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FINAL PERFORMANCE EVALUATION OF THE USAID REGIONAL CLIMATE CHANGE PROGRAM (RCCP)

2017

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Cover: Women in Rocjá Pomptila in a focus group discussion, Alta Verapaz, Guatemala, May 24, 2017. Credit: Carolina Dreikorn

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ABSTRACT

The final performance evaluation of the USAID Regional Climate Change Program (RCCP) in the Central American region evaluated: 1) the most significant intended and unintended results achieved by RCCP; 2) the extent to which the results are aligned with national and regional climate change strategies, needs, and priorities in Central America; 3) the extent to which the RCCP has built local capacity in the region to address climate change issues; and 4) the approaches and results that have the potential to exist after USAID funding ends. The evaluation was predominantly qualitative and focused on processes that have led to changes in attitudes and empowerment, and the Program's role in these processes. A total of 118 individuals from Costa Rica, El Salvador, Guatemala, Honduras, and Panama were interviewed (36 percent were women). The evaluation found that RCCP has developed practical methodologies and tools to help different countries move forward on customized "Reducing Emissions from Deforestation, Forest Degradation, Conservation and Sustainable Management" issues (REDD+). The Program learned how to develop national agendas following a common methodology that included consultation, free and informed prior consultation, and social and environmental safeguards aligned with commitments and international agreements, including economic development options to benefit women, indigenous, and forest-dependent communities. There were numerous activities conducive to building local capacity. Knowledge and skills were transferred from end-users to planners in central government offices. Centro Clima was created as a regional private-public partnership to provide specialized meteorological services and inputs needed to craft tools to help stakeholders in different sectors decrease their vulnerability associated with climate change. Thus, Centro Clima is a regional asset. Coffee Cloud and Clima Pesca are two apps praised by the end users, but their sustainability depends on suitable inter-institutional arrangements.

CONTENTS

ACRONYMS and ABBREVIATIONS

ANACAFE	National Coffee Association of Guatemala
AOR	Agreement Officer's Representative
App(s)	Application(s)
ASER	Salvadoran Association for Renewable Energies
CAM	Central America and Mexico
CAFI	Custom CAFTA-DR Indicator
CAFTA-DR	Dominican Republic-Central America Free Trade Agreement
CARE	Cooperative for Assistance and Relief Everywhere
CATIE	Tropical Agricultural Research and Higher Education Center
CCAD	Central American Commission for Environment and Development
CDCS	Country Development Cooperation Strategy
CEN	U.S. Government Strategy for Engagement in Central America
CEPREDENAC	Coordination Center for the Prevention of Disasters in Central America
CI	Custom Indicator
CNGG	Climate, Nature, and Communities in Guatemala
CONAP	National Council for Protected Areas, Guatemala
COP	Conference of the Parties
CRRH	Regional Committee for Hydraulic Resources
DAI	Development Alternatives International
DEC	Development Experience Clearinghouse
DO	Development Objective
DQA	Data Quality Assessment
EIA	Environmental Impact Assessment
EPA	Environmental Protection Agency (U.S.)
ER-PD	Emission Reduction Project Development
ER-PIN	Emission Reduction Project
FAO	Food and Agriculture Organization of the United Nations
FCPF	Forest Carbon Partnership Facility
FGD	Focus Group Discussion
FPIC	Free, Prior, and Informed Consent
FUNDAECO	Foundation for Eco Development and Conservation, Guatemala
FUNDALACHUA	Lake Lachuá Foundation, Guatemala
GHE	Green House Effect
GIZ	German Corporation for International Cooperation
ICAFE	Costa Rican Coffee Institute
INAB	National Forest Institute, Guatemala
INSIVUMEH	National Institute of Seismology, Meteorology, and Hydrology, Guatemala
IP	Implementing Partner
IUCN	International Union for the Conservation of Nature
LOE	Level of Effort
LOP	Life of Project
MAGA	Ministry of Agriculture, Livestock, and Food, Guatemala
MAPSP	Environment and Production Platform of Sico-Paulaya
MARENA	Ministry of Environment and Natural Resources, Nicaragua

MARN-GT	Ministry of Environment and Natural Resources, Guatemala (Ambiente in Spanish)
MARN-ES	Ministry of Environment and Natural Resources, El Salvador (Medio Ambiente in Spanish)
MAS	Mitigation and adaptation synergy
M&E	Monitoring and Evaluation
MEL	Monitoring, Evaluation, and Learning (Plan)
MiAmbiente	Ministry of Energy, Natural Resources, and Mining, Honduras
MRV	Monitoring, Reporting, and Verification
NASA	National Aeronautics and Space Administration
NGO	Non-Governmental Organization
NOAA	National Oceanic and Atmospheric Administration
NRM	Natural Resource Management
OSPESCA	Organization of the Fisheries and Aquaculture Sector of the Central American Isthmus
PCPF	Forest Carbon Partnership Facility
PERFOR	Regional Strategic Program for Forest Ecosystem Management
PINPEP	Incentive Program for Small Forestland Owners
PITT	Performance Indicator Tracking Table
PMEP	Performance Monitoring and Evaluation Plan
PPP	Public Private Partnership
PROBOSQUE	Law for Promoting the Establishment, Recovery, Restoration, Management, Production, and Protection of Forests in Guatemala
RAAN	North Atlantic Autonomous Region, Nicaragua
RCCP	USAID Regional Climate Change Program
RDCS	Regional Development Cooperation Strategy
REDD+	Reducing Emissions from Deforestation, Forest Degradation, Conservation, and Sustainable Management
ROAM	Restoration Opportunities Assessment Methodology
SI	Standard Indicator
SICA	General Secretariat of the Central American Integration System
SINAC	National Conservation Areas System
SIS	Safeguards Information System
SL	Sustainable Landscape
SOW	Statement of Work
TERRA	Terra Global Capital
UNDP	United Nations Development Programme
UNEP	United Nations Environmental Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNREDD	United Nations Programme on Reducing Emissions from Deforestation and Forest Degradation
USAID	U.S. Agency for International Development
USGS	U.S. Geological Survey
WB	The World Bank

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Information provided by the regional and international organizations we visited was also extremely important. Their work, aimed at increasing collaboration within the Central American Region, enriched our thoughts and data processing responsibilities. Contributions from USAID Missions and Officials were key and critical to this evaluation. Their knowledge of historical events and their perspective on the Program's contributions to local, national, and regional development goals laid the ground work for our investigations.

The Evaluation Team gives special thanks to Program staff, the Prime (CATIE), and implementing partners: CARE, DAI, IUCN, and TERRA. Their understanding and the transparency with which they transmitted their knowledge was indispensable to our work. Their help with the complicated logistics of this mission is also noted and much appreciated. The administrative and logistical support from Mendez England & Associates is deeply valued. Meetings, interviews, and travel plans were handled in a timely manner. All remaining errors, omissions, or misinterpretations are the sole responsibility of the authors.

EXECUTIVE SUMMARY

EVALUATION PURPOSE

This report serves as the final performance evaluation of the USAID Regional Climate Change Program (RCCP) in the Central American region, funded by the United States Agency for International Development (USAID) Mission in El Salvador and implemented by the Tropical Agricultural Research and Higher Education Center (CATIE, by its acronym in Spanish) during the evaluation period of April 2013 – December 2016. The purpose of the RCCP evaluation is to inform USAID of the activity's achievements and challenges to date so that it may make any necessary changes for the remainder of program implementation and plan appropriately for future environmental work in the region. The evaluation will also serve to provide empirical evidence on management issues that will support learning and continuous improvement in USAID's regional environmental work both for this activity and for future endeavors. Findings, conclusions, and recommendations will be used by USAID to make any necessary adjustments for the remainder of RCCP implementation, as well as determine areas and approaches for future regional environmental activities based on Mission goals and expected results.

PROJECT BACKGROUND

The RCCP is implementing three components: Sustainable Landscapes (REDD+)[1], Adaptation, and Environmental Management under the Dominican Republic-Central America Free Trade Agreement (CAFTA-DR). The last component was included in the project as of mid-2105. The first two components contribute to USAID/CAM's Development Objective 2:[2] "Economic Freedom: Regional climate-smart economic growth enhanced," which considers that climate change impacts affect the Central American region as a whole[3]. The third component will help countries achieve environmental goals related to free trade between the United States (U.S.) and Central America and the Dominican Republic, to protect and preserve the environment while promoting inclusive growth.

EVALUATION QUESTIONS

Four evaluation questions, identified by USAID, were used during the data collection process:

1. What have been the most significant intended and unintended environmental, social, and economic results achieved to date by RCCP?
   1.1 What have been the main internal and external factors that have influenced the achievement or non-achievement of RCCP's expected results as planned?
2. To what extent are the results of RCCP aligned with national and regional climate change strategies, needs, and priorities in Central America?
3. To what extent has USAID been able to build or strengthen local capacity in the region to address climate change issues?
4. What methodologies, approaches, and results achieved by RCCP have the potential to continue to exist after USAID's funding ends?

[1] Reduction of emissions due to deforestation and degradation of forests, conservation, and sustainable management.
[2] USAID. Cooperative Agreement No. AID-596-A-13-00002, p. 25.
[3] Central America and Mexico (CAM) Regional Development Cooperation Strategy 2015-2019

EVALUATION DESIGN AND LIMITATIONS

The approach followed in this evaluation was predominantly qualitative and focused on processes that have led to changes in attitudes and empowerment, and the Program's[4] role in these processes. Quantitative indicators were used only as a reference to illustrate the differences in explaining processes, rather than for use in assessing numerical milestones. Informants from the different groups of stakeholders were interviewed using semi-structured questionnaires. The sample population of stakeholders (118) provided a small but diverse representation, wherein 36 percent of interviewees were female.

FINDINGS AND CONCLUSIONS

Evaluation Question 1: Impact

Findings

- RCCP developed common definitions, practical methodologies, and tools to help different countries move forward on customized REDD+ issues.
- Interviewees stated that the Restoration Opportunities Assessment Methodology (ROAM) tool developed by RCCP-IUCN[5] has opened windows for discussion at the ministerial level, and not only on landscapes, but also on water, agriculture, and tourism. Mitigation and adaptation synergy (MAS) is another tool that was developed that could be applied to determine previous impacts and future interventions through the use of data. The tool is promising but has yet to be finalized.
- The government staff in Honduras was not made aware of the miscommunication between CATIE and the Environment and Production Platform of Sico-Paulaya (MAPSP) in Honduras, regarding CATIE's exit in September, 2017. Informants interviewed by the Team in June, 2017 complained about the lack of proper response to their questions regarding CATIE's exit from the priority territory (in October, 2016) that used more than $570,000 since 2013. The exit plan had not been socialized with the end users.
- RCCP has facilitated the implementation of seven Regional Climate Fora that allowed the Meteorological Services, the Regional Committee for Hydraulic Resources (CRRH) Secretariat, and other productive sectors to strengthen their relationship, exchange important data, and consolidate regional climate information.
- Centro Clima (clearinghouse) was originally conceived as having a smaller scope than what is actually being developed throughout the Program, but the result is of such magnitude that Centro Clima has been qualified as "the best bet."
- RCCP has created two applications (apps): Clima Pesca and Coffee Cloud. Coffee Cloud has been launched while Clima Pesca is expected to be launched in July 2017. Interviewees stated that both Coffee Cloud and Clima Pesca should be continued while also exploring the opportunity to create new applications for other productive sectors (e.g., sugar cane and pineapple).
- The agenda of the Environmental Management component of CAFTA-DR has strengthened the Central American Commission for Environment and Development's (CCAD) environmental agenda. Environmental knowledge has been fostered and shared among countries belonging to the General Secretariat of the Central American Integration System (SICA), and the appropriation of technology and protocols depends on the needs of the

[4] Henceforth, Program and RCCP are used interchangeably.
[5] International Union for the Conservation of Nature

countries. The staff for this component is well-recognized by USAID staff and amongst the governmental interviewees.

Conclusions

- Central American countries are now more active and have made progress in REDD+ as compared to four years ago; they expect to finalize their REDD+ National Strategies by 2018. RCCP has supported SICA countries but it remains to be seen whether they can mobilize funds and meet their pledge to the Bonn Challenge.
- ROAM is an important tool that is being successfully applied in Honduras, Guatemala, and El Salvador as of the end of 2016. MAS is another important tool, though it is yet to be finalized.
- The RCCP exit strategy from Sico-Paulaya was not made clear to the community members. The otherwise positive impact of this effort has been tinged with disappointment due to this breakdown in communication.
- CRRH has successfully compiled and managed climate data and information. Centro Clima hosts data not only from CRRH but also from the National Aeronautics and Space Administration (NASA), IUCN, and CATIE, amongst others, and has developed a dynamic tool to enhance knowledge and its applications with end users. Centro Clima supports both Clima Pesca and Coffee Cloud, providing climate data gathered from meteorological and sectoral organizations in the region.
- The Environmental Management component (under CAFTA-DR) has helped to revitalize CCAD as a leader with regional impact, even though it does not operate in any of the areas where the Sustainable Landscapes or Adaptation components operate.

Evaluation Question 2: Alignment

Findings

- At the beginning of the Program, REDD+ was not a well understood task, but it was a priority for RCCP to align REDD+ closely with the policies of those countries in order to reduce deforestation and vulnerability, and create employment by using the REDD+ development pathways following national environmental laws and work plans.
- The regional environmental agenda was established and approved at CCAD and by definition is aligned. Regional alignment is more difficult because national interests tend to dominate.
- Key informants agreed that CCAD requires strengthening to implement its regional mandate effectively, and RCCP has worked closely with individual countries to develop and implement agendas that are aligned regionally.
- Gender equity actions were mainly applied by UICN and CARE[6], who have their own internal gender policies. Even though there are 11 items in the RCCP Gender Action Plan (CATIE, 2013, p. 90), the Team is not aware of any formal comprehensive reporting on the Program's achievements. Findings from the field showed that women have participated as implementers or trainees in various activities. However, the majority of eight women interviewed with the help of translators in the communities surrounding Lake Lachuá, Alta Verapaz, Guatemala, were extremely shy in discussing issues relevant to their personal and community development, very possibly because the Team was a group of strangers. Most of the individuals leading and describing economic activities in the area were men. In Cerro

[6] Cooperative for Assistance and Relief Everywhere

San Gil, Izabal, Guatemala only one woman was interviewed by a member of the Team, and only two women from the MAPSP, Sico-Paulaya, Honduras (out of ten interviewees) participated in interviews and group discussions.

- Centro Clima was created as a regional data information platform to provide specialized meteorological services and the inputs needed to craft tools to help stakeholders in different sectors diminish their vulnerability associated with climate change.

Conclusions

- The Program learned how to develop national agendas following a common methodology that included consultation; free, prior, and informed consent (FPIC); and social and environmental safeguards aligned with commitments and international agreements, including economic development options to benefit women, indigenous, and forest dependent communities.
- The Team acknowledges that the number of female interviewees is less than desirable. However, it is difficult to imagine women in Lachuá (or in other sites visited) being assertive or taking leadership in meetings in the presence of men. While both men and women seem to be sensitized to participate in consultations and FPIC, and some women make a point to be included, the Team perceived that there is still a long way to go to achieve equitable and just distribution of responsibilities and benefits in the rural households.

Evaluation Question 3: Local Capacity

Findings

- There were numerous activities that facilitated the transfer of knowledge and skills to stakeholders at different levels. However, other than the general learning goals for these events expressed in training plans, the Team did not find information regarding how learning is measured.
- Interviews with producers in Honduras and Guatemala revealed their need for knowledge on basic skills in managerial economics in order to be competitive.
- As a result of capacity building efforts, RCCP has contributed to strengthening CRRH and Centro Clima, which is now producing information required by the coffee and fishery sectors; end users commented that they are pleased with the products. RCCP supported eight Climate Fora and has directly supported seven MS students in meteorology who will be reincorporated into meteorological institutions associated with CRRH.
- Technical environment staff working in the different brown areas under the CAFTA-DR component constitute an established group of environmental experts that have been mentored since 2005. However, none of the activities carried out under this component had any interaction with the work undertaken in the other components of the Program.

Conclusions

- RCCP was successful in building the land restoration skills of local staff in Honduras, Guatemala, and El Salvador. MARN in El Salvador is a good example. On their own initiative, the staff there expanded the use of 12 land transitions to 49.

- A good investment for RCCP has been its interaction with the coffee sector in Guatemala and Honduras; during 2015 and 2016, training manuals were developed and training events on coffee and climate change took place. CLIMA PESCA is a tool that offers a sophisticated set of real-time variables that are useful for navigation and fishing for the traditional fishing sector, available through smart phones. The tool can be used to introduce critical thinking through training on the basic principles of managerial economics.
- Activities under the CAFTA-DR component do not have any interaction with the other two Program components; thus, possible synergies in capacity development between the Program components have yet to be realized.

Evaluation Question 4. Sustainability

Findings

- RCCP has played a key role in strengthening capacities and providing technical advice, tools and methodologies. Most of the countries in Central America were not ready for REDD+ when the RCCP began, but they are now working toward this end.
- The Guatemalan Restoration Strategy is linked to REDD+ government incentive programs such as PINPEP and PROBOSQUES[7], forest concessions, and others. In El Salvador, the REDD+ strategy has the Restoration Program as the backbone of the Mitigation-based Adaptation Strategy.
- The Team found that the majority of land stewards, water users, agriculturalists, livestock producers, beekeepers, and artisans do not have the skills necessary to successfully produce in order to compete with imports, or the skills to achieve cost-efficient export quality. There is a very high dependence on advisers, and the seed for independent thinking has yet to germinate.
- CRRH and its members (Meteorological Services of Central America) have endorsed Centro Clima and have accepted responsibility for administration of this platform. There is evidence of the use of climatological data at the regional level now that the apps for Coffee and Fisheries are ready, but sustainability depends on suitable inter-institutional arrangements as well as follow-up on app performance, acceptance, and evolution. Centro Clima is the second PPP created by RCCP (after FUNDAECO, Izabal, Guatemala in 2016). Even though Centro Clima is still technically being developed, and the hiring of its core management team is pending, it was born in the region, for the region, and it constitutes an asset for CCAD. Centro Clima was designed to unfold new areas of knowledge and applications.
- RCCP and CRRH have prepared a nine year, three stage Business Plan for Centro Clima that will be used to follow a pathway towards high-level regional goals and the sustainability of Centro Clima.
- The Environmental Management component of the Program has helped with equipment, expertise, and laboratories to adopt quality standards, and has encouraged certification as a vital element for financial sustainability.

Conclusions

- The engagement of all types of stakeholders in the Safeguard Committees is necessary in order to mitigate the risk of the social and environmental impacts posed by the risks associated with climate change. In some cases, the benefits for different sectors of saving the

[7] Incentive Program for Small Forestland Owners (PINPEP) and Law for Promoting the Establishment, Recovery, Restoration, Management, Production, and Protection of Forests in Guatemala (PROBOSQUES).

forest had more power to spark change in attitudes than conventional economic incentives in REDD+.

- There has been weak empowerment of local communities to address day-to-day and strategic planning by using evidence on the status of their natural resources and the market environment to determine whether some interventions or innovations are economically viable. The communities are still very dependent on the advice provided by experts.
- It is likely that the CAFTA-DR component will continue to share expertise even in the absence of USAID's support. In the opinion of MiAmbiente and USAID Honduras, the labs could be sustainable if they manage to get certification for standards sometime in 2017.

1.0 EVALUATION PURPOSE AND EVALUATION QUESTIONS

1.1 EVALUATION PURPOSE

The purpose of the final performance evaluation of the Regional Climate Change Program (RCCP) is to inform USAID of the activity's achievements and challenges to date in order to make any necessary changes for the remainder of program implementation, and plan appropriately for future environmental work in the region. In addition, the evaluation will serve to provide empirical evidence on management issues that will support learning and continuous improvement in USAID's regional environmental work through this activity and future endeavors.

The principal audience for this evaluation will be USAID, particularly the Economic Growth Office, the Regional Program Office, the Environment Management of the Central America and Mexico (CAM) Mission, the USAID Bureau for Economic Growth, Education and Environment's Office of Global Climate Change, and the implementing partners (IPs) – the Tropical Agricultural Research and Higher Education Center (CATIE, by its acronym in Spanish) as the prime, and other member of the Consortium, including CARE, DAI, IUCN[8], and TERRA Global – who will carry out the remaining implementation of the activity based on findings and recommendations from this evaluation. Finally, regional and national environmental agencies involved in the coordination of activity implementation will also participate in the evaluation.

Findings, conclusions, and recommendations will be used by USAID to make any necessary adjustments for the remainder of RCCP implementation, as well as to determine areas and approaches for future regional environmental activities based on Mission goals and expected results. In addition, evaluation results will be used for reporting purposes to stakeholders. USAID will also use the evaluation findings to begin considering its next regional environmental activity.

1.2 EVALUATION QUESTIONS

Four evaluation questions, identified by USAID, were used during the data collection process:

1.2.1. What have been the most significant intended and unintended environmental, social, and economic results achieved to date by RCCP?

1.2.1.1. What have been the main internal and external factors that have influenced the achievement or non-achievement of RCCP's expected results as planned?

1.2.2. To what extent are the results of RCCP aligned with national and regional climate change strategies, needs, and priorities in Central America?

1.2.3. To what extent has USAID been able to build or strengthen local capacity in the region to address climate change issues?

1.2.4. What methodologies, approaches, and results achieved by RCCP have the

[8] Cooperative for Assistance and Relief Everywhere (CARE), Development Alternative International (DAI), and International Union for the Conservation of Nature (IUCN).

potential to continue to exist after USAID's funding ends?

2.0 PROGRAM BACKGROUND

Forested landscapes in a few countries in Mesoamerica continue to decrease, possibly at a lower rate than the first decade of this Century (United Nations Programme on Reducing Emissions from Deforestation and Forest Degradation, UNREDD, 2012[9]). However, population growth and the need for increasing incomes puts continuous pressure on the land base. Greater pressure on the natural resource base has also been compounded by climate change resulting from the accumulation of gases associated with the greenhouse effect (GHE), such as carbon dioxide-CO_2, methane-CH_4, and nitrous oxide-N_20, among others. These gases are thought to be a major cause of extreme hydro-meteorological events, which generally involve warmer and drier conditions associated with higher weather variability that increases the risk and vulnerability of people's livelihoods. It is estimated that 35 percent of global gas emissions are the result of tropical deforestation (CO_2). Use of agricultural fertilizer contributes N_2O, while livestock enteric fermentation and manure management, paddy rice farming, paddy land use, and wetland changes contribute CH_4. Thus, in the short-run, countries can adapt to climate change by being better prepared to cope with the associated risks. This may include adopting improved land use and agricultural practices, relying on proactive or smart management, and preparedness for natural disasters. In the long-run, it is possible to restore degraded landscapes or conserve remaining ones that have suffered little or no anthropogenic perturbation. It is in this context that RCCP began in April, 2013.

The RCCP activity is scheduled to end in April, 2018. The initial cooperative agreement was modified in September, 2015 to increase the total funding from $18,500,000 to $21,383,134 and to reflect additional activities and results.

The RCCP, located within USAID's Regional Development Cooperation Strategy (RDCS) 2015-2019, contributes to Development Objective 2: "Regional climate-smart economic growth enhanced." Specifically, RCCP contributes to intermediate result (IR) 2.1: "Low-carbon development increased," and IR 2.2: "Resiliency of humans and the environment to climate change impacts increased." The RCCP also contributes to the achievement of Objective 1 of the U.S. Government Strategy for Engagement in Central America (CEN Strategy), of "Prosperity and Regional Integration," as well as the first Line of Action in the Alliance for Prosperity Plan in the Northern Triangle[10] to "Stimulate the productive sector to create economic opportunities," and the environmental activities of the Dominican Republic-Central America Free Trade Agreement (CAFTA-DR).

The RCCP was designed to focus on: 1) Sustainable Landscapes (the "Reducing emissions from deforestation and forest degradation" mechanism, or REDD+); and 2) Adaptation to support the Central American Region (Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Nicaragua, and Panama) in processes to mitigate the negative

[9] UNREDD (2012, p. 8). *Tenure of indigenous peoples territories and REDD+ as a forestry management incentive: the case of Mesoamerican countries.* FAO, Rome, Italy.
[10] http://idbdocs.iadb.org/wsdocs/getdocument.aspx?docnum=39224238

effects of global climate change. The Program was designed to help countries to engage in REDD+ activities conducive to reducing emissions from deforestation and forest degradation, agriculture, and other land uses. The design also included broadening partnerships through support for closer coordination between the General Secretariat of the Central American Integration System (SICA, by its acronym in Spanish), Specialized Environmental Institutions, and key U.S. Government (USG) agencies, such as the National Aeronautics and Space Administration (NASA), the United States Geological Survey (USGS), and the National Oceanic and Atmospheric Administration (NOAA), etc. The purpose of these partnerships was to improve the efficiency and effectiveness of delivering remote sensing data and decision support analysis tools to end users in the region.

Currently, RCCP includes three components: Sustainable Landscapes (SL), Adaptation, and Environment Management under CAFTA-DR. The first two components are aligned with two pillars of the Presidential Global Climate Change Initiative: Sustainable Landscapes, Adaptation, and Clean Energy.

Figure 1: RCCP Coordination Structure

CATIE, in collaboration with USAID/CAM coordinates work on the three components. The three objectives of the Sustainable Landscapes component are:

1. Identify necessary steps and facilitate the implementation of foundational investments required for the development of local, national, and/or trans-boundary carbon credit marketing proposals within and between Central American countries, and between different institutions, as a mechanism to provide financial and economic incentives for the conservation of tropical forest ecosystems;
2. Develop and deploy regional and country-based integrated operations plans and mitigation measures that address climate change stressors and vulnerabilities;
3. Develop integrated and regionally harmonized REDD+ strategies and protocols

and Monitoring, Reporting, and Verification (MRV) protocols / programs and other related agriculture, forestry, and other land use initiatives that have the potential to be harmonized and accepted across the region.

CATIE works on technical issues such as MRV; pilot sites, inventories, MAS, and also coordinates work with other Consortium members. CARE and IUCN work on social issues, namely safeguards; consultations; free, prior, and informed consent (FPIC); and inclusion. TERRA works on economic and financial aspects such as markets, costs, and financial projections. IUCN also works on forest policies for restoration, illegal logging, and traceability.

The two objectives of the Adaptation component are:

1. Generation of meaningful and useful climate change data by a variety of institutions distributed to decision makers in both government and the private sector, including communities and other local key stakeholders;
2. Development of distribution systems to provide this data and decision support in a timely and user-friendly manner.

CATIE is the leading institution developing Centro Clima (clearinghouse) as a public-private partnership (PPP) to provide climatological services for the Central American Region; as such, it is the liaison between the regional public institutions and the private sector.[11] IUCN works closely with CATIE to support the development of user networks as strategic partners of Centro Clima, providing relevant information to the database, and, in the long term, concretizing other initiatives to consolidate the map server at Centro Clima. DAI brings the information technology expertise to build a sustainable network and data management system, as well as tools to serve economic sectors in the region, and financial support.

The RCCP modification in September, 2015 added the Environmental Management component under CAFTA-DR[12] to strengthen the environmental management systems of CAFTA-DR countries (Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, and Nicaragua) and their institutional and legal frameworks, thereby increasing their ability to use innovative approaches, processes, strategies, or methodologies to adapt to climate change within five areas:

1. Improving and harmonizing environmental regulations, policies, and procedures;
2. Strengthening Environmental Impact Assessment procedures;
3. Improving enforcement and compliance of environmental laws and regulations;
4. Improving energy efficiency;
5. Institutional strengthening of CCAD Secretariat.

This component seeks to continue providing assistance to promote compliance with the commitments presented under the CAFTA-DR, the Environmental Cooperation Agreement (ECA), and the environmental components of the Panama Free Trade Agreement, through better wastewater management, better solid waste management, informed decision making,

[11] PRCC-USAID and CRRH-SICA. 2017. Master Document: Institutional Design, Business Plan, and Sustainability of Centro Clima. Regional Climate Change Program - USAID and CRRH-SICA, in collaboration with CCAD, San Salvador, 153 p.

[12] The U. S. Environmental Protection Agency (EPA) provides technical support to this RCCP component.

and improved enforcement and compliance with environmental laws and regulations to strengthen environmental institutions and build local capacity in CAFTA-DR countries. CATIE coordinates the activities with the U.S. EPA; both work in residual waters, solid waste, Environmental Impact Assessments (EIA), and application and compliance of environmental laws. CATIE is also responsible for the work on energy efficiency and CCAD institutional strengthening.

2.1 DEVELOPMENT HYPOTHESIS OF THE RCCP

Through the establishment of carbon-based incentives to reduce emissions from deforestation, forest degradation, and other land uses, and through the integration of earth observation information and geospatial technologies into development decision making, target countries will improve their environmental management and resilience to climate change.[13]

At the time of this writing, U.S. environmental policy has undergone changes relative to the period evaluated, which was from April, 2013 through the end of 2016. The current policy climate has changed, modifying the scenario under which the actionable recommendations of this evaluation would be applied. Nevertheless, the findings and conclusions pertain to activities undertaken prior to 2017, and the evaluation will focus on that perspective. Keeping this in mind, the current policy climate will need to be taken into account in continuing activities. The question also remains regarding how the Program[14] can maximize implementation impact with limited resources. Hopefully, these considerations will be useful to USAID for program planning, as well as to implementing agencies, the national programs, and possibly the potential direct and indirect beneficiaries of future development actions, who will receive enhanced benefits as well.

This evaluation report is organized as follows. The present section includes a discussion of the genesis of the RCCP (USAID, 2013) and the context of the REDD+ mechanism in Central America. In the next section, the methodology used for this evaluation is explained and supported in the Annexes. Detailed lists of interviewees in different countries are also provided in the Annexes. Findings and conclusions for the four evaluation questions are elaborated on with the support of secondary data, field observations, individual and group interviews, and direct interaction with stakeholders. The three components of RCCP are embedded in each of the evaluation questions and are included in such a way as to demonstrate Program integration. Recommendations are provided in a separate section. Following the Evaluation Scope of Work (SOW), a section on Program management and use of financial resources is also included.

2.2 CONTEXT OF THE REDD+ MECHANISM IN CENTRAL AMERICA

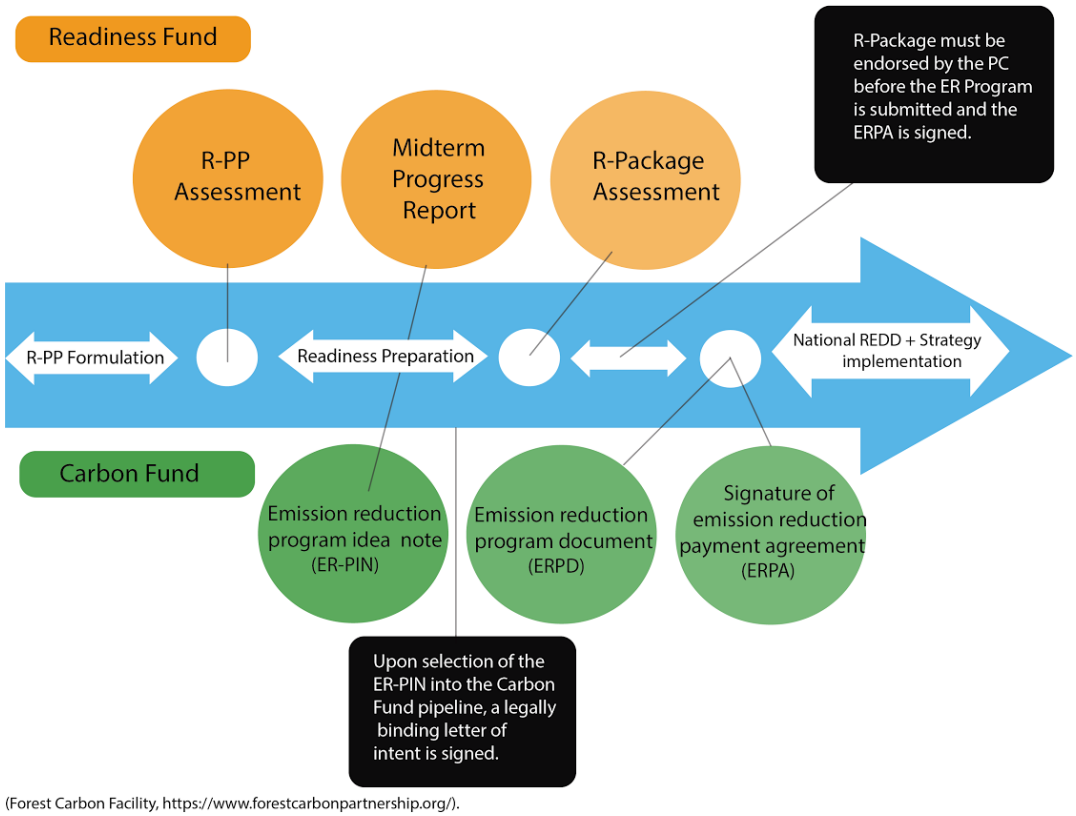
Prior to the presentations of findings and conclusions, it is of foremost importance to understand the general concepts of the REDD+ mechanism in order for the reader to follow the Team's findings.

[13] USAID Monitoring, Evaluation, and Learning Plan. December, 2016.
[14] Henceforth, RCCP and the Program will be used interchangeably.

The Forest Carbon Partnership Facility (FCPF) was launched in Bali in 2007 (and started to operate in 2008) during the Conference of Parties (COP 13) of the United Nations Framework Convention on Climate Change (UNFCCC). The FCPF is a global partnership focused on reducing emissions from deforestation and forest degradation, forest carbon stock conservation, and sustainable management of forests in developing countries (referred to as REDD+). This Facility has two funding mechanisms administered by the World Bank (WB): the Readiness Fund and the Carbon Fund (Forest Carbon Facility, https://www.forestcarbonpartnership.org/).

- The Readiness Fund supports tropical and sub-tropical developing countries in preparing for REDD+ including: a) preparing national REDD+ strategies; b) developing reference emissions levels; c) designing measurement, reporting, and verification systems (MRV); and d) setting management arrangements and environmental and social safeguards.
- The Carbon Fund allows countries to prepare and submit proposals under their National Reduction Program in the Forest Sector for possible transactions on emissions reductions. This Fund provides an incentive to the recipient country to achieve long-term sustainability in financing forest conservation and management programs.

Figure 2. Milestones of REDD+



(Forest Carbon Facility, https://www.forestcarbonpartnership.org/).

In addition to the FCPC, the UN-REDD+ Program is a collaboration with the United Nations (FAO, UNDP, and UNEP) for the reduction of emissions due to deforestation and degradation of forests in developing countries. It was created in 2008 to support developing countries in improving their capacity to reduce emissions and participate in REDD+ mechanisms.

All Central American countries have accessed the Readiness Fund (FPCF and UN-REDD) at different times, and currently the REDD+ status varies for each one (Annex X). In addition, some countries have addressed the mitigation approach with the expectation of participating in carbon markets (the Carbon Fund), while others are focused mainly on adaptation with no intention of participating in the carbon markets.

The REDD+ preparation process has been supported by the involvement of countries in the Bonn Challenge and the development of national strategies for restoration (Costa Rica, El Salvador, Guatemala, and Honduras).

3.0 EVALUATION METHODS AND LIMITATIONS

3.1 EVALUATION METHODOLOGY

This evaluation was mainly qualitative and focused on processes that have led to changes in attitudes and empowerment, as well as how, in what way, and to what extent the Program brought about changes.

To conduct the evaluation, the Team reviewed strategic documents such as the RDCS 2015-2019, the Cooperative Agreement between USAID-CATIE from April, 2013 and its modification in September, 2015, RCCP quarterly and annual reports, annual work plans, Data Quality Assessments (DQAs), climate change mitigation and adaptation literature, the UN-REDD Evaluation (UN-REDD, 2015), and miscellaneous documents. The purpose was to assess:

- progress against the deadlines specified in the approved Work Plan and performance indicator targets specified in the Performance Monitoring and Evaluation Plan (PMEP) (quantitative)
- quality of document-based deliverables (qualitative)
- implementation context: institutional framework and socio-economic conditions; and
- links with national strategies and other projects.

A list of documents consulted by the Team is included in Annex VII, and a series of chronological pictures are included in Annex VIII.

Implementation performance of the three RCCP components was assessed using PMEP indicators. This assessment was complemented with qualitative research to uncover the complexity of the Program. Questionnaire forms were developed for key informant interviews (KIIs), focus group discussions (FGDs), and meeting notes (MMs).

The Team interviewed the Implementing Partner (IP), Consortium partners, government officers, and U.S. Government staff (USAID, U.S. Department of State, U.S. Environmental Protection Agency) in selected countries. They paid special attention to gleaning what the mechanisms or practices were that induced or hindered Sustainable Landscapes and Adaptation practices to cope with climate change risks.

The Team conducted direct observations, semi-structured interviews, and focus groups with direct and indirect beneficiaries in Guatemala (Lachuá Region, Alta Verapaz, and Cerro San Gil, Izabal) and Honduras (Sico-Paulaya, Iriona). Selection of interviewees in the field was done in consultation with USAID/CAM and the IP and Consortium members; there was no room for randomization, as the pool of potential interviewees was small, and time was very limited[15] (Annex III).

[15] During the field work, the team travelled more than twice the number of contact hours with interviewed stakeholders.

The different stakeholders identified by USAID and expanded on by the Team for this evaluation are as follows:

1. IP (CATIE)
2. Consortium members (CARE, DAI, IUCN, TERRA Global) and U.S. EPA
3. Government cluster: authorities and officers from Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, and Panama
4. Private Sector (Forest management and agroforestry cooperatives and associations, cattle associations, NGOs, and private business people)
5. Regional and international organizations: Central American Commission for Environment and Development (CCAD), Regional Committee for Hydraulic Resources (CRRH), Central American Fisheries and Aquaculture Organization (OSPESCA), Food and Agriculture Organization of the United Nations (FAO), and the German Corporation for International Cooperation (GIZ)
6. Program beneficiaries in priority territories in Guatemala, Honduras, Nicaragua, and Panama[16]
7. USAID Cluster: Economic Growth Office, the Regional Program Office, and the Mission Management of the CAM Mission, USAID bilateral missions in Guatemala and Honduras, and the USAID Bureau for Economic Growth, Education and Environment's Office of Global Climate Change, and USAID bilateral activities

FGDs were structured as "show and tell" events wherein the participants described their activities and achievements, followed by semi-structured questions from the Team. This format allowed for thematic dialogue relevant to the evaluation questions. These FGDs lasted between one and four hours, depending on the level and amount of information to be shared for a specific group. Informational Meetings were held with individuals or with groups. The Team assured the participants that their responses were to be kept anonymous and that all necessary data management provisions would be taken to that end.

The number of participants in the FGDs varied from two to nine people, depending on the venue and availability of participants. Women were interviewed at some visited sites, either in a FGD or as KII. The Team was not authorized to travel to some sites due to security reasons and did not have control over the balance of participation between men and women who were traveling from remote areas requiring long journeys away from their homestead. Meetings were held in hotels when travel restrictions applied for the Team; otherwise, they were held in community centers and schools. *Maya Q'eqchí* speaking translators were made available to ensure fluent communication between the participants in Guatemala and the Team. The majority, if not all, of key informants and participants in FGDs in Honduras spoke Spanish.

3.2 EVALUATION COVERAGE

The Team interviewed 118 individuals; 76 males and 42 females (64 and 36 percent, respectively), as shown below. The next table shows that almost half of the interviewees

[16] Visits to Nicaragua and Panama were suggested as an Alternative Plan if local contacts were confirmed and government clearances obtained. During the meeting with USAID (May 5, 2017), it was suggested that the Team should consider assessing the impact of RCCP in the Priority Territories of Nicaragua and Panama. Visits to these countries were unfeasible within the schedule of this evaluation.

were from stakeholder Group 2-SICA members, national government institutions, non-governmental organizations (NGOs), and the private sector (46 percent), followed by stakeholder Group 3-beneficiaries and non-beneficiaries of the program in priority sites and public-private partners (35 percent), and stakeholder Group 1–USAID missions and implementing partners (19 percent). The sampled populations of stakeholders provided a small but diverse representation.

Table 1: Sampling of stakeholders by country, sex, and evaluation instrument

	Costa Rica		El Salvador		Guatemala		Honduras		Panama		All countries			
	M	F	M	F	M	F	M	F	M	F	M	F	M+F	
MM	7	10	4	1	12	9	0	0	2	0	25	20	45	**MM**
KII	4	8	3	1	4	2	5	0	0	0	16	11	27	**KII**
FGD	3	3	0	0	23	4	9	4	0	-	35	11	46	**FGD**
Total	14	21	7	2	39	15	14	4	2	0	76	42	118*	**Total**

MM=*Ad hoc* interview following evaluation questions
KII=Key informant interview using semi-structured questionnaire
FGD=Focus group discussion using semi-structured questionnaire
M=male, F=female
*There were 10 instances of individuals who participated in more than one interview

Table 2: Distribution of stakeholder type, by country and sex

	Costa Rica		El Salvador		Guatemala		Honduras		Panama		All countries			
	M	F	M	F	M	F	M	F	M	F	M	F	M+F	
G1	6	4	-	-	5	3	4	1	-	-	15	8	23	**G1**
G2	8	17	7	2	11	4	2	1	2	-	30	24	54	**G2**
G3	-	-	-	-	23	8	8	2	-	-	31	10	41	**G3**
Total	**14**	**21**	**7**	**2**	**39**	**15**	**14**	**4**	**2**	**0**	**76**	**42**	**118**	Total

G1=stakeholder group 1, **G2**=stakeholder group 2, and **G3**=stakeholder group 3.

The evaluation used quantitative performance measures provided by RCCP, which were included in their progress reports submitted to USAID (Annex V). Most importantly, the evaluation relied on qualitative tools or instruments to uncover the nuances of the integration of regional efforts in mitigation and adaptation to climate change, as well as environmental management systems in the CAFTA-DR countries. Knowing what works, and why, will enhance informed managerial decision-making and program development.

The evaluation questions were associated with different **themes** as follows: Evaluation Question 1 was associated with *impact*; Evaluation Question 2 with *alignment*; Evaluation Question 3 with *capacity development;* and Evaluation Question 4 with *sustainability*. To the extent possible, the Team applied a before and after approach to answer the evaluation

questions. This approach triggered explanations of how, when, in what ways, and to what extent the RCCP has achieved something beyond the quantitative performance indicators. In addition, for each evaluation question the Team incorporated, to the extent feasible, an analysis of possible differences associated with gender or social groups, particularly historically excluded groups (youth, people with disabilities, indigenous populations, etc.).

The Team presented preliminary findings to different stakeholders in San Salvador, El Salvador on June 16, 2017 (CARE, CATIE, IUCN, USAID/CAM) (Annex IV). The feedback received was processed for the preparation of this report.

Quantitative and qualitative analysis

Quantitative performance indicators were used to assess advancement of the Program against their expected and agreed milestones or rates (Annex V). The Performance Indicator Tracking Table (PITT) is included in Annex VI. Qualitative analysis of information gathered through direct observation, semi-structured interviews, and focus groups was based on a guide with open-ended questions related to each of the four proposed questions and also linked or mapped to eight standard indicators (SIs), three custom indicators (CIs), and four custom CAFTA-DR (CAFI) indicators in the RCCP Performance Monitoring, Evaluation, and Learning Plan (USAID, 2017).[17]

As the first step in the analysis, the Team prepared field notes used to identify key information as topics for assessing the three RCCP components. In the second stage, the Team compiled lists of recurrent topics or issues and arrived at a consensus regarding the most important and relevant ones. The third stage of data analysis entailed coding interview responses according to the most relevant topics. The last stage was the detailed analysis of the combined coded responses to identify the dominant responses regarding the three components in terms of the four USAID questions that are linked to SI, CI, and CAFI.[18] Originally, only responses provided by at least three participants, or interviewees representing at least two stakeholder categories, were considered as sufficient evidence for a finding. This criterion, however, required re-consideration in light of the limited number of informants and/or their credibility.

Evidence to support the conclusions and findings of this evaluation was also collected by a close examination of key studies and training material produced, as well as through direct

[17] Development of the Monitoring and Evaluation Plan (ME Plan) is an essential step to manage the process of assessing and reporting progress towards achieving project outputs and outcomes, and to identify what evaluation questions will be addressed through evaluation. The Monitoring, Evaluation and Learning (MEL) Plans contribute to the effectiveness of the CDCS-level Performance Management Plan (PMP), as well as the project itself, by assuring that comparable data will be collected on a regular and timely basis. http://usaidprojectstarter.org/content/project-mel-plan. In fact, the MEL Plan specifies roles and responsibilities. The Performance Monitoring and Evaluation Plan (PMEP) includes the Project Logical Framework and Performance Management Indicators Table with necessary methods and clear responsibilities for collecting and reporting data, as well as data sources and assumptions. http://pdf.usaid.gov/pdf_docs/PA00KDPC.pdf

[18] Harden, A. et al. (2004), Applying systematic review methods to studies of people's views: an example from public health research. Journal of Epidemiology and Community Health, 58, 794-800; Thomas, J. et al., (2004), Integrating qualitative research trials with trials in systematic reviews, British Medical Journal, 328, 1010-1012.

observation of sustainable land management practices and adaption mechanisms conducted by participating institutions and [indigenous] communities at the priority sites. Of particular interest is how best practices implemented (in the areas of agriculture, forest management, reforestation, agroforestry, site restoration, silvopastoral systems, coffee and cacao plantations, biodiversity conservation, timber and non-timber cottage industries, etc.) improved the livelihoods of participating rural families. The Performance Monitoring and Evaluation Plan (PMEP) indicators may represent a measure of performance for accountability in resource use, but they may not properly represent the complexity of the processes being assessed.

3.3 EVALUATION LIMITATIONS

- The Team used qualitative methods to compensate for what the quantitative indicators do not explain. However, relying extensively on qualitative data can also have the limitation of not being representative and resting on anecdotal information. To compensate for these potential limitations, the Team conducted the data collection and analysis systematically by triangulating across multiple sources (stakeholder categories) and methods (individual, focus groups, and on-site observations) to ensure the reliability and validity of findings and conclusions.
- The Team could not visit the work sites in Panama and Nicaragua, as stated in the SOW, due to the length of time required to obtain travel clearances and visas. In Guatemala, the Team visited one out of five municipalities in the Lachuá Region, one of 25 communities in Cerro San Gil, Izabal, and only one of four Biocenters managed by FUNDAECO.[19] In Honduras, due to security restrictions, the Team visited La Ceiba, but not the Sico-Paulaya region.
- Frequently, appointments for interviews were confirmed on time, but there were instances when an interview was performed with an individual assigned to replace the designated interviewee.
- Some of the people interviewed did not respond to the questions, and in some cases the responses were vague or reserved.
- The Team spent too much time traveling compared to the time utilized for interviews.
- It was not clear from the beginning if the priority territories were REDD+ implementations for the carbon market.

[19] Biocenters (BioCentros) are properties that will act as training grounds (tree nurseries) for communities to learn about production methods of products that can be produced in ways that are more environmentally sound (http://www.fishwildlife.org/files/SWingsProjects_17_18_wo_budgets.pdf).

4. FINDINGS AND CONCLUSIONS

4.1 QUESTION 1: IMPACT

What have been the most significant intended and unintended environmental, social, and economic results achieved to date by RCCP? 1.1. What have been the main internal and external factors that have influenced the achievement or non-achievement of RCCP's expected results as planned?

4.1.1 Findings

Deforestation and land degradation in Central America have not been arrested; both processes have contributed to GHE emissions and reductions of carbon stocks. In response to this, a proposal was made to the UNFCCC in 2005 by a group of countries to include a mechanism for Reducing Emissions from Deforestation and Forest Degradation, conservation and sustainable forest management, and increased carbon stocks (REDD+).

In this context, and in the interest of several countries that are members of SICA throughout the CCAD, RCCP was designed to assist the REDD+ initiatives. When the Program started operations in 2013, the reality of each country was diverse in relation to REDD+, and each was at a different level of knowledge and advancement (readiness).

RCCP visited each country and carried out a diagnosis to evaluate their *status quo*, identify possible Program supporting frameworks, and develop "tailor-made," demand-driven strategies.

The Program implemented a sustainable landscapes approach to address climate change in order to support the Central American countries. As the Program continued, the countries found that:

- Carbon markets were not functioning as anticipated; it was found that the ongoing floor price of a ton of equivalent CO_2 (tCO_2e) was $5, while the beneficiaries were anticipating $16 per tCO_2e (FGD9 G2, KII13 G1, KII21 G2);
- TERRA helped countries to calculate the breakeven prices per tCO_2e;
- Access to carbon markets was more complicated than anticipated; the countries either did not meet the required financial expertise to prepare REDD+ proposals or did not have the financial resources to hire experts (see Annex X)[20]; and,

REDD+ was not designed to address urgent needs such as food security and livelihoods. Some of the interviewees agreed that the vision of REDD+ was not sufficiently relevant to the The evaluation found that RCCP has developed practical methodologies and tools to help different countries move forward on customized "Reducing Emissions from

[20] The Program provided support to submit proposals for countries to access the carbon markets that were available to them through the results-based payment program form the Carbon Fund. RCCP supported proposals submitted by Costa Rica, Guatemala, and Dominican Republic to access REDD+ results-based payments. The Carbon Fund program provided technical assistance to complement other funding sources such as FCPF and UNDP.

Deforestation, Forest Degradation, Conservation and Sustainable Management" issues (REDD+). The Program learned how to develop national agendas following a common methodology that included consultation, free and informed prior consultation, and social and environmental safeguards aligned with commitments and international agreements, including economic development options to benefit women, indigenous, and forest-dependent communities. There were numerous activities conducive to building local capacity. Knowledge and skills were transferred from end-users to planners in central government offices. Centro Clima was created as a regional private-public partnership to provide specialized meteorological services and inputs needed to craft tools to help stakeholders in different sectors decrease their vulnerability associated with climate change. Thus, Centro Clima is a regional asset. Coffee Cloud and Clima Pesca are two apps praised by the end users, but their sustainability depends on suitable inter-institutional arrangements.

- The evaluation found that RCCP has developed practical methodologies and tools to help different countries move forward on customized “Reducing Emissions from Deforestation, Forest Degradation, Conservation and Sustainable Management" issues (REDD+). The Program learned how to develop national agendas following a common methodology that included consultation, free and informed prior consultation, and social and environmental safeguards aligned with commitments and international agreements, including economic development options to benefit women, indigenous, and forest-dependent communities. There were numerous activities conducive to building local capacity. Knowledge and skills were transferred from end-users to planners in central government offices. Centro Clima was created as a regional private-public partnership to provide specialized meteorological services and inputs needed to craft tools to help stakeholders in different sectors decrease their vulnerability associated with climate change. Thus, Centro Clima is a regional asset. Coffee Cloud and Clima Pesca are two apps praised by the end users, but their sustainability depends on suitable inter-institutional arrangements.
- people or their current conditions, and that it would have been better to have a stronger linkage with development strategies, not just as related to forest development

The Program's Consortium had to adapt and develop common definitions, practical methodologies, and tools to help different countries move forward on customized REDD+ issues. Thus, the SL component of the Program provided strategies and instruments that each IP in the Consortium developed and transferred. The construction of REDD+ strategies required the implementation of participatory processes that led to a national approach to safeguards associated with consultation processes, FPIC, the establishment of safeguard information systems, and systems for monitoring, reporting, and verification (MRV).

Several persons interviewed in different countries claimed that one significant intended effect or result for restoration of landscapes has been the Restoration Opportunities Assessment Methodology (ROAM) as a tool for planning, and they described how the application of this tool has opened windows for discussion at the ministerial levels, not only

on landscapes but also on water, agriculture, and tourism. As a result, Costa Rica, the Dominican Republic, El Salvador, Guatemala, Honduras, and Nicaragua have identified restoration opportunities, produced maps, obtained economic data, and are moving on to consolidate their National Restoration Strategies. In fact, Guatemala's Restoration strategy was approved in 2016, after a consultation process.

Mitigation and adaptation synergy (MAS) as a tool "was considered in the Program to respond to countries' requests, not necessarily to be implemented in the pilots." The tool has four features: analysis based on the magnitude of ecosystem services, supply and demand functions, provision of spatially explicit information, and landscape assessments and planning. It is possible to assess trade-offs between environmental services such as biodiversity, carbon, water, and scenic beauty, and the assessments can be done at different levels (national, landscape, and plot). This tool can be applied to determine the impact of previous activity, but also used for future interventions based on available information. The impact of MAS today (using only the concept provided by CATIE), includes:

- The Honduran government has incorporated the concept and its importance in addressing climate change responses (policy statements on the *Human Face of Climate Change and National Climate Change Agenda*);
- El Salvador piloted a MAS exercise, identifying and assessing the breadth of MAS and ecosystem services nationally; it helped the Ministry of Environment and Natural Resources in El Salvador (MARN-ES) develop the adaptation-based mitigation approach in REDD+;
- Guatemala is harmonizing a MAS co-benefits (intersectoral) monitoring system with its national climate change information system and its REDD+ MRV system.

Even though Honduras is very supportive of the MAS tool, staff from the Ministry of Energy, Natural Resources, Environment, and Mines (MiAmbiente) that was interviewed (FGD12 G2[21]) mentioned that "*it would have been desirable to have less technical support and have more implementation, and the program should have started right with MAS.*"

The RCCP also supported the establishment of **platforms or networks** that have transcended into processes and decision-making, and have included the participation of key stakeholders and sectors to ensure medium- and long-term impacts on REDD+. One of the processes carried out by RCCP was the FPIC to enhance the participation and consultation of indigenous communities from Guatemala and Honduras, to protect their rights and safeguard their way of life, and to encourage participation in the decision-making processes of REDD+ initiatives. In Guatemala, FPIC was applied in Alta Verapaz; indigenous women who participated in this process indicated that they were more apt to attend meetings, to become involved in activities within their community, and to work on issues related to the forest and its plantations. As expressed by one indigenous woman (MM9 G3), "*I do not stay and wait to be called for a meeting; now once I know that something is going to happen in the community, I start demanding to be part of it.*"

[21] Henceforth, all references to field notes: Meeting Notes, KII, or FGD, are coded to keep them anonymous. These field notes are with USAID for safekeeping.

Several SICA country members (Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, and Panama) made a pledge to the Bonn Challenge to restore 5 million ha by 2020. The Bonn Challenge, established in 2011, is the most important international initiative for forest restoration. El Salvador and Costa Rica were the first countries to make this commitment in 2012, followed by Nicaragua in 2015. Nevertheless, obtaining financing and strategies to carry out this commitment has not been achieved in many of these countries.

Under the leadership of governments responsible for national REDD+ strategies, RCCP facilitated the creation of governance platforms (Climate Change Platform in Honduras) and the establishment of Safeguards Committees in Guatemala and Honduras in 2016. In El Salvador and the Dominican Republic, conditions have developed to allow for the fruition of efforts in 2017. RCCP supported the dialogue and preparation of proposals for the other technical social platforms required by the REDD+ process. Some examples of this support are MRV platforms in Guatemala, Honduras, and Costa Rica, supported by CATIE-IUCN; consultation and participation, by IUCN; and safeguards by CARE. Safeguards mitigate the risk of social and environmental impacts posed by climate change consequences or project investments, and also promote benefits by increasing the security of land use, empowering stakeholders (mainly vulnerable groups such as indigenous people and women), and improving biodiversity and forest governance.

RCCP introduced the national safeguards approach and facilitated a process at a regional and national level (workshops and dialogue), including Regional Guidelines to facilitate the understanding and application of safeguards in REDD+ strategies crafted through discussion and collaborative construction.

The Regional Guideline tool[22] was socialized and validated in August, 2016, and has allowed the countries to define a critical road map that sets out the generic steps to build the national approach to safeguards. Its impact is such that it has set in motion **unintended outcomes** under the RCCP Program:

- Indigenous groups, members of the Guatemalan Safeguards Committee, have reviewed the Climate Change Law to incorporate aspects of rights and safeguards, and the Law has been translated into five indigenous languages;
- In Honduras, because of the involvement and participation of indigenous women in the Climate Change platform, different mechanisms have been proposed and are underway to help women to obtain land titles and to participate in discussions on co-benefits [multiple sectors or users]; and
- In Honduras, there was a conflict between the government and the Miskito communities regarding the agreement on resource management issues, and this group was skeptical of participating in REDD+ activities. Throughout FPIC and safeguards processes, misunderstandings were clarified, and now the Miskito are part of Climate Change Platform and Safeguards Committees.

[22] PRCC-CARE-USAID, 2016, Regional guide on general guidelines for the incorporation of safeguards from Cancún in national REDD+ strategies in the countries of Central America and the Dominican Republic. Guatemala.

Priority Territories.[23] According to CATIE (2013, p. 3, 46-7)[24], within three priority territories (Greater Darien in Panama; Selva Maya Forest Ecosystems in Belize, Guatemala, and Mexico; and the Moskitia Coast Forest in both Honduras and Nicaragua) specific pilot projects were meant to be testing grounds and a source of knowledge for "scaling up" and "scaling out" results related to governance platforms, participation of local communities and indigenous peoples, testing MRV protocols, developing market proposals, and testing landscape-scale management. This and other information, tools, lessons learned and best practices will be systematized and used to catalyze and strengthen similar processes in other sub-national sites and also to support national-scale REDD+ policy development. The Program relied on pilot projects and public-private partnerships to develop and test biophysical and social tools related to Sustainable Landscapes.

Sico-Paulaya

RCCP efforts in Sico-Paulaya, Iriona-Honduras (30,000 inhabitants; 4,289.4 km² where 71 percent of its territory is under forest cover) responded to the MiAmbiente request, which identified this area as a priority to be addressed within the implementation of the national REDD+.

- ***Governance strengthening*** through the establishment of the *Mesa Ambiental y de Producción de Sico-Paulaya* (Environment and Production Roundtable of Sico-Paulaya, or MAPSP, integrated by 48 local organizations) and promotion of its interaction with relevant sub-national and national authorities. This included technical support, exchanges of experiences, courses, and workshops to improve participation in national consultation processes in the development of REDD+, and other protocols and mechanisms such as the Voluntary Association Agreement between Honduras and the European Union to export timber products verified to be from legal sources. MAPSP experiences are being expanded and replicated by MiAmbiente in a territory northeast of Olancho.
- In Sico-Paulaya, ***cattle ranching*** is one of the main activities that exerts tremendous pressure on the natural resources of the area. RCCP trained ranchers on silvopastoral systems (80 agricultural producers) and livestock management practices through field schools (ECAs in Spanish) in four communities. A female rancher who owns 50 calves and was interviewed told the Team about her satisfaction to learn new methods for preparing feed blocks for cattle and seeing the resulting animal growth; however, she was concerned that this requires imported inputs to manufacture the feed blocks.
- Governability in the region is very low, and violence is widespread as a way to resolve conflicts. The Honduran government (MiAmbiente) has expressed a very high, positive opinion of the silvopastoral work and support provided by the Program to the local governance platform MAPSP; however, MiAmbiente staff in Tegucigalpa did not seem to be aware that the MAPSP members were very concerned about CATIE's exit, scheduled for September, 2017. All the people interviewed by the Team belonging to the MAPSP expressed their dismay at the

[23] USAID/CAM (2017) Statement of Work for the RCCP Final Performance Evaluation.
[24] CATIE (2013). Technical Application in Response to Request for Applications (RFA) 596-12-000001, Regional Climate Change Program, Turrialba, Costa Rica, January 8, 2013.

lack of proper response to the question regarding CATIE's exit from the priority territory that used more than $570,000 since 2013 (FGD14 G3, FGD15 G3b, FGD16 G3b). The draft exit plan was shared with the Team on June 2, 2017[25]. Had the RCCP Work Plan 2016-2017 and the "exit plan" been socialized with end users or beneficiaries, and with fluid and effective communication between MAPSP and CATIE's Director of Foreign Affairs between October, 2016 and May, 2017, this disappointment could have been prevented.

- RCCP and Fundación Madera Verde trained agroforestry cooperatives in the Sico-Paulaya area to achieve organizational cohesion and compliance with various legal requirements.[26] As a result, value chains of forest products were analyzed, studies were developed for the commercialization of non-timber forest products, and between 2013 and 2016, $600,000 in export revenues of legal timber were recorded.

Lachuá Region

The Lachuá Region located in Alta Verapaz, Guatemala, is a national park covered with tropical rainforest (145 km²) where approximately 55 communities live in the buffer zones (20,000 inhabitants). IUCN has been working for the last 20 years with several communities, along with the Lachuá Foundation (FUNDALACHUA), which is made up of local producer associations and second level community development councils. RCCP planned to develop a voluntary carbon project in this area; however, based on the technical and financial feasibility results, the project idea was suspended, and the Program decided to continue with the development of the **cocoa agro-chain** for a specific market niche, as an agroforestry alternative in order to promote economic development in the territory, increase carbon stocks, and reduce the pressure for deforestation.

Board members of FUNDALACHUÁ informed the Team that it is selling treated cacao seeds at double the market price while admitting to not having previous experience at promoting profit oriented development programs. Interviewed farmers reported that they had no knowledge of basic managerial economics for the cacao systems being promoted. Farmers have maintained the high-quality standards set by the buyers. The Team also found that five out of 55 communities in the Lachuá area promote cacao and mahogany with cacao farming; one site they visited lacks the trained personnel and financial resources needed to successfully complete the task at hand.

The Lachuá communities are not sure who benefits from REDD+, but for the moment they will continue their agroforestry, production, and conservation work with or without REDD+. They said that "*the important thing is to work with the different communities and partners, and the protection of the Lachuá natural area*" (FGD6 G3a). While some farmers are interested in planting trees to enhance the tropical forest, some realized that "*there is pressure on the land to generate income or contribute to household food security*."

[25] The Team verified that there was an interruption in communication between MAPSP and CATIE between October, 2016 and May, 2017.

[26] Forest management training included forest inventories and management plans, low intensity lumbering, and monitoring lumber from the forest to the market, among other topics (FGD14 G3).

Public Private Partnerships (PPP)

In CATIE (2013, p. 3-4), it is mentioned that, "…in addition to priority sites, the RCCP will establish Global Development Alliances (GDAs) with the public and private sectors to address jointly defined business and development objectives. The alliances will be co-designed, co-funded and co-managed by partners so that the risks, responsibilities, and rewards of the partnerships are equally shared. Potential themes for global development alliances are: sustainable watershed management, disaster risk reduction, model forests, a regional clearinghouse, and carbon markets and finance." Later on, RCCP modified the GDAs to PPPs in order to consolidate early actions of REDD+ projects and also to achieve leverage funds (FG7 G2).[27] Only CARE accomplished this goal, with one PPP that leveraged $1.7 million with a $100,000 investment and became a partner of an existing REDD+ project in 2016. Due to the slow implementation progress, time limit constraints, and political buy-in effort involved in developing the PPP, USAID determined not to pursue more PPPs in the sustainable landscapes component. USAID programming in the region supports the U.S. Strategy for Engagement in Central America, which lays out an interagency-driven vision for Central America under the three pillars of prosperity, governance, and security.[28]

CARE considered five options for PPPs and chose the initiative of the Foundation for Eco Development and Conservation in Guatemala (FUNDAECO) [29], the implementing partner of a voluntary carbon market project under REDD+. The other partners under this option were:

- Ministry of the Environment and Natural Resources in Guatemala (MARN-GT), CONAP, National Forest Institute in Guatemala (INAB), and Ministry of Agriculture, Livestock and Food in Guatemala (MAGA) being the government agencies partners
- Althelia Climate Fund and Livelihoods Fund, the regional and local private investor; and
- RCCP-CARE as facilitators.

This REDD+ project seeks to generate income to ensure sustainable protected area management (Cerro San Gil, 60,000 ha, of which 60 percent is a national forest reserve) while supporting the resilience of 25 indigenous and ladino communities to climate change impacts (661 participants).[30]

FUNDAECO engaged 25 communities in conservation activities through the establishment of agroforestry systems, and the sale of approximately 1.8 M tCO_2e, which will be sequestered through the establishment of 1000 hectares of tree plantations. About 200

[27] At least one other PPP was to be developed under the adaptation component, as explained below.

[28] CATIE (2015). Request (reviewed June 9, 2015) to modify the description of the USAID Climate Change Program. (Cooperative Agreement No. AID-596-A13-00002). Turrialba, Costa Rica.

[29] FUNDAECO has worked on conservation and sustainable development in the Caribbean Region of Guatemala for over 25 years.

[30] There are 10,788 inhabitants: 4,732 in 14 *Maya Q'eqchí* communities (44 percent), 4,913 in eight ladino communities (45 percent), and 1,143 in four mixed communities (11 percent) (A. Zambrano and C. Rodríguez Olivet, "Ideas iniciales para la construcción del GDA CARE, Cuarto Borrador," Junio 2015. RCCP-CARE, Guatemala).

community members have been trained in the establishment and management of agroforestry systems, and have received technical assistance, inputs, and administrative-legal advice to present documents for small land-holders forest management and reforestation incentives. A limitation found by the Team for carbon market projects like this is land tenure. According to an informant who lives in Cerro San Gil and who is not participating in the FUNDAECO project, "not having land, means not being eligible." This puts the physical integrity of the forest at risk and can motivate internal or external irregular migration because of limited local opportunities.

Centro Clima (Clearinghouse)
Under the Adaptation component, CATIE pursued the consolidation of Centro Clima (Clearinghouse) as a network of organizations from the public and private sectors to provide meteorological services, analysis, and processing applications that could help regional, national, and local stakeholders in economic sectors such as agriculture, fisheries, and disaster preparedness (PRCC-USAID and CRRH-SICA, 2017). This is described below.

Adaptation component

The Climate Forum is an initiative that has been led by CRRH. It periodically convenes meteorological experts from all over the region to prepare climate forecasts for the following four months. RCCP-IUCN has provided logistics support to the organization for seven Climate Fora, as of December, 2016. The Program has used the Fora as an opportunity to update the participating experts and authorities on the advances in the development of Centro Clima.

RCCP-UICN installed videoconference equipment in the meteorological institutes of the eight CRRH member countries and the CRRH office, to allow them to be connected and to share information and data more frequently, without the need to meet in person. This videoconference system could be used to update the climate forecast monthly rather than wait for the meeting every four months.

Climate Meteorological service representatives interviewed have expressed satisfaction at being able to provide essential information for other economic sectors, including agriculture, fisheries, and health (FGD10 G2). Centro Clima was conceived with a smaller scope or scale than what is being developed through the Program, and the result is of such magnitude that, according to an informant (KII21 G2), Centro Clima is "*the best bet*." Also, another informant (FGD3 G1) perceived Centro Clima "*as an attempt to develop a regional agenda*." Centro Clima was successfully built based on trust among all the meteorological services. As a result, these institutions have endorsed the transfer of its administration from the Program to the CRRH. Centro Clima has had a significant, positive impact with decision makers (Environment Ministers), and the Team was told that some ministers are already using the data and are interested in further applications such as uses for disaster mitigation.

Centro Clima supports two tools or applications (apps[31]), Clima Pesca and Coffee Cloud, providing climate data gathered from meteorological organizations in the region. The apps are related to productivity, livelihoods, and biodiversity, as well as to climate change.

Clima Pesca is an initiative of the OSPESCA to inform the fishing sector of climatic variability and possible risks associated with climate change, as well as to adapt efforts to increase production and ensure food security (KII24 G2). OSPESCA, prior to the existence of RCCP, had already identified the importance and necessity for this sector to understand and use climatic information; it produced a bulletin transmitted electronically to its members. Under the RCCP, and with the technical assistance of DAI, Clima Pesca has been designed as an alternative that can reach out to more stakeholders while remaining part of the Centro Clima. *"It has turned our simple newsletter into a modern-day communication tool,"* remarked an interviewee (KII24 G2). This application is expected to be launched in July, 2017. As stated by several persons interviewed, both Coffee Cloud and Clima Pesca should be continued, while exploring the opportunity to create new applications for other productive sectors (for example, sugar cane and pineapple).

Coffee Cloud was designed as an important and necessary tool for coffee growers (upon their request) that could be easily used by anyone that has a smart phone. The staff from the National Institute of Seismology, Meteorology, and Hydrology (INSIVUMEH) considers its contribution to be important to this application because it provides climate data and information (FGD10 G2). This staff perceives that the National Coffee Association of Guatemala (ANACAFE) is a key institution that brings together the coffee growers in Guatemala to take on the role as the main facilitators for the use and management of Coffee Cloud. Based on Guatemala's experience, the Costa Rican Coffee Institute (ICAFE) requested support from the Program, and by 2016, RCCP had developed the application (Coffee Cloud) and adapted it to the needs of this country (MM RCCP). The evaluation team was informed that Honduras, El Salvador, and Nicaragua have requested similar support for their coffee sectors in 2017.

Environmental Management under CAFTA-DR

The Environmental Management component under CAFTA-DR incorporates considerations of how climate change impacts environmental decision-making in Central America; it is a follow-up on recommendations made by ECODIT (2011).[32] Its inclusion in RCCP in September, 2015 was slow at the beginning due to bureaucratic procedures such as a slow transfer of funds to RCCP (USAID, RCCP Annual Report 2016). The group of technical experts participating in this component is mentored by the U.S. EPA, and there is a long history of professional collegiality between them. None of the activities carried out under this component have any interaction with the work in the other components in the Program.

Through CAFTA-DR, environmental content has been introduced to the CCAD agenda on economic development. Knowledge is maintained and shared, and the appropriation of technology and protocols depends on the needs of the countries. The group has achieved

[31] https://english.stackexchange.com/questions/153696/app-or-app-when-i-refer-to-it-in-a-formal-paper
[32] ECODIT (2011). USAID CAFTA-DR Environment Program Assessment, Arlington, VA.

positive recognition from USAID staff and amongst the government officials interviewed (MM EPA, FGD12 G2, FGD13 G1).

4.1.2 Conclusions

Self-development capacities in REDD+ were built progressively. The REDD+ option has been incorporated and linked to other national and local development policies and strategies, as well as to other initiatives that contribute to emissions reductions. Countries in Central America are now much more active, have made progress in REDD+ compared to four years ago, and are moving forward to finalize the REDD + National Strategy by 2018.

RCCP has supported these countries to achieve developed institutional and professional capacities, and it has provided technical assistance to their national REDD+ strategy or restoration strategy. RCCP has helped people learn and act differently. However, the ability of these countries to mobilize funds to fulfill their pledge remains to be seen.

In Sico-Paulaya, Honduras, RCCP's lack of fluid communication with MAPSP members between October 3, 2016 and May 31, 2017 could have a high political cost for future work.

The successful PPP developed by RCCP-FUNDAECO in Cerro San Gil, Izabal, Guatemala, with its 17 fold return on investment, is an example of how to build trust and understanding among the private and public sectors, and provide ladino and indigenous communities access to voluntary carbon markets.

Centro Clima (clearinghouse) is another PPP under the Adaptation component of the Program and it is very close to fruition. CRRH has successfully compiled and managed climatic data and information. Centro Clima hosts data and has developed dynamic tools to increase knowledge and applications with end users in coffee production and fisheries. CRRH and its members have endorsed the responsibility they will take on once they manage the platform.

The CAFTA-DR component has helped to reactivate CCAD as a regional leader, with an impact on regional, national, and local levels, even though it does not operate in any of the priority areas.

4.2 QUESTION 2: ALIGNMENT

To what extent did the results of RCCP align with national and regional climate change strategies, needs and priorities in Central America?

4.2.1 Findings

The Program learned about and discussed climate change strategies, needs, and priorities with Central American countries at the beginning of the implementation period (in the framework of the Regional Strategic Program for the Management of Forest Ecosystems-PERFOR, UNFCC, and the Biodiversity Convention). The regional agenda was

established and approved at CCAD, "Regional Environmental Strategy Framework 2015-2020," at which all countries were represented by their environment ministers (KII12 G1). At the national level, not all countries were in the same situation regarding REDD+ (human capital, project development, political will, and socioeconomic conditions) and on how to respond to their individually acquired commitments. The Program responded to the needs and priorities of the countries, to support them either to access carbon markets and implement REDD+ activities, or to provide institutional strengthening and develop capacities to prepare national REDD+ strategies. Some countries were more advanced than others, and the following is how RCCP responded and aligned to their demands.

As far as regional alignment is concerned, "*Regional alignment is more difficult because the national interest tends to dominate*." "*Among the European countries the regional interest is above the national level but in Central America it is the opposite*." (FGD13 G1 and MM15 G1, respectively). Because national governments keep changing, the priorities, needs, and strategies may also change, and thus the program and its expected results change. Two contrasting situations depict how changes in governments and policies can affect the scenario where RCCP operates. Two years ago in Guatemala, under a different administration, there was more interest in environmental issues from the national government; now MARN in Guatemala is not as strong or interested (FGD3 G1). In contrast, Honduras was not very interested in rural development and environmental issues four years ago under a different administration, but now it has realized that it is lagging behind other countries in the region. Honduras has requested special support to build its climate agenda, with many donors, but without a strategy or orientation. RCCP assisted MiAmbiente to develop that strategy, including safeguards, consultation, and FPIC (FGD12 G2).

Key informants agreed that CCAD requires training and mentoring to implement its regional mandate within the Framework of the Environmental Regional Strategy 2015-2020 and PERFOR (KII12 G1, KII21 G2, FGD12 G1, and FGD13 G1). RCCP has worked closely with individual countries adaptively, developing and implementing agendas according to their needs, but in alignment with their regional commitments.

For RCCP, the processes, instruments, and methodologies promoted in forest landscape restoration and the implementation of the conservation rights approach (consultation, FPIC, and social safeguards), as well as the access to information for decision-making (Centro Clima and information networks) have been part of, and will continue to be, in IUCN's agenda and partners beyond the projects themselves. By the same token, governments have signed long-term agreements at the international level (e.g. Bonn Challenge, UNFCCC, and compliance with social and environmental safeguards in REDD+) that go beyond the lifetime of RCCP.

The Program inputs on different topics constitute a set of [solutions] in and outside the REDD+ mechanism that contribute to compliance with commitments and international agreements, such as the International Labour Organization Convention 169 on Indigenous and Tribal Peoples (adopted in 1989), The Biodiversity Convention, and the Convention on the Elimination of All Forms of Discrimination against Women, as well as the national conservation objectives, the rights approach (consultation and PFIC), access to information,

and economic development options that especially benefit indigenous and forest dependent communities.

At the beginning of the Program, REDD+ was not a well understood task, but it was a priority for RCCP to align REDD+ closely with the policies of those countries in order to reduce deforestation and vulnerability, and create employment by using the REDD+ development pathways following national environmental laws and work plans. By attending direct requests from governments, RCCP-TERRA-CATIE were well aligned with the state policies and plans for REDD+ initiatives such as ER-PIN and ER-PD[33]. The principle of voluntary collaboration has always been applied; when there is adaptation to the institutional scenario, work relationships can be fruitful.

Regarding regional strategies and needs, USAID/HN and CATIE perceived a positive alignment of results in Sustainable Landscapes. TERRA, based on their successful results (ER-PINs and ER-PDs delivered to the World Bank), perceived that there was a very good alignment with the national programs requesting their input (KII13 G1). Regarding the Adaptation component, it is an information-centered initiative to support decision-making under a climate change context. RCCP did not have the mandate to analyze, design, or implement adaptation measures or policies.

An interviewee from MARN, Guatemala, mentioned that RCCP adapted to the needs and requirements of the country. *"National alignment, by design, responds to a priority, safeguards, or something else. The Program supports the countries in complying with the Paris Agreement."*[34]

At the very local level, for example, the Program had to align with community needs in Lachuá, Alta Verapaz, Guatemala, opting to promote the cocoa agro-chain to increase people's income and to ensure their ability and willingness to continue as the stewards of Parque Lachuá. Originally, the area surrounding the National Park was thought to be a potential REDD+ site, but economic analysis revealed that this option was not feasible.

Even though there are 11 items in the RCCP Gender Action Plan (CATIE, 2013, p. 90), the Team is not aware of any formal comprehensive reporting on the Program's achievements. Findings from the field and from the PITT show that women have participated as implementers or trainees in various activities. However, the majority of women (seven out

[33] Emission Reduction Project Idea Note and Emission Reduction Project Development, respectively.
[34] The Paris Agreement entered into force on 4 November 2016, signed by 155 out of 196 countries, including RCCP countries. RCCP countries, by signing the agreement, reiterate their role in emission reductions through its three program components. The main purpose of the Agreement is to strengthen the global response to the threat of climate change by keeping a global temperature rise this century well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius. Additionally, the agreement aims to strengthen the ability of countries to deal with the impacts of climate change. To reach these ambitious goals, appropriate financial flows, a new technology framework and an enhanced capacity building framework will be put in place, thus supporting action by developing countries and the most vulnerable countries, in line with their own national objectives. http://unfccc.int/paris_agreement/items/9485.php).

of eight) interviewed with the help of translators in the communities surrounding Lake Lachuá, Alta Verapaz, Guatemala, were extremely shy in discussing issues relevant to their personal and community development, very possibly because the Team was a group of strangers. Most of the individuals leading and describing economic activities in the area were men. In Cerro San Gil, Izabal, Guatemala, only one woman was interviewed by a member of the Team and only two women from the MAPSP, Sico-Paulaya (out of ten persons) participated in interviews and group discussions.

Adaptation Component

Prior to RCCP, there were processes and systems to compile data at the regional level, such as the Central American Climate Database and the Regional Systems for Visualization and Monitoring, SERVIR; however, they were not used for sharing data and did not provide access to users outside the meteorological services. On the other hand, the climate model being used at the regional level was at a very large scale. Individually, countries used models at smaller scales, but they did not have the regional scope. The creation of the two applications, Coffee Cloud and Clima Pesca, in the Adaptation component, required an alignment between the CRRH, software developers (RCCP-DAI), and the regional end users (ANACAFE and OSPESCA). The foundation to create such a system was Centro Clima, with the goal of providing specialized services and the inputs required to craft a useful tool that could help stakeholders of different sectors diminish their vulnerability associated with climate change. RCCP has contributed to:

- Coffee growers have used information displayed by Coffee Cloud to assess *roya* infestations and other diseases such as "*ojo de gallo.*"
- Fishermen have used Clima Pesca to determine where to go fishing or decide not to go, as well as other types of decisions.

The process of consolidating Centro Clima with the applications required the stakeholders from the different countries to appreciate the availability of climatological information and sector-specific products that could help decrease vulnerability. The first beneficiary of Coffee Cloud was Guatemala, as this tool was designed specifically for that country. Both Costa Rica and Nicaragua requested adaptation of this app in 2016. Guatemala presented this tool during a regional meeting in El Salvador in 2017; at that time, El Salvador and Honduras requested adaptation of the app for their countries.

Environmental Management under CAFTA-DR

This component was incorporated into RCCP and in support of CCAD; thus, it is aligned with the regional strategies, needs, and priorities.[35] Work activities are part of a regional portfolio, but the countries have the opportunity to select activities.

4.2.2 Conclusions

At the outset of RCCP, the IPs realized that the countries had different starting points regarding their needs and priorities. Despite the existence of the Framework for the Environmental Regional Strategy 2015-2020 and PERFOR, systematic consultations took

[35] See section on Environmental Quality, in CCAD (Central American Commission of Environment and Development) (2014). Regional Environmental Strategy Framework 2015-2020, General Secretariat of the Central American Integration System, San Salvador.

place to characterize the *status quo* of the countries. Jointly with them, a strategy was developed to access carbon markets, implement REDD+ activities, strengthen institutions involved in natural resource management, and develop capacities to prepare national REDD+ strategies.

The regional political context has varied with different administrations, and this has caused changes or adjustments in national policies and priorities. Regional alignment may occur, but it can be disturbed temporarily or permanently, and there is little a regional program can do other than to adapt to the new situation.

The Team acknowledges that the sample of interviewees is less than desirable. However, it is difficult to imagine women in Lachuá (or at other sites visited) being assertive or taking leadership in meetings in the presence of men. While both men and women seem to be sensitized to participate in consultations and FPIC, and some women make a point to be included, the Team perceived that there is still a long way to go to claim that the Program has contributed to an equitable and just distribution of responsibilities and benefits in the rural households.

The Program learned how to develop national agendas following a common methodology that included consultation, FPIC, and social and environmental safeguards aligned with commitments and international agreements, including economic development options to benefit women, indigenous, and forest dependent communities. This has allowed a methodological common ground across countries while respecting their specific needs and priorities. These elements were more widely utilized in the Sustainable Landscapes and Adaptation components. This could be explained by the truly vast territorial spread and diversity of stakeholders in the sustainable landscape component compared to the adaptation component.

The creation of Centro Clima and the production of Coffee Cloud and Clima Pesca required the development of trust amongst stakeholders from participating countries in order to share data and knowledge, followed by an alignment of contributions into a production or method resulting in usable tools for decision-makers from different productive sectors. Needs alignment, knowledge of sectoral vulnerabilities, the availability of Centro Clima, and the know-how to design and develop applications by CATIE-DAI-IUCN made the production of useful sectoral tools possible.

4.3 QUESTION 3: LOCAL CAPACITY DEVELOPMENT

To what extent has USAID been able to build or strengthen local capacity in the region to address climate change issues?

4.3.1 Findings

By the end of 2016 (Annex VI):

- 955 persons were trained in Adaptation, or 51 percent of the LOP target; of those, 11 percent were female trainees.

- 384 persons were trained in Sustainable Landscapes, or 100 percent of the LOP target; of those, 41 percent were female trainees.
- 6,584 person hours of training were provided on brown issues under the CAFTA-DR component, or 57 percent of the LOP target.
- The proportion of female trainees as a percentage of the total trainees in Sustainable Landscapes was almost four times higher than in Adaptation.

There were numerous activities for local capacity development conducted by the Program to transfer knowledge and skills to different stakeholders at different levels: top-level government officials, medium and technical level officers, extension staff, and end-users of the products and tools. Each IP designed and developed a series of training events (workshops, short courses, master's program, etc.) to strengthen each country's capacities in the RCCP components. Fifteen and twenty-nine training events took place in the second and third fiscal years, respectively (USAID-RCCP, 2015 and 2016).[36] However, other than the general learning goal of the training events expressed in the training plans, there was no indication of how knowledge acquisition was measured. Ramos (2017)[37] addressed the institutional strengthening provided by RCCP in the Sustainable Landscapes and Adaptation components, applying a detailed questionnaire to 27 individuals.

Sustainable Landscapes Component

Under this component, there was training to: 1) facilitate carbon credits marketing proposals as an economic incentive to conserve tropical forests; 2) develop and deploy operation plans and mitigation measures addressing climate change stressors and vulnerabilities at different levels; and 3) develop integrated and harmonized REDD+ strategies, MRV protocols for forestry and related agriculture, and other land use initiatives potentially acceptable to the region.

- RCCP-TERRA developed economic and financial models for carbon market projects (ER-PIN and ER-PD) in Costa Rica, Guatemala, and the Dominican Republic. During the first two years of the Program, TERRA carried out two-day workshops in REDD+ Finance in Guatemala (18 presentations), and Panama (14 presentations).[38]
- FUNDAECO-CARE is the only PPP that the Program implemented in this component in Cerro San Gil, Izabal, Guatemala. FUNDAECO installed one Bio-Center with RCCP assistance, where it provides training (mostly in Spanish) in public health, forestry, and agroforestry management for 661 household heads in its zone of influence (three additional Bio-Centers were in place before FUNDAECO

[36] USAID-RCCP (2015), Annual Training FY Plan 2014-2015; and USAID-RCCP (2016), Annual Training FY Plan 2015-2016.

[37] Ramos, N. (2017). *Development of a baseline and assessment of progress related to institutional strengthening provided by the RCCP to social organizations in the Program.* Consultancy for the Regional Climate Change Program – USAID, CATIE, San Salvador, El Salvador.

[38] The learning goals of these trainings, for example, were not specific to ascertain the degree of knowledge acquired.

became involved with RCCP). Currently, FUNDAECO continues to operate with trained personnel and participants in its carbon market program.

- RCCP-IUCN has personnel from MARN in Guatemala and El Salvador, MiAmbiente, and MARENA in Nicaragua, amongst others, trained in the use of ROAM; this methodology includes 12-generic transitional options that reflect combinations of biophysical attributes plus a financial and economic component for decision-making. Staff from the ministries of environment who were trained by RCCP-IUCN implemented the methodology, and the Governments of El Salvador, Guatemala, and Honduras have been using it prioritize interventions since the end of 2016. MARN in El Salvador has expanded the use of 12 transitions to 49 on its own initiative.[39] Informants in Honduras revealed that the MAS has been used to support the restoration plan and MRV methodologies developed by RCCP-CATIE, but the country has also used ROAM.
- Both RCCP-IUCN-CARE provided training in FPIC at the community, municipal, district, and national level; interviewees attest to its effectiveness. RCCP-CARE developed a *Regional guideline for the incorporation of environmental and social safeguards for REDD+ in the national REDD+ strategies*. This tool is the result of five socialized "generic steps" in five countries for which workshops were carried out.
- RCCP-CARE aided the creation of national safeguard committees with the design of the national safeguards in Guatemala, Honduras, the Dominican Republic, and El Salvador. This was under the flagship of REDD+ national strategies supporting governance platforms for Consultation, FPIC and access to multiple benefits. "*CARE and IUCN not only coordinated workshops but also helped optimize financial resources assigned to the countries [joint workshops]*." (FGD7 G1 and KII4 G2). The Regional Guideline was validated in August, 2016. This is a tool used by the countries. One interviewee noted that "*it does not really matter if there are changes in the government; people are now empowered and will not let anyone play with them anymore.*" (MM7 G2). Because of the high degree of participation in the training processes [five generic steps], the resulting evidence is groups of sensitized and active citizens.
- RCCP-CATIE has provided technical assistance and training (special courses and workshops) in Costa Rica, El Salvador, Guatemala, Honduras, and Nicaragua to provide orientation on the concept, methods, and procedures used to facilitate the construction and implementation of MRV. Particularly, RCCP-CATIE trained personnel in Tegucigalpa and Sico-Paulaya on MRV and MAS, and MiAmbiente staff commented that both tools are relevant and that the government is better prepared to embrace the REDD+ agenda. RCCP-CATIE deployed ten MSc. students in different work sites to support Program implementation (Annex IX).
- There was also considerable training at priority territories in the planning and establishment of forestry, agroforestry, silvopastoral, and cacao systems in Sico-Paulaya, Honduras (CATIE-MADERA VERDE), Cerro San Gil, Izabal (CARE-FUNDAECO), and Lachuá Region, Alta Verapaz (IUCN-FUNDALACHUA) in

[39] While the expansion from 12 to 49 landscape transitions occurred in 2017, the training occurred in 2016. It is important to acknowledge that this national initiative uses a methodology transferred by the RCCP-IUCN last year.

Guatemala. Additional training took place in two territories: Darien in Panama and RAAN in Nicaragua. Interviews with producers in Guatemala and Honduras revealed the need for knowledge on basic managerial economic skills applied to their productive activities in order to be competitive[40] (FGD4 G2, FGD6 G3a, KII20 G2, FGD14 G3, MM9 G3, MM10 G3).

- According to Ramos (2017), RCCP has strengthened the governance mechanisms related to climate change, fostering empowerment and leadership of institutions, organizations, and national sectors, offering opportunities for interaction.

Adaptation Component

Under this component there was training to: 1) develop and systematize meaningful and useful climate data for various institutions, and distribute it to decision makers in the government and private sector, including communities and other key local stakeholders; and 2) devise distribution systems to provide climate change data and decision-making aid in a timely and user-friendly manner.

- CRRH is a 51-year-old institution that publishes climatic perspectives; currently it serves as a source of information for the Central American countries and the Dominican Republic. A Climate Forum is organized by CRRH every three months, during which meteorological information and knowledge are exchanged. "Climatic Perspective" for Central America offers a three-month rainfall forecast that has value for various sectors. "*In the earlier fora we dealt with long term climatic predictions [years], but we realized that it was important to shorten the time window for more practical purposes*" (FGD1 G2). The Program has financially and logistically supported the development of seven fora. Experts from agriculture, fisheries, energy, and other sectors participate in the Application Forum, which takes place immediately after the Climate Forum. During the Applications Forum, experts analyze the implications of the climate forecast and provide recommendations for their respective sector.
- The Program has sponsored seven meteorology MS students to study at the University of Costa Rica (mostly on-line, with two one-week face-to-face segments). The students remain working in their respective countries and institutions and are able to apply their knowledge and skills immediately.
- Centro Clima was built through a series of discussions and capacity building processes led by CATIE. In 2013, the Program had identified existing regional networks as partners for the development of tools in each of the priority topics. In 2014, there was a workshop with coffee, meteorology, and agriculture experts to identify the needs for a tool for the coffee sector. After that workshop, CATIE and DAI prepared a paper with the conceptual design of the coffee tool. No new network was created. The regional network of coffee institutes, PROMECAFE, already existed.

[40] In contrast to our evidence, according to IUCN (2016, p. 32), farmers in Lachuá are cultivating cacao in sustainable agroforestry systems, earning up to $10,000 per ha per year, compared to maize earnings of $60 per ha per year; this has developed interest in the national community platforms under the Incentive Program for Small Forestland Owners (PINPEP).

- CATIE prepared training manuals on coffee in Spanish for Guatemala and Honduras during 2015-2016 to assess the vulnerability of coffee plantations to climate change. This tool would later be included as a new module in Coffee Cloud. A training event for the National Conservation Areas System (SINAC) was held in Costa Rica with a total of 86 participants; a validation workshop for the OSPESCA tool [app] was held in El Salvador.

> **A successful partnership**. ANACAFE was identified as the first user of the coffee tool during the regional workshop that RCCP organized with PROMECAFE, the regional network of coffee institutions. The idea for the tool was presented at that workshop and ANACAFE expressed interest in being the pilot for its development. Also, a "Manual to reduce vulnerability to climate change in the coffee sector" was prepared and validated by RCCP-CATIE. Key ANACAFE staff decided to become trainers of trainers using the manual in replicated workshops in Cobán and San Marcos with the assistance of RCCP-CATIE.

CLIMA-PESCA, a tool offering daily weather information to fishermen throughout the region, was presented to OSPESCA board members in December, 2016. One interviewee (KII24 G2) remarked that "*this tool will help save lives, while boosting production*." Training has been provided to continue enhancing the applied value of meteorology in regional economic sectors. The tool focuses on three key questions: where to catch, how to catch, and am I safely fishing today?

RCCP has contributed to the strengthening of CRRH's capacity to acquire, process, and disseminate meteorological data and information (update of the Central America Climatic Data Base, videoconference equipment in each meteorological institute, and training on the Regional Climatological Modeling System 3). Furthermore, Centro Clima is now producing information demanded by the coffee and fishery sectors; the end users commented that they are pleased with the products.

Environmental Management under CAFTA-DR

During 2016, RCCP contributed to developing local capacity in wastewater treatment, carried out a regional training on tourism technology guidelines and a wastewater regional consultation, developed a manual on appropriate sustainable wastewater treatment in Guatemala, and carried out an assessment of domestic wastewater treatment plants in El Salvador and Honduras (USAID, RCCP Annual Report 2016).

Interviews (MM EPA, MM CATIE) revealed that it is unknown how the pilot activities in the CAFTA-DR component could contribute to enhancing the capacity of RCCP stakeholders in the Sustainable Landscapes or Adaptation components.

4.3.2 Conclusions

The Program conducted 44 training events to disseminate knowledge and skills in the three components, in collaboration with partner institutions in different countries; also, the Program continuously mentored individuals and institutions.

Training took place at different levels in the Sustainable Landscapes component. The Team was not able to verify the effect of TERRA on local capacity to develop economic and financial models for carbon markets on their own in Guatemala, Honduras, and Costa Rica. On the other hand, the Team found that FUNDAECO in Guatemala had several practical, hands-on training activities with more than six hundred participants in a protected area involved in a carbon market program.

RCCP-IUCN was successful in building skills related to the rights approach toward development, consultation, and FPIC with local staff in Honduras (MiAmbiente), Guatemala (MARN-GT), and El Salvador (MARN-ES), as intended. This success is possibly related to the long-term experience with ROAM not only in Central America, but also in other parts of the world where the IUCN has streamlined the tool transfer. El Salvador is the most notable example of ROAM buy-in in the region. In contrast, Honduras appreciated the value of the MAS concept[41] and endorsed the idea based on its technical and potential application merits, despite the fact that the tool is yet to be developed, implemented, or used in a classroom or workshop setting.

Time spent on the socialization of tools or methods is essential to develop local capacity. The Regional Guideline for the incorporation of environmental and social safeguards for REDD+ in the national strategy of each country is a tool with five generic steps that have been tailored and taught as requested by the countries. Thus, as stated by the people interviewed, the Program has demonstrated a high capacity to design safeguards for REDD+. RCCP-CARE-IUCN has also supported the governance platforms in Guatemala, Honduras, the Dominican Republic, and El Salvador to appreciate and discuss benefits for different sectors. Even though the Team could not assess [systematically] the effectiveness of the capacity building efforts, the perception of various stakeholders is that the Program has done a remarkable job of bringing people to the national platforms with a willingness to talk about the concerns of women and indigenous groups.

RCCP-CATIE's role in capacity building in Honduras was mixed. Government and USAID staff mentioned that CATIE did a very good job training in MRV and MAS, thus preparing the country to embrace the REDD+ agenda. CATIE had ten MS students working on different topics in both adaptation and mitigation.[42] The direct and indirect beneficiaries from Sico-Paulaya spoke highly of their acquisition of knowledge from CATIE. However, there is little to no evidence of training, or its effects, on entrepreneurial decision making applied to forestry, agriculture or livestock production, beekeeping, alternative energy, or other alternative livelihoods in deprived areas such as Sico-Paulaya. While people interviewed spoke about their empowerment [through their participation in the environmental platform] to express themselves and to engage in discussions in the local

[41] RCCP-CATIE, 2015. Synergies between adaptation and mitigation: priorities to conserve and restore the service ecosystems in Honduras. RCCP, San Salvador. Godoy Liere (2017) presents further developments of this concept. [Godoy Liere, C. 2017, El Manejo y Conservación de Bosques Tropicales y Biodiversidad, MS Thesis, CATIE, Turrialba.]

[42] Annex X presents a brief on the MS theses produced under the Program.

or national platforms, they did not mention whether they had acquired the ability to make evidence-based decisions to address production or marketing issues.[43]

Madera Verde Foundation was in charge of capacity building in Sico-Paulaya under CATIE's contract. From 2013 to 2016, RCCP spent $0.57 million at that site; CATIE learned and published research in that area, but the community in Sico-Paulaya still struggles to survive. Furthermore, CATIE's exit strategy was not well-timed or adequately communicated to the stakeholders, creating frustration amongst most [all] stakeholders. The stakeholders wonder what they did wrong to trigger CATIE's programmatic attrition or exit. The excellent perception of CATIE that prevails in Tegucigalpa is now combined with end-user disappointment in one priority territory.

Regarding the Adaptation component, the Program has aided the organization of seven Climate Fora, which have influenced individuals from other economic sectors [such as amenity, health or risk management] to be involved in meteorology. The Program has granted scholarships to seven MS students in meteorology, who will be reincorporated into meteorological institutions associated with CRRH. CRRH has contributed to regional knowledge on meteorology through 51 years of research tradition.[44]

One of the best investments for the Program has been its interaction with the coffee sector in Guatemala and Honduras during 2015-2016, when training manuals were developed and training events on coffee and climate change took place. The Coffee Cloud was introduced in the Coffee Forum in Guatemala. The Team concurs with some people interviewed who perceive that the Program support to CRRH and Coffee Cloud has resulted in outstanding products born and nourished through a regional effort. It is likely that the Coffee tool will be usable, following customization, by other countries in the region. The tool can include a managerial component to encourage coffee producers and traders to make evidence-based decisions that complement the biophysical information currently provided by the tool.

CLIMA PESCA is a tool that offers a sophisticated set of real-time variables useful for navigation and fishing for the traditional fishing sector, available through smart phones. The tool focuses on safe fish production, but there is an important question yet to be addressed: how much to catch? The answer to this question, related to sustainable livelihoods, requires further modification of the tool and training in critical thinking using basic principles of managerial economics.

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[43] In a similar way, our observations in the Lachuá region, and in San Gil, Izabal, in Guatemala do not reveal that end users have been empowered with the necessary skills to make evidence-based decisions in the management of their natural resources or businesses.

[44] Two recent newspaper reports demonstrate some of the regional contributions: Regional Committee on Hydraulic Resources (November, 2016). "Regional Perspective on Climate" for the period of December, 2016 – March, 2017 (D16 EFM17) in Mesoamerica, the Dominican Republic, and Cuba. Accessed at http://www.snet.gob.sv/UserFiles/meteorologia/perspectivasCA.pdf; and Regional Committee on Hydraulic Resources (March, 2017). Regional perspective on Climate" for the period of May – July, 2017 in Central America, Cuba, and the Dominican Republic. Accessed at: http://www.insivumeh.gob.gt/meteorologia/Perspectiva%20Clima%2052-Abril%202017.pdf

Ramos (2017) concluded that the staff from different institutions concur that RCCP enhanced the capacity for response, information management, leadership, planning, and data analysis; leadership has been the most prominent in the Sustainable Landscapes component while information management has been salient in the Adaptation component.

The CAFTA-DR component has contributed to the training and development of regional networks in wastewater treatment, water quality control, and development of tourism guidelines. This component has allowed CATIE to work on enabling key stakeholders to take ownership of activities and results to encourage CCAD's future sustainability. These new activities have concentrated on advancing existing EPA activities and strengthening the medium- and long-term impacts of USAID's investment in CCAD, resulting in a stronger regional organization to tackle critical environment and climate change challenges in Central America.

4.4 QUESTION 4: SUSTAINABILITY

What methodologies, approaches, and results achieved by RCCP have the potential to continue to exist after USAID's funding ends?

4.4.1 Findings

At the outset of the Program, most of the countries in Central America were not ready for implementing REDD+; they were working towards this end. Regarding the PCFP preparatory documentation for the Readiness Fund, the process in Costa Rica was ongoing in 2008, in Guatemala in 2012, in the Dominican Republic, El Salvador, and Nicaragua by 2013, and in Honduras by 2014. With respect to the National Reduction Program (Carbon Fund), there are also differences (see Annex X). The countries did not understand the depth of REDD+ nor how much work or cost was involved. However, the countries have made progress with RCCP support and guidance to advance the REDD+ agenda. Through the preparation of ER-PIN and ER-PD, they are now in a better position, with more knowledge and practice, to measure the impacts of mitigation and adaptation to climate change.

As mentioned by the stakeholders interviewed, there are some uncontrollable factors that affect the repeated and systematic use of knowledge and skills acquired through international cooperation: a) government instability (changes in presidents and geopolitics in the region) is a considerable barrier to the implementation of most projects; b) changes in government and key personnel are problematic; and c) frequent changes in government priorities contribute to making sustainability more elusive (KII14 G1, KII12 G2, MM16 G2, and FGD14 G3). The Guatemalan Restoration Strategy is linked to REDD+ government incentive programs such as PINPEP and PROBOSQUES[45], forest concessions, and others. In El Salvador, the REDD+ strategy has the Restoration Program as the backbone of the Mitigation-based Adaptation Strategy.

[45] Incentive Program for Small Forestland Owners (PINPEP) and Law for Promoting the Establishment, Recovery, Restoration, Management, Production, and Protection of Forests in Guatemala (PROBOSQUES).

Ministries of Environment in El Salvador, Guatemala, and Honduras use ROAM as a planning and decision-making tool to build their national restoration plans. RCCP-IUCN has been the promoter of this tool, but it is up to each government to determine the steps and pace of implementation. This is usually a responsibility left to the ministries of environment, the focal points for REDD+ and Bonn Challenge commitments.

Some informants stated that the ROAM tool needs to be up-scaled for more politicians to be aware and involved, and down-scaled for the communities to appreciate its benefits at the local level (municipality or plot level). At the same time, opinions were expressed that Guatemala and Honduras will need a lot more training to be able to implement this tool effectively. IUCN receives request for ROAM by the ministries and communities, and IUCN has expressed its commitment to continue working in the Lachuá region regardless of changes in funding.

As part of the commitments made to the UNFCCC to build their REDD+ Strategy, Guatemala and Honduras have already established National Safeguards Committees, and El Salvador and the Dominican Republic are in the building process (Annex X). Basically, the parties agreed to apply the safeguards for REDD+ and provide a summary of information on how safeguards will be addressed, and are also creating a Safeguards Information System (SIS). The guarantee for compliance by these countries will depend on political will. In some cases, this is because once a country has ratified a convention agreement, it becomes a national law and it needs to be implemented and enforced; but also, it should be determined by suitable environmental governance. In addition, low governability in some locations in Honduras (government often cannot enforce the rule of law), for example, has hindered the benefits of efforts in governance; to some extent, CATIE's exit from Sico-Paulaya has been influenced by this uncontrollable factor.

In El Salvador, there are five methodologies/tools received and applied with RCCP assistance: MRV, ROAM, Blue Carbon quantification, Safeguards, and Co-benefits monitoring. These tools are helping the country to prepare a National Restoration Plan. As RCCP is due to end in April, 2018, the country (MARN-ES) will continue these efforts with other funds.

While progress has been made in Guatemala, there is a need for harmonization and coordination. During 2016, two main laws or initiatives were released with RCCP facilitation and guidance: the Law for Promoting Establishment, Recovery, Restoration, Management, Production, and Protection of Forests in Guatemala (PROBOSQUE), a new incentive program of INAB and the National Restoration Strategy (MARN-GT). Interviewees in Guatemala mentioned that (FGD9 G2), "*there should be harmonization between these two legal and technical instruments.*" MARN-GT requests more coordination between agencies supporting countries with REDD+ funds and activities as a guarantee of synergy, efficiency, and sustainability. Good examples of effective coordination are activities carried out by GIZ, USAID-Climate, Nature, and Communities in Guatemala (CNGG), WB, and RCCP) (KII21 G2, FGD2 G1, FGD3 G1, MM7 G2, and MM17 G2).

The Team found that the majority of land stewards, water users, agriculturalists, livestock producers, beekeepers, and artisans in Lachuá or Sico-Paulaya do not have the skills to produce efficiently in order to compete with imports, nor do they have the skills to achieve cost-efficient export quality (FGD4 G2, FGD6 G3a, KII20 G2, FGD14 G3, MM9 G3, and MM10 G3). The exceptions were some cacao producers in Lachuá who export a very well differentiated white cacao, and MADERA VERDE, where they export mahogany for guitar necks. In general, there is a very high dependence on external advisers such as agro-foresters, entomologists, land use planners, social scientists, and small business development specialists, among others.

CRRH and its members (Meteorological Services of Central America) have endorsed Centro Clima and have accepted responsibility for administration of this platform. The transition period is currently underway and is included in the Business Plan prepared by RCCP and CRRH (RCCP-USAID and CRRH-SICA, 2017). RCCP will provide funds as an endowment or trust for operation for two years. The Business Plan includes three stages spanning over nine years. Centro Clima is the second PPP created by RCCP, after FUNDAECO, in Izabal, Guatemala in 2016. Even though Centro Clima is still technically being developed, and the hiring of its core management team is pending, it was born in the region, for the region, and it constitutes an asset for CCAD. According to the Business Plan, Centro Clima was designed to expand into new areas of knowledge and applications.

The continuity of Coffee Cloud is subject to maintaining the collaborative relationship between the CRRH (Centro Clima host administrator) and Coffee Cloud (ANACAFE), requiring continued communication, trust, and coordination of efforts between coffee growers and technicians.

While there is evidence of the use of climatological data at the regional level now that the apps for Coffee and Fishery are ready, their sustainability depends on suitable inter-institutional arrangements as well as follow-up on app performance, acceptance, and evolution. The Team is only aware of CRRH's Business Plan for Centro Clima.

Technical staff involved in the CAFTA-DR component had known each other for some time and the group was functional when it joined RCCP (MM CATIE, KII 22 G2). RCCP has helped, with equipment, expertise, and laboratories, to adopt quality standards, and has encouraged certification as an important element for financial sustainability (FG12 G2, FG13 HN).

4.4.2 Conclusions

The REDD+ initiative, as a political and technical instrument for reducing emissions, must be defined and applied uniformly to be long-lasting. Adapting REDD+ to the cultural and productive values in rural communities increases the probability of long lasting effects.

There is a need for more coordination between agencies supporting countries with REDD+ funds and activities to ensure synergy, efficiency, and sustainability.

RCCP has provided a diverse set of tools and methods for planning and decision making (ROAM, MRV, MAS, Consultation, Safeguards, SIS, and apps) useful for mitigating and adapting to climate change. There is a need for political will to continue using the tools, training, and socializing them among government officials, NGOs, and end users. Technical assistance can make this implementation and dissemination more effective. RCCP has contributed to the creation of Centro Clima (clearinghouse) through a public private partnership that is still in the consolidation process; its sustainability depends on stakeholders' willingness to pay for the service provided, which is a function of the usefulness of the apps to adapt to climate change in various economic sectors.

Local communities have had weak empowerment to address day-to-day and strategic planning using evidence of the status of their natural resources and the market environment to determine whether some interventions or innovations are economically viable. The communities still follow, almost blindly, the advice provided by "the experts," or agents that do not necessarily suggest options in the best interest of long-term benefits for land stewards.

It is likely that the CAFTA-DR component will continue to share expertise even in the absence of USAID's support.

5. RECOMMENDATIONS

The Program has less than a year before its official termination on April 15, 2018. In the remaining time there is an opportunity to consolidate and bring closure to activities that are already yielding fruitful results. In the long-run, USAID has the opportunity to gear its resources towards environmental areas that have a high impact because they are aligned with national and regional needs and priorities.

5.1 IMPACT

To enrich REDD+ strategies and restoration strategies, CATIE should finalize and publish the MAS tool. Then the Program should integrate it with ROAM at different scales. A number of countries are embracing the ROAM tool and MAS concept to prioritize their work in landscape restoration. These tools are not limited to rural areas, as they can be used to include the urban-rural interface not only to recuperate and enhance agricultural productivity and livelihoods, but also to improve the provision and support of environmental services such as water, biodiversity, and cultural or amenity values for the whole population.

The Program has very high standing with MiAmbiente in their preparation for REDD+; however, in the community of Sico-Paulaya there is frustration regarding RCCP's exit plan for September, 2017, which was not properly communicated or socialized by CATIE to the MAPSP. CATIE should provide a suitable explanation for the exit plan to Sico-Paulaya MAPSP members and to local MiAmbiente staff in order to ensure their willingness to collaborate on future research or development.

The Program should strive for consumer service satisfaction (surveys and impact assessments) in the Coffee Cloud in Guatemala and Costa Rica, and should include the other countries that have requested customization of this tool (El Salvador, Honduras, and Nicaragua). The Program should design a protocol for developing a tailor-made training program in order to maximize coverage. Also, the Program should be receptive to new ideas or supplemental services related to the sector and tool capabilities.

CATIE-DAI should test the Clima Pesca app with the users trained to assess its impact and consider possible uses in other countries based on the expected pay-offs of these efforts.

Improvements to the current apps can include the marketing and economic considerations that determine the level of activity in different economic sectors, as well as considerations of negative externalities or impacts from the use of agrochemicals in blue carbon production, for example. The tools could be used to assess not only productivity but also environmental, financial, and economic impacts and trade-offs (see infoagro.net, e-agriculture.org, and agrilinks.org).

While the development of new apps can be appealing, the transition from CATIE to CRRH, who will administer Centro Clima, should be strengthened above all else. This implies paying very close attention to the Centro Clima Business Plan in the first three years and having an open mind in order to adapt to unforeseen circumstances. CATIE should

consider hiring a business coach or mentor to aid CRRH in learning how to support SICA countries and their meteorological services without neglecting institutional and financial sustainability.[46]

USAID/CAM should commission a study to extract or discuss the long-lasting existence of this component in order to distill the lessons learned that could be useful in improving the design of regional activities.

5.2 ALIGNMENT

USAID/CAM, in collaboration with CCAD, and possibly with GIZ, should develop a mechanism to exchange information between the USAID bilateral Missions, and also between different projects under different donors involved in similar thematic areas. This would be compatible with the charter of the Regional Environmental Observatory and is essential to ensuring a fluid exchange of information that will allow users to benefit from other programs and to improve alignment.

USAID/CAM should consider commissioning a climate change-related gender and social inclusion analysis in the search for "development pathways for indigenous, poor and rural women." While the Program included women as participants in the Sustainable Landscapes and Adaptation components, changes in attitudes at the intra-household level (allowing women equitable access to income generation, food security, and investments) cannot and should not be measured only by numbers of women participating in diverse activities.

CCAD should take the initiative to monitor national and regional alignment in accordance with the Environmental Regional Strategy. CCAD can rely on Coffee Cloud and Clima Pesca users to lead regional efforts. CRRH and RCCP should continue as facilitators and contribute to enhance trust.

CRRH should establish formal partnerships with CCDA, the Coordination Center for the Prevention of Disasters in Central America, and others in its advisory committee, to develop new apps or services.

5.3 LOCAL CAPACITY DEVELOPMENT

In future programs, USAID should consider requiring that programs and projects have a training program with clear goals and objectives that go beyond the quantitative

[46] There are 15 lines of action and 30 activities from the CCAD Regional Strategy and CRRH collaboration, through which Centro Clima can provide climatic products and services for the SICA member countries (RCCP-USAID and CRRH-SICA (2017). A few of these lines are: applied research in disaster management in coordination with CEPREDENAC, applications in agriculture and food security, mechanisms of knowledge exchange at a regional scale, communication on climatic information at regional level and response capacity to extreme events, economic instruments for watershed management and pollution reduction of water resources, knowledge of climate change and climatic variability on marine and coastal resources, tourism and climate change, etc. The options for Centro Clima are vast; the Team's recommendations are mostly restricted to the two apps developed to date.

performance indicators. The training results by event should measure how knowledge and skills are acquired by individuals or institutions, rather than simply a head count. Twice a year, the Program could meet and assess how the training is contributing to the application of knowledge, empowerment, and self-reliability among the beneficiaries, including high-level government positions, NGOs, extension personnel, end users of natural resources, and app users.

The Program should value and allocate the time required for the socialization of tools as a way to ensure effective local capacity. Moving together in the processes necessary to build tools should be done with the participation of all parties. Even if it takes more time and financial resources, it is of utmost importance to ensure appropriation and quality in results, while making sure to include women, indigenous, and vulnerable groups.

A general recommendation for USAID/CAM for future climate change programs is to include the sustainable livelihoods development approach in all instances where production and trade are involved. Overall, beneficiaries should be empowered with knowledge about how things work in economic, social, and environmental areas. People living in the Northern Triangle (Guatemala/El Salvador/Honduras) require skill enhancements that can contribute to increasing their productive attachment to the land. The implementers should not be satisfied with performance numbers that often hide the complexity of processes involved in production and accessing markets.

CATIE as an IP should ensure that the commitment between the parties in a learning process is socialized through an ongoing review process, with transparency and mutual accountability in the learning process.

App development such as Coffee Cloud and Clima Pesca should not be restricted to biophysical variables (rainfall, temperature, pests and diseases, etc.). They could also include an entrepreneurial dimension that delivers individual or group benefits (profit, access to markets, market intelligence, bargaining power, etc.), and also takes into consideration positive externalities in the management of watersheds and landscapes (erosion control, water supply, biodiversity, cultural and amenity attributes, among others). Centro Clima should enrich its meteorological domain with sectoral approaches sensitized to social, economic, and environmental issues. This could be key for smart or proactive local capacity that is adaptable to moving targets and reducing vulnerability.

USAID/CAM ought to request a study to assess the possible synergies between activities in the CAFTA DR component vis-à-vis the Sustainable Landscapes and Adaptation components in one priority territory.

5.4 SUSTAINABILITY

Ministries of Environment in the Central American region should continue to update and prepare statements about their readiness in REDD+. This will be useful to the countries and for the region in the international fora to present viewpoints and determine needs for more technical assistance and training, as well as to clarify how they relate to national policies and the development agenda. The regional vision could help the countries

demonstrate the synergy of working together for common goals, such as resource conservation or diminishing internal and external migration.

CATIE should promote continuous training, technical assistance, and use of all the knowledge generated in the Program to develop the skills required in order to maintain the REDD+ programs. A notable example of this would be the transition from having a Sustainable Landscapes coordinator to not having one.

The Program should continue to promote and socialize all types of stakeholders in the Safeguard Committees (central and local government, civil society, private sector, academia, indigenous groups, and women) to mitigate the risk of social and environmental impacts posed by climate change.

RCCP should organize and support Centro Clima in supervising and managing a virtual library of thematic documents, video clips, presentations, reports, and scientific papers (circa 9 gigabytes). The library should be updated as contributing partners provide more information to the library. An angle that has yet to be developed is the inclusion of modules on the principles of managerial economics that are associated with the productivity of coffee or agroforestry systems, or in fisheries, and to encourage critical thinking among the users of smart phone applications.

The Program should identify synergies with other projects and programs in the region, and it should make systematic efforts for an "optimal" management of human and financial resources. Centro Clima should be a flagship that shares knowledge for the regional common good.

USAID/CAM should assign an exercise to facilitate/develop business plans for some activities carried out under the CAFTA-DR component (similar to Centro Clima in the Adaptation component).

6. PROGRAM MANAGEMENT & USE OF FINANCIAL RESOURCES

6.1 PROGRAM MANAGEMENT

The Evaluation SOW states that "In addition, the evaluation will serve to provide empirical evidence on management issues to support learning and continuous improvement in USAID's regional environmental work in this activity and future ones." Although frequent RCCP staff changes were made at the lower levels, the consistency of the program's upper level of management stayed essentially the same throughout the life of the project, with the exception of the Chief of Party position, which has numbered three to date (Annex XI).

Management style in the last two years was characterized as top-down management, in contrast to a more participatory management style during the previous years. Interviewees mentioned that participatory management promotes the creativity of staff members while top-down management tends to suppress creative actions of less confident staff members. Previous management was characterized as having strong leadership that engaged in long but productive discussions. In contrast, the more recent management style is more detail-oriented with a high level of supervision and direction. Changes at the lower levels have not slowed down program advances in spite of the fact that in some components the turnover has been high. Personnel changes at lower levels can sometimes be beneficial, as new staff bring with them new ideas that challenge older staff members to reevaluate their findings and development strategies.

RCCP operates as a Consortium with several implementing partners (CATIE being the prime; CARE, IUCN, TERRA, and DAI); this requires bringing together the implementers to meet common objectives. People interviewed mentioned that for the most part, implementing partners were not encouraged by RCCP management to work together on important Program endeavors.[47] In response to the question on sustainability, "what could have been done differently?" Informants replied that "It would have been much better if all the members of the Consortium had showed up together [in the development phase] to assess the options each of them offered to the countries" (FDG12 G2).

6.2 USE OF FINANCIAL RESOURCES

By the end of 2016, the Program had spent $12.5 million relative to the $15.9 million committed (Annex XII). Out of the expenditures, CATIE used 63 percent, IUCN 18 percent, DAI 9 percent, TERRA 6 percent, and CARE 3 percent. CATIE's administration cost was 29 percent (including the labor cost of technical experts, as well as technical coordination meetings and regional events), Sustainable Landscapes 48 percent, Adaptation 17 percent, and CAFTA-DR 6 percent. Expenditure in the priority territory in Sico-

[47] A log of coordination meetings held by the Program was provided by CATIE, shows 12 meetings in 15 quarters, from June, 2013 to December, 2016.

Paulaya, Honduras was $578,807; in Lachuá, Alta Verapaz, Guatemala it was $71,911; and the partnership with FUNDAECO in Cerro San Gil, Izabal, Guatemala was $71,610.

ANNEXES