Spanish and English.

11. Evaluator Ethics

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

12. Payment Schedule

- 20% payment upon satisfactory delivery of the final TE Inception Report and approval by the Commissioning Unit
- 40% payment upon satisfactory delivery of the draft TE report to the Commissioning Unit
- 40% payment upon satisfactory delivery of the final TE report and approval by the Commissioning Unit and RTA (via signatures on the TE Report Clearance Form) and delivery of completed TE Audit Trail

  Criteria for issuing the final payment of 40%
  - The final TE report includes all requirements outlined in the TE TOR and is in accordance with the TE guidance.
  - The final TE report is clearly written, logically organized, and is specific for this project (i.e. text has not been cut & pasted from other MTR reports).
  - The Audit Trail includes responses to and justification for each comment listed.

In line with the UNDP's financial regulations, when determined by the Commissioning Unit and/or the consultant that a deliverable or service cannot be satisfactorily completed due to the impact of COVID-19 and limitations to the TE, that deliverable or service will not be paid.

Due to the current COVID-19 situation and its implications, a partial payment may be considered if the consultant invested time towards the deliverable but was unable to complete to circumstances beyond his/her control.

APPLICATION PROCESS

The person interest in this consultancy will be evaluated considering his/her profile and expertise in evaluations

Financial Proposal:

- Financial proposals must be "all inclusive" and expressed in a lump-sum for the total duration of the contract. The term "all inclusive" implies all cost (professional fees per day, travel costs, living allowances etc.);
- For duty travels, the UN's Daily Subsistence Allowance (DSA) rates, which should provide indication of the cost of living in a duty station/destination *(Note: Individuals on this contract are not UN staff and are therefore not entitled to DSAs. All living allowances required to perform the demands of the ToR must be incorporated in the financial proposal, whether the fees are expressed as daily fees or lump sum amount.)*
- The lump sum is fixed regardless of changes in the cost components.

13. Recommended Presentation of Proposal

a) **Letter of Confirmation of Interest and Availability** using the template provided by UNDP;
b) **CV** and a **Personal History Form provided by UNDP**;
c) **Brief description of approach to work/technical proposal** of why the individual considers him/herself as the most suitable for the assignment, and a proposed methodology on how they will approach and complete the assignment. This description must be including a brief description of how will include the gender perspective in the TE; (max s pages)
d) **Financial Proposal** that indicates the all-inclusive fixed total contract price and all other travel related costs (such as flight ticket, per diem, etc.), supported by a breakdown of costs, as per template attached to the Letter of Confirmation of Interest template. If an applicant is employed by an organization/company/institution, and he/she expects his/her employer to charge a management fee in the process of

releasing him/her to UNDP under Reimbursable Loan Agreement (RLA), the applicant must indicate at this point, and ensure that all such costs are duly incorporated in the financial proposal submitted to UNDP.

e) **Copy of university degrees and the necessary proofs to demonstrate the requested qualifications.**

f) **Declaration of good health**, using the template provided by UNDP.

All application materials should be submitted by email at the following address ONLY adquisiciones.cr@undp.org indicating in the subject **"Consultant for National Team Expert TE ASADAS"** by **14th February of 2021**. Incomplete applications will be excluded from further consideration.

14. Criteria for Selection of the Best Offer

Only those applications which are responsive and compliant will be evaluated. Offers will be evaluated according to the Combined Scoring method – where the educational background and experience on similar assignments will be weighted at 70% and the price proposal will weigh as 30% of the total scoring. The applicant receiving the Highest Combined Score that has also accepted UNDP's General Terms and Conditions will be awarded the contract.

Offer		Maximum score	Providers				
			A	B	C	D	E
1.	Technical proposal	1000					
2.	Financial proposal	300					
	Total	1300					

First stage: Technical proposal evaluation (1000 points)

#	Profile required and technical proposal		
	Profile required	**Providers Meets or does not meet** (If the profile does not meet at least one of the minimum requirements, this won't be evaluated, and the offer will be discarded)	**Evaluation criteria**
1	(Admissibility requirement) bachelor degree (and/or Licenciatura in CR) in evaluation, development, environment, environmental economy, social sciences, engineering, natural resources management, or another closely related field.		Doctorate or similar: **200 pts** (Licenciatura CR) / Master's degree: 175 pts
2	At least 6 years of professional experience working on the sustainable development process, climate change, or water resource management.		More than 10 years: **100 pts** between 7 and 10 years : 50 pts
3	At least 4 experiences in evaluating projects. It will be considered as a plus if these experiences have been in a GEF evaluation, but it must be specified in the professional profile (CV) provided by UNDP.		More than 7 experiences: 30**0 pts** More than 4 and less than 7 experiences: 180 pts
4			The person included evidence (could be certified or documents related) that demonstrated understanding of issues related to gender and experience in gender-responsive evaluation and analysis. Evidence included: 50
5			The person included evidence (could be certified or documents related) that demonstrated understanding of experience applying SMART indicators and reconstructing or validating baseline scenarios Evidence included: 50

#	Profile required and technical proposal		
	Profile required	**Providers** **Meets or does not meet** (If the profile does not meet at least one of the minimum requirements, this won't be evaluated, and the offer will be discarded)	**Evaluation criteria**
6			The person included evidence (at least mention it in the previous work experiences) that demonstrated experience working in Costa Rica and/or Latin-American Evidence included: 25 pts
7			The person included evidence (at least mention it in the previous work experiences or attached examples of documents wrote by him/her) that demonstrated excellent communication skills Evidence included: 25 pts
8			The person included evidence (at least mention it in the previous work experiences or attached examples of documents wrote by him/her) that demonstrated analytical skills Evidence included: 25 pts
9			The person included evidence (at least mention it in the previous work experiences) that demonstrated project evaluation/review experience within United Nations system Evidence included: 25 pts
10			The person included evidence (at least mention it in the previous work experiences) that demonstrated experience with implementing evaluations remotely Evidence included: 25 pts
	Technical proposal		
	The proposal includes a proposed methodology on how they will approach and complete the assignment		
6			Exceeds expectations: **100 points** Wide approach: 90 points Proposal for improvement: 75 pts
7			The proposal includes a description of how will include the gender perspective in the TE Exceeds expectations: **100 points** Wide approach: 90 points Proposal for improvement: 75 pts
8			The proposal includes information on knowledge, services, initiatives or work methods that demonstrate knowledge and experience in issues of promoting human rights, gender equality and empowerment of women and girls, prevention of sexual harassment and the 2030 agenda for sustainable development. Exceeds expectations: **100 points** Wide approach: 90 points Proposal for improvement: 75 pts
	Total		**1000 pts**

Second stage: Financial proposal evaluation (1000 points)

In this II stage, only those offers whose technical qualification (stage I) has reached at least 700 of the 1,000 possible points will participate. The offer that presents the lowest price will obtain a qualification of 300 points and will be considered the base offer, the remaining offers will be awarded the corresponding points, after applying the following formula:

$$PFP = \left(\frac{POMB}{PO} \right) * 300$$

Where:

PFP = Puntaje factor precio.
POMB = Menor precio ofertado
PO = Precio de la oferta a calificar.
300 = Puntaje máximo para el factor precio.

Women and people with disabilities are invited to submit their offers

Anexo 14. UNDP-GEF MTR Report Audit Trail Template

Note: The following is a template for the MTR Team to show how the received comments on the draft MTR report have (or have not) been incorporated into the final MTR report. This audit trail should be included as an annex in the final MTR report.

To the comments received on (*May 5th, 2021*) from the Midterm Review of (Proyecto Fortalecimiento de las Capacidades de Asociaciones de Acueductos Rurales (ASADAS) para enfrentar riesgos del Cambio Climático en comunidades con estrés hídrico en el Norte de Costa Rica (PNUD ID: 5140; GEF ID: PIMS# 6945)

The following comments were provided in track changes to the draft Midterm Review report; they are referenced by institution ("Author" column) and track change comment number ("#" column):

Author	#	Para No./ comment location	Comment/Feedback on the draft MTR report	MTR team response and actions taken
Claudia Ortiz	1	Iii	Sobre diagnósticos de género: Si, idealmente, pero el problema es q estos diagnósticos son caros y no siempre hay fondos para preparación de proyecto. Más bien el primer año del proyecto debe de ser previsto como arranque y análisis de base y diagnóstico deben tener cabida ahí.	Comentario incluido en el reporte.
Karen Araya	2	6	En total se apoyaron los procesos de integración o fusión: -17 procesos de integración en la Región Huetar Norte -18 procesos de integración en la Región Chorotega	Comentario incluido en el reporte.
Karen Araya	3	5	ASADA de San Carlos	A pesar que se reportó una ASADA de San Carlos en la base de indicadores, se ajustó este dato/gráfico.
Claudia Ortiz	4	12	Incluir FLU en partes interesadas.	Se incluye. No se había hecho dado que no fueron parte de la identificación en el ProDoc.
Claudia Ortiz	5	22	Creo que aquí vale la pena ser más específicos. Por lo menos mencionar cuáles son esos grupos indígenas. Este tema lo abordamos varias veces en el 2019, cuando estábamos armando la nueva propuesta. Al final, este es el extracto de lo que pusimos en el análisis de salvaguardas para la propuesta GCF (la cual, se descontinuó): "The baseline Project (ASADAS Project) is currently undertaking ecosystem-based adaptation activities for the protection of the biological corridor of the Malecu indigenous group. Further, the consultations, workshops and trainings carried out by the project have included these groups and incentivized their participation in the activities."	Se tomó en cuenta el comentario y se hizo alusión específica al territorio/grupo indígena donde opera el Proyecto.
Claudia Ortiz	6	27	Variaciones presupuestarias: poner comentarios en aquellas líneas cuyas deltas son mayor a 100,000	A la espera de la información.
Gerardo Cuadra	7	11	Elaboración del mapa de riesgos climáticos que es un producto importante del proyecto	Se incorpora la información.
Gerardo Cuadra	8	12	INDER financió algunos de los proyectos a ASADAS a partir de los estudios técnicos desarrollados por el Proyecto. Se utilizó el Programa Nacional de Empleo del Ministerio de Trabajo (PRONAE) para financiar mano de obra local en trabajos requeridos por las ASADAS	Se incorpora la información.
Jairo Serna	9	12	El PNUD tiene un convenio de colaboración con el TEC que facilitó el desarrollo de la aplicación AppEsticidas, con el cual se da acceso a gestores y gestoras del agua a información sobre pesticidas y otros usado en los principales productos cultivados en la región del proyecto, También con ellos se desarrolló el diseño de la aplicación SiembrAPP que busca ampliar el registro digital de árboles sembrados al tiempo que brinda recomendaciones de especies nativas a ser sembradas	Se incorpora la información.

Jairo Serna	10	12	Aunque podo creo que vale la pena destacar que en los comités del corredor Biológico Ruta de los Maleku, y de gestión ambiental de los cantones de Upala y Los Chiles hay una nutrida participación del sector agroindustrial, con la cual coordinamos movilizaciones locales, cantonales y el encuentro territorial por el agua, en esto eventos se ofrecieron stands y charlas con información acerca de técnicas y productos amigables con el agua para su uso por parte del sector productivo. Principalmente el piñero. En este particular creo que vale destacar el trabajo conjunto con GIZ con uno de los principales formadores de opinión y productor de piña Upala agrícola, la cual opera en más de 20000 hectáreas en los Cantones de Upala Guatuso y los Chiles con la cual se desarrollaron actividades de capacitación y se inició el proceso de cálculo de la huella hídrica. También creo importante mencionar que en el marco del apoyo a Fundecooperación con la iniciativa Tu-MoDeLo, se tuvo una intensa interacción a raíz del mapeo de oferta y demanda de productos sostenibles, así como la identificación de un conjunto de pautas a ser seguidas tomadas en cuenta en áreas que abarcan trabajadores, suelos, diversidad y agua. Para más detalle ver el informe final del mapeo hecho para Tu-MoDeLo.	Se incluye el tema del sector privado, puesto que abajo en el informe se desarrollan varios de los aspectos mencionados.
Claudia Ortiz	11	13	Creo que hay que resaltar que los tracking tools no se realizaron durante esta evaluación, lo cual es clave para la EMT. De ahí que, se perdió una oportunidad de capacidad adaptativa	Se incorpora la aclaración.
Karen Araya	12	14	Esta es la métrica del Plan Nacional de Desarrollo?	Sí, la información corresponde al PND y los datos los corroboró la DCC.
Gerardo Cuadra	13	14	Estrictamente hablando, al mejorar el acceso y la calidad de los servicios de agua potable, se contribuye a los indicadores de desarrollo humano, por ende a los objetivos 1 y 3. Y como el proyecto abordó de manera importante la reducción del agua no contabilizada y la medición, también le abona al objetivo 12.	Se incorpora la aclaración y se hacen los ajustes necesarios.
Jose D. Estrada	14	14	Cuáles de los criterios SMART hicieron falta?, por favor especificar	Se brindan ejemplos
Claudia Ortiz	15	15	Yo propuse por lo menos el trabajar con un socio privado, Cultivo, una consultoría privada que buscar detonar inversión en capital natural, a escala. La idea era que los dueños de tierras en las que se estaba llevando a cabo restauración pudieran poner en un mercado de carbono las emisiones reducidas (secuestradas) gracias a la restauración y de esa forma tener un mecanismo de financiamiento para la restauración misma y medidas AbE. Sin embargo, no se logró cerrar la alianza dada la escala de los lotes (muy pequeños) y la gobernanza en CR relacionada a los mercados de carbono. También durante los meses que se buscó preparar una propuesta para GCF, propuse buscar asociación con las hoteleras, hasta que finalmente se logró que en Guanacaste se tuvieran acercamientos, pero no llegaron a profundizar en cómo colaborar. Aunque tarde, también propuse asociarnos con Agua Tica (fondo de agua, una iniciativa de The Nature Conservancy, FEMSA, y otros), quienes están también explorando la implementación a escala de la Tarifa. Pero definitivamente creo que se pudieron haber explorado más frentes en este tema (alianzas con el sector privado).	Comentario incluido en el reporte en una nota al pie.
Jairo Serna	16	16	Varios elementos clave, sobre todo el desarrollo de herramientas e información para prevenir la contaminación de fuentes de agua provino del proyecto “Plataforma Nacional de Producción y Comercio Responsable de Piña en Costa Rica” que si bien no fue financiado por el GEF, genero experiencias y metodologías de planificación de encuentros y talleres que fueron posteriormente aplicadas en el proyecto y en la	Se incorpora esta explicación e información.

			generación de proceso y herramientas como las del pilotaje del sistema PMR	
Karen Araya	17	17	Con la Subcomisión de Agua y Saneamiento del CONARE (CAS-CONARE) que involucra la participación de las 4 universidades, se promovió la campaña Actuemos por el Agua y se realizó un curso sobre biojardineras	Se incorpora esta explicación e información.
Gerardo Cuadra	18	17	mediante el desarrollo del levantamiento topográfico y "*Actualización del Mapa de Amenazas Naturales para los distritos impactados por procesos asociados al Huracán Otto, y propuesta de zonificación al uso de suelo"* que sirve de base para la elaboración del Sistema de Alerta Temprana para eventos hidrometeorológicos de Upala	Se incorpora esta explicación e información.
Jairo Serna	19	17	Falta agregar al instituto Tecnológico de Costa Rica, quien apoyo en el diseño y programación de aplicaciones para poner a disposición la información sobre especies y pesticidas desarrollada por el proyecto.	Se incorpora esta información.
Karen Araya	20	17	DCC no cuenta con personal para ejecución, por tanto, su rol está dirigido a alinear esfuerzos con los compromisos país a nivel nacional e internacional.	Se toma en cuenta el comentario y se ajusta la redacción.
Karen Araya	21	17	En este primer semestre del 2021, Fundación AVINA está apoyando a la Unión de Acueductos Norte Norte UANN en la creación de su Centro de Sostenibilidad, aprovechando los aprendizajes obtenidos con la LCA y se alinea a las acciones de salida del proyecto. Se espera que esto permita brindar sostenibilidad a las iniciativas impulsadas con la UANN por el proyecto en los 5 años de ejecución del mismo.	Se anota como referencia en pie de página
Jairo Serna	22	18	Con Biofin estamos también trabajando en torno a la iniciativa huella del futuro la cual pretende recaudar cerca de dos millones de dólares para garantizar la siembra y mantenimiento por 5 años de 200.000 árboles. Vale destacar que gracias a este trabajo se está dotando al convenio CTP Upala-Municipalidad de Upala, para consolidación de infraestructura verde del cantón con EUR 10.000 para fortalecer el vivero del CTP y hacerlo proveedor de un monto considerable de árboles y especies ornamentales nativas, las cuales se dedicaran a zonas de protección en cultivos, sistemas agroforestales y zonas de importancia clave para agua y comunidades.	Se incorpora esta explicación e información.
Claudia Ortiz	23	22	El problema fueron dos cosas principalmente: por un lado, la meta era muy ambiciosa, pero por el otro lado creo que faltó una estrategia bien planeada de cómo se abordaría esa actividad: entender el tipo de expertise requerido y haber contratado a un consultor desde un inicio para empezar por un mapeo de actores privados, elaborar un mecanismo de abordaje efectivo, darle seguimiento, etc. Para cuando se quiso contratar a un experto en temas financieros, por ejemplo, ya se estaba iniciando el último año del proyecto.	Se incluye nota al pie con esta explicación.
Gerardo Cuadra	24	27	No entiende: De forma general, el proyecto desde el año 2019 ha venido ejecutando aproximadamente el 85% de los recursos correspondientes al programa de trabajo.	Se cambia redacción para mejor interpretación de la información.
Jairo Serna	25	30	creo que el visor PRIORIZA es una herramienta a ser mencionada ver en: https://aya-lna.shinyapps.io/fuentes-cultivos/ esta herramienta la presentamos en eventos internacionales facilitados por el Green Commodities Programme del PNUD.	Se incorpora esta explicación e información.
Jairo Serna	26	30	Acá se puede mencionar mas sobre el desarrollo conjunto y pilotaje del sistema de Prevención, Monitoreo y respuesta a incidentes con agroquímicos en fuentes de agua, que integro: Prevención con las actividades de infraestructura verde en zonas de protección, las movilizaciones locales cantonales y territoriales por el agua (que se coordinaron en espacios de articulación intersectorial) y el desarrollo de herramientas geoespaciales para priorizar fuentes amenazadas (PRIORIZA)	Se incorpora esta explicación e información.

			Monitoreo, con el fortalecimiento de la LNA , con personal, equipos, insumos y estudios para ampliar el espectro de sustancias que puede detectar (así como el monitoreo de fuentes en ASADAS amenazadas por proximidad de piña) Respuesta, la cual se está consolidando con el fortalecimiento del SIG ADAS de la ORAC HN y el desarrollo de procedimientos de respuesta ante emergencias incluyendo contaminación de fuentes.	
Karen Araya	27	31	Además, con base en lecciones aprendidas y mejores prácticas, el Proyecto ha implementado una iniciativa piloto con la Liga Comunal del Agua y la Unión de Acueductos Norte Norte en el desarrollo de un modelo de asistencia recíproca entre ASADAS afectadas por emergencias y desastres, bajo el liderazgo de dichas FLU.	Se incorpora esta explicación.
Jairo Serna	28	32	No me queda claro, recuerden que las 5 fuentes de la iniciativa de TPRH están Muy próximas al PN Volcán tenorio y que en parte por ello fueron escogidas, para ser manejadas a través de planes de conservación, en donde se usa información ecológica y de riesgo para establecer acciones de manejo dirigidas a la restauración.	La tabla retoma los planteamientos del ProDoc, no es una interpretación de la evaluación.
Gerardo Cuadra	29	34	Este calificativo puede entrar en conflicto con el título del apartado…	Se ajusta a altamente satisfactorio
Jose D. Estrada D. Estrada D. Estrada	30	34	Aportar evidencia (puede ser indicador u otra que demuestre esta afirmación)	Se hace alusión al anexo de indicadores, y el informe como tal presenta evidencia a lo largo del análisis.
Jairo Serna	31	34	El tema de generación de espacios de dialogo entre dependencias institucionales, entre instituciones y entre sectores a nivel local es clave, fruto del proyecto dependencias del mismo AyA que no se hablaban están coordinando. También los espacios a nivel cantonal y de cuenca/corredores biológicos se están nutriendo con la participación de ASADAS, gracias a la mediación del proyecto	Se incorpora esta explicación.
Gerardo Cuadra-Karen Araya	32	36	Se desarrolló el estudio *"Descripción de riesgo ante eventos hidrometeorológicos extremos en el norte de Costa Rica. Cantones de La Cruz, Nicoya, Hojancha, Liberia, Carrillo, Cañas, Santa Cruz, Guatuso, Los Chiles y Upala"* por parte del IMN como insumo del Proyecto. Este fue divulgado entre ASADAS, Municipalidades y otras organizaciones de interés en las zonas del proyecto Con base en este estudio se desarrollaron mapas de riesgo y vulnerabilidad ante eventos extremos secos y lluviosos de los 10 cantones del proyecto. Además, se ha articulado con el PRIAS-CENAT para compartir información y alertas hidrometeorológicas en tiempo real a las ASADAS por región	Se incorpora esta información.
Gerardo Cuadra	33	36	En PIR 2019 (pag.4) se estableció un ajuste decreciente al universo de ASADAS por intervenir, con relación a la cifra original de ProDoc, principalmente debido a la confirmación en terreno de la cantidad real de ASADAS existentes, así como a diversos procesos de integración	Se incorpora esta explicación.
Gerardo Cuadra	34	37	y se les brindaba acompañamiento técnico para la instalación, uso, manejo, mantenimiento o lo que corresponda según los elementos intervenidos, incluyendo la participación en sesiones de capacitación y la elaboración de guías y tutoriales	Se incorpora esta información.
Gerardo Cuadra	35	38	Se realizó un estudio de comportamiento en el uso del agua en las zonas del Proyecto (IDESPO) para orientar los contenidos de una campaña de uso racional del agua. Pero más que promover el ahorro en el consumo de agua de manera tradicional, por recomendación de la RTA se pensó en promover la participación y el compromiso de la comunidad con la protección del recurso, más acorde con los conceptos de adaptación (Campaña "Actuemos por el agua" que incluyó una canción temática de Malpaís) y se escaló con la campaña "Sumá tu Gotita" con alcance a nivel nacional	Se incorpora esta información actualizada.

			Apoyo a organización y desarrollo de V Conferencia Latinoamericana de Saneamiento (LATINOSAN San José 2019), mediante apoyo técnico especializado para producción de materiales y metodologías, movilización de especialistas internacionales y personas de las ASADAS, sesión técnica sobre manejo de lodos fecales, ponencia sobre servicios ecosistémicos para la seguridad hídrica, y organización de foro especializado sobre diseño, construcción y operación de reactores UASB para tratamiento de aguas residuales urbanas.	
Karen Araya	36	39	Proyecto de eco-saneamiento ejecutado con la Unión de Acueductos Norte Norte y el Corredor Biológico Ruta Los Maleku, consistente en la construcción de humedales artificiales (biojardineras) para el tratamiento de aguas grises con el fin de mejorar calidad del agua vertida. Se construyeron dos biojardineras piloto demostrativas en 2 escuelas públicas (Escuela San Francisco de Los Chiles y Escuela Chimurria de Upala). Se realizó un curso de capacitación en esta tecnología en la que participaron 40 ASADAS, a través de una colaboración con la Subcomisión de Agua y Saneamiento del CONARE (participación de UTN, UNA, UCR y TEC). -Articulación con la ASADA San Rafael de Guatuso y socios para la búsqueda de financiamiento al proyecto de Saneamiento Ambiental del Distrito San Rafael de Guatuso	No se contaba con la información de productos como tal revisada por el equipo por lo que estas inclusiones resultan clave para poder completar el informe. Se incorporan los datos.
Jairo Serna-Gerardo Cuadra	37	40	Se validó la metodología de la "Guía para elaborar e implementar planes modelos para la protección de fuentes y áreas de recarga para operadores comunitarios desarrollado por el SICA, agregando elementos de monitoreo de calidad ecosistémica, a través de el pilotaje en 5 ASADAS participantes en el proceso de implementación de la TPRH. Y varios aportes a estos productos	Se incorpora esta información actualizada.
Varios	38	42	Ajustes a la sección de productos: en este informe borrador se incorporan algunas actualizaciones de datos, información y productos por parte del equipo del Proyecto	Se incluyen datos e información actualizada por parte del equipo. Hasta el momento del informe había algunos datos o información específica que no se había logrado revisar con el equipo técnico, así que se incorporan los ajustes.
Grerado y Karen Araya	39	46	En realidad, el SAT tiene 4 componentes: 1. Conocimiento del riesgo, cuyo elemento principal es la actualización del mapa de amenazas y levantamiento topográfico a partir del huracán Otto (UCR-CNE) 2. Monitoreo y definición de alertas basado en el conocimiento del riesgo (incluye la instalación de instrumentos y mecanismos de vigilancia como el mencionado) 3. Difusión y comunicación de alertas y medidas de acción 4. capacidad local de respuesta (preparación de las comunidades) para actuar ante las alertas. Este esquema definido por el proyecto y basado en estándares de OMM está siendo replicado por el IMN en el desarrollo de un SAT en Nosara, y que fue asesorado por nuestro proyecto en su fase de formulación. Se conformaron 5 Comité Comunales de Emergencias en las zonas más afectadas por el Huracán Otto y desarrollaron sus respectivos Planes de Emergencia a través de procesos de construcción participativa	Se incorporan comentarios en el producto.
Claudia Ortiz	40	46	Sí, pero también se pudo haber hecho un abordaje más proactivo desde un inicio. La cuestión es que, como creo es debido, se dio prioridad a los primeros componentes.	Se incorpora comentario en el reporte.
Gerardo Cuadra	41	46	Otro alcance importante es que la la Junta Directiva de la CNE ha establecido "*la incorporación de metodologías desarrolladas por el PNUD y el Instituto Costarricense de Acueductos y Alcantarillados para la Gestión Integral del Riesgo en Asadas (GIRA) en Sistema rurales de abastecimiento de agua"* como requisito para financiar la mejora de acueductos en un decreto de emergencia para el sur del país en el contexto de la pandemia COVID-19	Se incorpora información al reporte.

Gerardo Cuadra - Jairo Serna	42	47	El Proyecto participó y apoyó el diseño de la Tarifa en coordinación con otros actores (CEDARENA; Fundecooperación, GIZ…) recaudación de fondos a nivel nacional tratando de abarcar a la sociedad general pero de manera especial al sector empresarial y productivo, la cual se esta consolidado con la iniciativa huella del futuro. Que esta enfocada en la siembra de 200. Árboles incluyendo sistemas productivos convencionales y sistemas agrosilvopastoriles	Se incorpora información al reporte.
Gerardo Cuadra – Jairo Serna	43	47	En el caso del Proyecto, se trata de 5 ASADAS en TNN Creo que también habría que plantear el inicio del proceso con la LCA como oferente de los servicios de acompañamiento en la implementación de la TPRH para sus afiliados.	Se incorpora información al reporte.
Jairo Serna	44	47	una mesa de trabajo conjunto entre la ORAC y las ASADAS del TNN a nivel local y una mesa de trabajo a nivel nacional con autoridades del AyA y ARESEP, la cual usara como base la iniciativa del TNN y otras auspiciadas por socios para el desarrollo de una hoja de ruta que permita a esta y otras ASADAS tener la orientación y acompañamiento en cada parte del proceso por parte de técnicos del AyA y ARESEP.	Se incorpora información al reporte.
Gerardo Cuadra	45	47	El banco incluye a las ASADAS en la categoría de “empresas de economía social” con los cual pueden financiarlas mediante el fondo de avales para MIDEPYMES. Se amplía además a créditos para actividades no tradicionales, como planes de manejo, protección de fuentes (porque para lo clásico, como infraestructura, compra de vehículos y materiales, ya financian)	Se incorpora información al reporte.
Gerardo Cuadra	46	49	En la celebración de la Semana Global de Acción por los ODS (2019), liderada por el Gobierno de la República, la Defensoría de los Habitantes, las Organizaciones de la Sociedad Civil, el sector privado, el Poder Judicial, los gobiernos locales, y Naciones Unidas, el AYA fue seleccionado como una de las instituciones con mayor aporte a los avances de los ODS en el país, debido a la implementación del Proyecto el cual fue escogido como una de tres experiencias que impulsan exitosamente los ODS en Costa Rica. Para la celebración del Día de las Naciones Unidas (2019), el Proyecto ha sido distinguido por la gerencia como la iniciativa estrella del PNUD Costa Rica, destacándose entre más de 25 proyectos que forman las carteras de Desarrollo Sostenible y Desarrollo Humano de la organización. ONU Costa Rica publicó un documento conteniendo el logro estrella de cada agencia, asociado a una historia de vida sobre el impacto al desarrollo de estos proyectos. Este material fue entregado a autoridades nacionales e internacionales como informe de resultados de la ONU en el país.	Se incorpora información al reporte.
Gerardo Cuadra	47	50	Se desarrollaron acciones concretas para mejorar el reconocimiento del papel de las mujeres en la GCA, y de aumentar su participación tanto en las actividades y oportunidades (por ejemplo la capacitación), así como la participación empoderada en los espacios de toma de decisión.	Se incorpora información relevante al reporte.
Jose D. Estrada D. Estrada D. Estrada	48	51	Hasta cierto punto esto es contradictorio, porque realmente el proyecto no tiene la culpa del diseño del proyecto, entonces sería injusto. Además, a diferencia de la MTR, en la TE en la calificación debe sopesar más los resultados que el diseño del mismo proyecto. Quizá vale la pena incluir acá, el hecho de que no se pudieron completar totalmente algunos productos y que tampoco se alcanzaron las metas de algunos indicadores, como respaldo o justificación de la calificación final de la evaluación	Se incorpora el cambio en la redacción del reporte. Y se califican los resultados del proyecto como altamente satisfactorios. Por temas de “diseño” o de implementación con base en el MdR se dejan la eficacia y eficiencia como satisfactorios.
Gerardo Cuadra	49	51	Es importante el hecho de que la entidad ASADAS no tenían en su agenda la visión sobre CC (ni siquiera el mismo AYA), y mucho menos la adaptación, y sus prioridades están relacionadas con necesidades más tangibles como la infraestructura básica para prestar sus servicios. Por esa razón la estrategia del Proyecto fue iniciar un abordaje de “adaptación basada en infraestructura”	Se incorpora el cambio en la redacción del reporte.

			como clave para abrir puertas y potenciar los diálogos sobre otras medidas de adaptación	
Gerardo Cuadra	50	51	Pero adoptando de manera definitiva la visión de resiliencia de los sistemas (adaptación basada en infraestructura)	Se incorpora el cambio en la redacción del reporte.
Gerardo Cuadra	51	52	Mejorar alianzas estratégicas para maximizar acceso y aprovechamiento de fondos públicos disponibles para infraestructura comunal (FODESAF, INDER, PRONAE, Municipalidades…)	Se incorpora el cambio en la redacción del reporte.
Gerardo Cuadra	52	53	El Proyecto ha sido objeto de varios reconocimientos relacionados con su enfoque de perspectiva de género: 1.Los resultados emblemáticos del proyecto ASADAS como ejemplo de buena práctica regional en perspectiva de género en proyectos de ambiente y fondos verticales han sido reconocidos en la publicación "De las Palabras a la Acción: Proyectos con Soluciones Innovadoras para Enfrentar el Cambio Climático y Promover la Igualdad de Género", hecha por el Grupo Interagencial de Género regional integrado por PNUD Regional, ONU Mujeres y ONU ambiente. Esta publicación fue presentada mediante un Webinar para América Latina y el Caribe. 2. El proyecto fue seleccionado como una de las experiencias de éxito para participar en el evento paralelo "De las palabras a la acción: proyectos con soluciones innovadoras para enfrentar el cambio climático y promover la igualdad de género", realizado durante la 25 Reunión Preparatoria (PreCOP25) a la Conferencia de las Partes de la Convención Marco de las Naciones Unidas para el Cambio Climático (COP25), incluyendo la participación de una de gestora comunitaria de TNN.	Se incorpora la información en la redacción del reporte.
Gerardo Cuadra	53	55	Esto ha contribuido a un mejor posicionamiento de la oficina de género de AYA, con mejores y mayores capacidades y musculo político	Se incorpora la información en la redacción del reporte.
Jose D. Estrada	54	55	Consulta sobre las herramientas para que las mujeres tengan más herramientas y capacidades en la GCA	Se brindan ejemplos
Jose D. Estrada	55	59	Considero que se debe incluir como hallazgo la importancia de incluir la perspectiva de género dentro de la GCA. El proyecto demostró cuán importante es y es algo que no estaba incluido específicamente en el diseño, por lo que vale la pena que quede acá como un hallazgo.	Se incorpora un hallazgo adicional: El Proyecto es pionero en la incorporación del enfoque de género en intervenciones en la gestión comunitaria del agua y proyectos similares
Jose D. Estrada	56	60	o acciones de gestión del conocimiento. Me parece que una campaña es muy diferentes	Llevar a cabo acciones para poder difundir con las ASADAS del proyecto y a nivel nacional, la información, conocimiento y todo el "set" de herramientas que deja el proyecto disponible para su gestión.
Jairo Serna	57	60	con términos de referencia claros y adaptables a la condición de las ASADAS	Se incopora: El esquema de gestión del recurso hídrico debe transcender lo local/comunitario. Es necesario que el país lleve a cabo estudios hidrogeológicos e hídricos a nivel nacional (y con términos de referencia claros y adaptables a la condición de las ASADAS) para entender la disponibilidad real del agua
Jose D. Estrada	58	60	Desde una perspectiva de gestión basada en resultados no me parece que esto sea coherente. Cuando se formulan proyectos se establece una teoría de cambio y se hace con el fin de que cuando se implementen las acciones del proyecte se cumpla o no con lo establecido en la teoría de cambio. Si nada más arrancando se modifica el diseño del proyecto, no se dejaría espacio para demostrar la teoría propuesta inicialmente.	Los Marcos de Resultados de los Proyectos deberían diseñarse de manera más realista a los alcances del Proyecto (tanto de tiempo como de recursos financieros y humanos), de forma tal que se logre también cumplir con lo establecido en la Teoría de Cambio. Los diseños deben

				cumplir con las normas de los donantes/fondos existentes, pero deben ser realistas y contextualizados.
Jose D. Estrada	59	60	Por su redacción, esto me parece más una recomendación que una lección aprendida. Sugiero desarrollar un poco más la idea indicando qué incluyó el proyecto en su diagnóstico de género y que se pueda replicar en otras intervenciones del PNUD, qué elementos es importante considerar cuando se trabaja con mujeres en sectores no tradicionales, como lo es la GCA, etc.	Sea justó para que quedara como una lección aprendida.
Jose D. Estrada	60	60	Lecciones aprendidas: Se plantean algunos comentarios para ampliar las explicaciones/lecciones planteadas	Los comentarios se toman en cuenta para explicarlos de formas más integral, peor muchos de los argumentos se han planteado a lo largo del informe.
Jose D. Estrada	61	60	Lección 4 Creo que Gera indicó atrás que en realidad si se habían hecho donaciones. Yo creo que acá la lección puede ser qué tipo de donaciones pueden ser estratégicas y en qué sectores. Como es una lección aprendida hay que decir el porqué esta acción es una lección aprendida.	No coincidimos con este comentario. Lo que indicaron Gerardo y otras personas del equipo es que no se trabajó bajo la idea de "donación" (entendida como regalos o asistencialismo). Se promovió la co-inversión. Las ASADAS pusieron como contrapartida recurso humano, equipo e incluso en casos recursos financieros. Creemos que este es un enfoque y valor agregado claro del Proyecto y debe ser resaltado. El componente de acompañamiento técnico lo hace un elemento también diferenciador (que trasciende la idea de una donación). Claudia Ortiz mencionó al inicio del documento que los materiales fueron donados, lo cual es cierto, pero la estrategia seguida no fue la de regalar o buscar un asistencialismo/dependencia con las ASADAS. Se ajusta para que se entienda mejor la idea.
Jairo Serna	62	85	Falta la herramienta PRIORIZA y las aplicaciones APPesticidas y SiembrAPP que estaban en el correo explicativo remitido sobre este apartado.	Se incorpora en el apartado de productos.

Anexo 15. Tracking Tool

Project identification						
Project title:	Strengthening Capacities of Rural Aqueduct Associations' (ASADAS) to address climate change risks in water stressed communities of Northern Costa Rica					
Country:	Costa Rica			GEF project ID:		
GEF Agency:	UNDP			Agency project ID:	5140	
Implementing partner:	UNDP			Council/ CEO Approval date:	3-Sep-14	
Project status at submission:				Tool submission date:		
Project baselines, targets and outcomes						
Indicator	**Unit of measurement**	**Baseline at CEO Endorsement**	**Target at CEO Endorsement**	**Actual at mid-term**	**Actual at completion**	**Comments (e.g. specify unit of measurement)**
Objective 1: Reduce the vulnerability of people, livelihoods, physical assets and natural systems to the adverse effects of climate change						
	number of people	0	10,000	28,428	51,198	5,000 households (assumef 4 persons per household)
	% female			48	48	
Indicator 1: Number of direct beneficiaries	vulnerability assessment (Yes/No)	No	Yes	no	no	(if a vulnerability assessment has been carried out for the targeted population, please describe)
Outcome 1.1: Vulnerability of physical assets and natural systems reduced						
Indicator 2: Type and extent of assets strengthened and/or better managed to withstand the effects of climate change	ha of land	0.00	275.00	0.00	2.6	hectares of water sources and associated aquifer recharge areas protected and/or rehabilitated
	km of coast					
	km of roads					
Outcome 1.2: Livelihoods and sources of income of vulnerable populations diversified and strengthened						
Indicator 3: Population benefiting from the adoption of diversified, climate-resilient livelihood options	n. of people				245,000	
	% of targeted population					
Outcome 1.3: Climate-resilient technologies and practices adopted and scaled up						
Indicator 4: Extent of adoption of climate-resilient technologies/ practices	N. of households equipped with micro-meters (water use measurement)	0.00	4,000.00	9,180	10,200	
	% female					
	% of targeted					
	number of ha					
	% of targeted					
Objective 2: Strengthen institutional and technical capacities for effective climate change adaptation						

Outcome 2.1: Increased awareness of climate change impacts, vulnerability and adaptation						
Indicator 5: Public awareness activities carried out and population reached	Yes/No	No	Yes	yes	yes	
	number of people	0	10000		4942	5,000 households (assumef 4 persons per household)
	% female	0	50		48	Assumed
Outcome 2.2: Access to improved climate information and early-warning systems enhanced at regional, national, sub-national and local levels						
Indicator 6: Risk and vulnerability assessments, and other relevant scientific and technical assessments carried out and updated	number of relevant assessments/ knowledge products				47	(Comprehensive Risk Management in ASADAS -GIRA: tool for disaster risk management in ASADAS)
Indicator 7: Number of people/ geographical area with access to improved climate information services	number of personnel in ASADAS	*225*	*1,525*		*705*	*305 ASADAS, avarage 5 persons per each (commitee members and staff)*
	% female	*50*	*763*		*40*	
	% of targeted area (e.g. % of country's total area)					
Indicator 8: Number of people/ geographical area with access to improved, climate-related early-warning information	number of people	*225*	*1,525*		*51,198*	*5 high risk communities covered by Early Warning System in Upala*
	% female	50	763		48	
	% of targeted area (e.g. % of country's total area)					
Outcome 2.3: Institutional and technical capacities and human skills strengthened to identify, prioritize, implement, monitor and evaluate adaptation strategies and measures						
Indicator 9: Number of people trained to identify, prioritize, implement, monitor and evaluate adaptation strategies and measures	number of people	*0*	*1,500*		4942	
	% female	0	50		48	
Indicator 10: Capacities of regional, national and sub-national institutions to identify, prioritize, implement, monitor and evaluate adaptation strategies and measures	number of institutions					
	score					(if the scoring methodology is different from the recommended [see Sheet 2], please describe)
Objective 3: Integrate climate change adaptation into relevant policies, plans and associated processes						
Outcome 3.1: Institutional arrangements to lead, coordinate and support the integration of climate change adaptation into relevant policies, plans and associated processes established and strengthened						
Indicator 11: Institutional arrangements to lead, coordinate and support the integration of climate change adaptation into relevant policies,	number of countries					
	score					(if the scoring methodology is different from the recommended [see Sheet 2], please describe)

plans and associated processes						
Outcome 3.2: Policies, plans and associated processes developed and strengthened to identify, prioritize and integrate adaptation strategies and measures						
Indicator 12: Regional, national and sector-wide policies, plans and processes developed and strengthened to identify, prioritize and integrate adaptation strategies and measures	number of policies/ plans/ processes					
	score					(if the scoring methodology is different from the recommended [see Sheet 2], please describe)
Indicator 13: Sub-national plans and processes developed and strengthened to identify, prioritize and integrate adaptation strategies and measures	number of plans/ processes	0	40		47	At least 40 Risk Management Plans for Potable Water and Sanitation (RMPPWS) developed for ASADAS with gender considerations integrated
	score	0	10			The GIRA tool is now approuved for nation wide implementation
Outcome 3.3: Systems and frameworks for the continuous monitoring, reporting and review of adaptation established and strengthened						
Indicator 14: Countries with systems and frameworks for the continuous monitoring, reporting and review of adaptation	number of countries					
	score					(if the scoring methodology is different from the recommended [see Sheet 2], please describe)
Reporting on GEF gender indicators						
Q1: Has a gender analysis been conducted during project preparation?			YES	YES	yes	The census conducted with ASADAs during project preparation included an addendum on climate change that have dealt with gender aspects to some extent. Gender aspects will be further addresseed in the detailed and vulnerability assessments, local water safety plans and training programmes during implementation
|Q2: Does the project results framework include gender-responsive indicators, and sex-disaggregated data?			YES	YES	YES	

Q3: Of the policies, plans frameworks and processes supported (see indicators 12 and 13 above), how many incorporate gender dimensions (number)?	At least 40 Risk Management Plans for Potable Water and Sanitation (RMPPWS) developed for ASADAS with gender considerations integrated		YES	
Q4: At mid-term/ completion, does the mid-term review/ terminal evaluation assess progress and results in terms of gender equality and women's empowerment?	NA		YES	

Anexo 16. Data collection and analysis

METHOD/SOURCE	DESCRIPTION	ADVANTAGES	CHALLENGES
UNDP monitoring systems	Uses performance indicators to measure progress, particularly actual results against expected results	▪ Can be a reliable, cost-efficient, objective method to assess progress of outputs and outcomes	▪ Dependent upon viable monitoring systems that have established baseline indicators and targets and have collected reliable data in relation to targets over time, as well as data relating to outcome indicators
Reports and documents	Existing documentation, including quantitative and descriptive information about the initiative, its outputs and outcomes, such as documentation from capacity development activities, donor reports and other evidentiary evidence	▪ Cost-efficient	▪ Documentary evidence can be difficult to code and analyse in response to questions ▪ Difficult to verify reliability and validity ofdata
Questionnaires	Provides a standardized approach to obtaining information on a wide range of topics from a large number or diversity of stakeholders (usually employing sampling techniques) to obtain information on their attitudes, beliefs, opinions, perceptions, level of satisfaction, etc.concerning the operations, inputs, outputs and contextual factors of a UNDP initiative	▪ Good for gathering descriptive data on a wide range of topics quickly at relatively lowcost ▪ Easy to analyse ▪ Gives anonymity to respondents	▪ Self-reporting may lead to biased reporting ▪ Data may provide a general picture but may lack depth ▪ May not provide adequate information on context ▪ Subject to sampling bias
Interviews	Solicit person-to-person responses to pre-determined questions designed to obtain in-depth information about a person's impressions or experiences, or to learn more about their answers to questionnaires or surveys	▪ Facilitates fuller coverage, range and depthof information of a topic	▪ Can be time-consuming ▪ Can be difficult to analyse ▪ Can be costly ▪ Potential for Interviewer to bias client's responses
On-site observation	Entails use of a detailed observation form to record accurate information on site about how a programme operates (ongoing activities, processes, discussions, social interactions and observable results as directly observed during the course of an initiative)	▪ Can see operations of a programme as they are occurring ▪ Can adapt to events as they occur	▪ Can be difficult to categorize or interpret observed behaviours ▪ Can be expensive ▪ Subject to (site) selection bias

Group interviews	A small group (six to eight people) is interviewed together to explore in-depth stakeholder opinions, similar or divergent points of view, or judgements about a development initiative or policy, to collect information around tangible and non-tangible changes resulting from an initiative	▪ Quick, reliable way to obtain common impressions from diverse stakeholders ▪ Efficient way to obtain a high degree of range and depth of information in a short time	▪ Can be hard to analyse responses ▪ Requires trained facilitator ▪ May be difficult to schedule
Key informants	Qualitative in-depth interviews, often one on one, with a wide range of stakeholders who have first-hand knowledge about the initiative's operations and context. These community experts can provide particular knowledge and understanding of problems and recommend solutions	▪ Can provide insight on the nature of problems and give recommendations for solutions ▪ Can provide different perspectives on a single issue or on several issues	▪ Subject to sampling bias ▪ Must have some means to verify or corroborate information

Fuente: UNDP
Evaluation Guidelines