AFB/PPRC.19/26
21 September 2016

Adaptation Fund Board
Project and Programme Review Committee
Nineteenth Meeting
Bonn, Germany, 4-5 October 2016

Agenda Item 8 d)

PROPOSAL FOR COSTA RICA, DOMINICAN REPUBLIC, EL SALVADOR, GUATEMALA, HONDURAS, NICARAGUA AND PANAMA

Background

1. The strategic priorities, policies and guidelines of the Adaptation Fund (the Fund), as well as its operational policies and guidelines include provisions for funding projects and programmes at the regional, i.e. transnational level. However, the Fund has thus far not funded such projects and programmes.

2. The Adaptation Fund Board (the Board), as well as its Project and Programme Review Committee (PPRC) and Ethics and Finance Committee (EFC) considered issues related to regional projects and programmes on a number of occasions between the Board's fourteenth and twenty-first meetings but the Board did not make decisions for the purpose of inviting proposals for such projects. Indeed, in its fourteenth meeting, the Board decided to:

> *(c) Request the secretariat to send a letter to any accredited regional implementing entities informing them that they could present a country project/programme but not a regional project/programme until a decision had been taken by the Board, and that they would be provided with further information pursuant to that decision*
>
> *(Decision B.14/25 (c))*

3. In its eighth meeting in March 2012, the PPRC came up with recommendations on certain definitions related to regional projects and programmes. However, as the subsequent seventeenth Board meeting took a different strategic approach to the overall question of regional projects and programmes, these PPRC recommendations were not included in a Board decision.

4. In its twenty-fourth meeting, the Board heard a presentation from the coordinator of the working group set up by decision B.17/20 and tasked with following up on the issue of regional projects and programmes. She circulated a recommendation prepared by the working group, for the consideration by the Board, and the Board decided:

> *(a) To initiate steps to launch a pilot programme on regional projects and programmes, not to exceed US$ 30 million;*
>
> *(b) That the pilot programme on regional projects and programmes will be outside of the consideration of the 50 per cent cap on multilateral implementing entities (MIEs) and the country cap;*
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> *(c) That regional implementing entities (RIEs) and MIEs that partner with national implementing entities (NIEs) or other national institutions would be eligible for this pilot programme, and*
>
> *(d) To request the secretariat to prepare for the consideration of the Board, before the twenty-fifth meeting of the Board or intersessionally, under the guidance of the working group set up under decision B.17/20, a proposal for such a pilot programme based on consultations with contributors, MIEs, RIEs, the Adaptation Committee, the Climate Technology Centre and Network (CTCN), the Least Developed Countries Expert Group (LEG), and other relevant bodies, as appropriate, and in that proposal make a recommendation on possible options*

on approaches, procedures and priority areas for the implementation of the pilot programme.

(Decision B.24/30)

5. The proposal requested under (d) of the decision above was prepared by the secretariat and submitted to the Board in its twenty-fifth meeting, and the Board decided to:

(a) Approve the pilot programme on regional projects and programmes, as contained in document AFB/B.25/6/Rev.2;

(b) Set a cap of US$ 30 million for the programme;

(c) Request the secretariat to issue a call for regional project and programme proposals for consideration by the Board in its twenty-sixth meeting; and

(d) Request the secretariat to continue discussions with the Climate Technology Center and Network (CTCN) towards operationalizing, during the implementation of the pilot programme on regional projects and programmes, the Synergy Option 2 on knowledge management proposed by CTCN and included in Annex III of the document AFB/B.25/6/Rev.2.

(Decision B.25/28)

6. Based on the Board Decision B.25/28, the first call for regional project and programme proposals was issued and an invitation letter to eligible Parties to submit project and programme proposals to the Fund was sent out on 5 May 2015.

7. According to the Board Decision B.12/10, a project or programme proposal needs to be received by the secretariat no less than nine weeks before a Board meeting, in order to be considered by the Board in that meeting.

8. The following project concept document titled “Productive Investment Initiative for Adaptation to Climate Change” was submitted by the Central American Bank for Economic Integration (CABEI), which is a Regional Implementing Entity of the Adaptation Fund.

9. This is the first submission of the regional project concept. It was received by the secretariat in time to be considered in the twenty-eighth Board meeting. The secretariat carried out a technical review of the project proposal, assigned it the diary number LAC/RIE/Inno/2016/1, and completed a review sheet.

10. In accordance with a request to the secretariat made by the Board in its 10th meeting, the secretariat shared this review sheet with CABEI, and offered it the opportunity of providing responses before the review sheet was sent to the PPRC.

11. The secretariat is submitting to the PPRC the summary and, pursuant to decision B.17/15, the final technical review of the project, both prepared by the secretariat, along with the final submission of the proposal in the following section. In accordance with decision B.25/15, the proposal is submitted with changes between the initial submission and the revised version highlighted.

Project Summary

Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, Panama and Dominican Republic - Productive Investment Initiative for Adaptation to Climate Change

Implementing Entity: CABEI
Project/Programme Execution Cost: US$ 525,000
Total Project/Programme Cost: US$ 5,525,000
Implementing Fee: US$ 469,625
Financing Requested: US$ 5,994,625

Project Background and Context:

The project goal is to enhance capacity of Micro, Small and Medium agricultural Enterprises (MSMEs) from Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, Panama and Dominican Republic to implement adaptation measures in order to increase their resilience to climate change, ensuring the provision of financial and non-financial services to support ecosystems and agricultural production, as well as providing technical assistance in the adaptation planning processes and incentives to define specific alternatives of resilience and investment management. The initiative will promote innovation and provide solutions of adaptation to climate change through the following components:

Component 1: Innovative financial mechanisms for Ecosystem based Adaptation measures (US$ 25,000,000, CABEI-funded)

Under this CABEI-funded component, loans will be provided to MSMEs through a network of Intermediate Financial Institutions (IFIs) accredited to CABEI. Such credits will be granted for the implementation of a wide range of natural resource management activities aiming at tackling threats arising out of climate change impacts. Loans will be granted based on business plans established by the MSMEs and evaluated by CABEI.

Component 2: Capacity Building for the Development of Production Models Resilient to Climate Change (US$ 2,000,000, AF-funded)

This component, that will be executed prior to component 1 described above, will provide support through non-refundable resources to the MSMEs that benefit from the credits described above. Such technical assistance activities plan to improve MSMEs' technical and entrepreneurial capacities to enhance their efficiency and competitiveness through the adoption of adaptation measures. This output will substantially contribute to raise the awareness level of the MSMEs on the needs to adapt to climate change and to improve their capacity to do business and access new markets. Similarly, capacity building and trainings activities will be provided to IFIs to support their capacity to create credit lines of adaptation to climate change.

Component 3: Incentive schemes to promote Ecosystem-Based Adaptation measures (Adapt-Awards) (US$ 3,000,000, AF-funded)

The measure proposed under this component consists in a refund of 20% of the loan principal granted by the regulated or non-regulated IFIs under component 1. This incentive will be distributed between MSMEs and IFIs in a percentage of 60% of the refund for the MSME and 40% for the IFI (12% and 8% of the credit amount, respectively). This incentive will be awarded only after the adaptation measures have been achieved and monitored. The refund of 12% of

total loan will allow the MSME to repay the sum granted to the balance of capital of the credit held with the IFI. By paying a sum to the balance on the capital total loan, the proportion that each MSME contributes to the capital balance is increased, and the interest deriving from the credit is reduced. Therefore, the MSME pays the credit acquired in less time. The incentive of 8% of total loan will allow the IFI to repay a sum to the capital total credit to CABEI.

ADAPTATION FUND BOARD SECRETARIAT TECHNICAL REVIEW OF PROJECT/PROGRAMME PROPOSAL

PROJECT/PROGRAMME CATEGORY: REGIONAL PROJECT CONCEPT

Countries/Region: **Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, Panama and Dominican Republic**
Project Title: **Productive Investment Initiative for Adaptation to Climate Change**
Thematic Focal Area: **Innovation in adaptation finance**
Implementing Entity: **Central American Bank for Economic Integration (CABEI)**
Executing Entities: **Central American Bank for Economic Integration (CABEI) – Project Coordination Unit**
AF Project ID: **LAC/RIE/Inno/2016/1**
IE Project ID:
Requested Financing from Adaptation Fund (US Dollars): **USD 5,994,625**
Reviewer and contact person: **Mr. Hugo Remaury**
Co-reviewer(s): **Ms. Fareeha Iqbal, Mr. Mikko Ollikainen**
IE Contact Person: **Mr. Randall Hooker**

Review Criteria	Questions	Comments initial review	Comments final review
Country Eligibility	1. Are all of the participating countries party to the Kyoto Protocol?	Yes.	
	2. Are all of the participating countries developing countries particularly vulnerable to the adverse effects of climate change?	Yes. The agricultural sector is the sector that has suffered from the greatest losses as a result of extreme weather events in recent decades in the region. It accounts for 9 per cent of the sub regional GDP but employs 30 per cent of the working population of the region.	
Project Eligibility	1. Has the designated government authority for the Adaptation Fund endorsed the project/programme?	No. CAR 1: Please provide endorsement letters from all participating countries' designated authorities.	CAR 1: Addressed.

	2. Does the regional project / programme support concrete adaptation actions to assist the participating countries in addressing the adverse effects of climate change and build in climate resilience, and do so providing added value through the regional approach, compared to implementing similar activities in each country individually?	The project goal is to "*enhance capacity of target countries to implement adaptation measures for micro, small and medium agricultural enterprises through the provision of financial and non-financial services to support ecosystems and agricultural production*". The AF project would co-finance a larger (USD 25 million) CABEI-funded component ("Component 1") aiming at providing loans to agricultural Micro, Small and Medium Size Enterprises (MSMEs) through Intermediate Financial Institutions (IFIs) for the implementation of "*best practices for production and conservation of natural resources and consolidation of production systems adapted to climate change*". It is proposed that the Adaptation Fund would distribute a cash refund of 20% of the loan contracted under component 1 to both MSMEs and IFIs for activities that will "*be oriented toward good environmental practices*" ("Component 2", USD 2 million). In addition, it is proposed that the Fund provides grant funding for technical assistance for the implementation of the measures described under Component 1, development of sectorial initiatives and credit-related technical assistance ("Component 3", USD 3 million). The proposal should clarify outstanding issues related to the appropriateness of the activities with respect to the	CR 1: Partly addressed. A list of eligible adaptation activities is provided in the proposal. A table highlighting what climate change-related risks each of these activities are addressing is also included. However, since component 2 still represents a significant amount of the funding requested (one third), with no expected concrete results on the ground apart from training and building capacity activities of IFIs and MSMEs, it appears important to clarify the scope of the activities planned under this component. Indeed, according to the proposal, this component would support activities that seem more related to the business aspects of the MSMEs (organizational, administrative and competitiveness, design of business plans and support to access loans of component 1) rather than supporting their capacity to implement adaptation activities. For instance, technical assistance would be granted to perform financial and markets studies, and to finalize MSMEs' business plans for them to access the loans provided by CABEI under component 1. Similarly, capacity-building activities would be organized to support the internal capacity of MSMEs in terms of "*organizational capacities, entrepreneurial, marketing,*

		expected climate change threats, their concreteness (delivering visible and tangible results on the ground), the selection of MSMEs and IFIs beneficiaries, and on the value added of the project through the regional approach, among others. CR 1: As an overall comment, the concreteness (expected visible and tangible results on the ground) of the AF-funded project and its appropriateness in responding to the identified climate threats is still to be demonstrated. CR 2: The proposal mentions that the "*Ecosystem-based Adaptation*" component 1 will implement loans supporting the implementation of "*best practices for production and conservation of natural resources and consolidation of production systems adapted to climate change"*. According to its description, component 1 rather seem to promote the implementation of "business-as-usual" environmental measures, and not necessarily activities addressing the adverse impacts of and risks posed by climate change through appropriate measures. Please clarify what types of activities will be supported through the loans planned under component 1. If they are indeed adaptation activities, please demonstrate that they respond to the	*accounting, IT*". In addition, activities will be organized with IFIs to support their capacity for "*credit analysis, incorporating environmental and social risks issues, financial evaluation of projects, business plans, management of protected areas, certification seals, biodiversity and diversification of the loan portfolio*". For these reasons, it appears important that the proposal explains more specifically how the provisions of each of the technical assistance and capacity building's activity listed will directly help MSMEs and IFIs to deliver ground-level adaptation results. Finally, since "*a manual including instructions on the conditions under which technical and/or business assistance to MSMEs will be provided*", it appears important to provide a draft of such manual at fully-developed proposal stage. CR 2: Partly addressed. The proposal confirms that loans granted under component 1 (CABEI-funded) would be provided "*based on the MSMEs' vulnerability to climate change and appropriateness of the measures proposed in responding to climate change threats*", in addition to their financial capacities. The proposal also says that "*an adaptation specialist will develop a guidance manual with adaptation parameters that will be*

		threats posed by climate change and not merely addressing gaps in good agricultural or conservation practice that are needed whether or not climate change impacts occur. CR 3: The proposal should further demonstrate that the activities that would be funded by the Adaptation Fund (i.e. components 2 and 3) will be addressing the adverse impacts of and risks posed by climate change, and would not be "business-as-usual" environmental measures. To this respect, the systems (and associated indicators/criteria) through which IFIs will be selected and through which MSMEs will be granted support from the IFIs for both components should be clearly explained. While doing so, the proposal should demonstrate that the vulnerabilities of the beneficiaries (IFIs, MSMEs and communities), the concreteness of the activities, and their appropriateness in responding to the climate change threats are criteria that will be taken into account during these processes. CR 4: The expected concrete (visible and tangible) results on the ground resulting from the implementation of the components 2 and 3 are currently unclear. The proposal should clarify what are the expected visible and tangible results expected from the	*systematized by CABEI and incorporated into the F1*" (i.e. a "Resource Justification Form" that MSMEs must fill to receive resources from IFIs). Given the importance of the alignment of activities supported through the loans with the Fund's mandate, the proposal should describe the adaptation-related criteria that will be used into the F1 form. In addition, the proposal should clarify what would be the proportion of the adaptation activities in the MSMEs' business plans designed to access loans under component 1. In other words, the concept proposal should clarify whether loans provided under component 1 would entirely go towards the implementation of the possible adaptation measures listed under Table 13. CR 3: Partly addressed. As outlined in CR1 and CR2, the proposal should provide additional information at concept stage regarding the selection of the MSMEs (including the "*selection criteria used by the programme*" mentioned p70, criteria to be used into the F1 form-see CR2- and draft manual-see CR1). Moreover, the proposal does not clarify which institutions, among the CABEI-accredited IFIs, will be able to

		implementation of component 2 and 3, and clearly demonstrate that they are aligned with the Fund's mandate to support the most vulnerable communities in implementing concrete (visible and tangible) adaptation activities on the ground in response to the identified climate threats. CR 5: The proposal should further explain how the sectors listed in the proposal have been prioritized, and demonstrate that this prioritization is aligned with the Fund's mandate. CR 6: Given the mandate of the Fund of supporting concrete activities with visible and tangible results on the ground, and the significant portion (60%) of the AF budget dedicated to the capacity building activities of component 3, please demonstrate further the concrete visible and tangible results expected on the ground from the implementation of its activities. If necessary, please consider a different balance between "hard" (i.e. concrete) and "soft" (e.g. capacity-building, technical assistance) measures. CR 7: The proposal should further demonstrate how this project builds added-value through the regional approach, compared to implementing similar activities in each country individually.	access the loans planned under component 1 and will benefit from the AF-funded activities (components 2 and 3), although some sections of the proposal suggest that all 98 IFIs currently accredited to CABEI could benefit from these components. Such institutions include 9 public banks, 36 private banks, 14 finances companies, 27 non-banking financial institutions and 12 cooperatives. In addition, the proposal states that MSMEs could potentially include "*not legalized enterprises*". The proposal should clarify what this exactly means. Finally, given the strong role that they will play in the implementation of the programme, it appears useful to provide at concept stage a brief description of the standards and criteria used by CABEI to accredit its IFIs. CR 4: Addressed, although some questions remain with respect to the activities conducted under components 2 and 3 (see CRs above). CR 5: Addressed. A vulnerability assessment of agricultural sectors will be provided at the fully-developed proposal stage.

		CR 8: The selection of beneficiaries (MSMEs and IFIs) is currently unclear and should be clarified. According to the proposal, the selection of beneficiaries will be made "*through mechanisms that will take into account geography, and the implementation within communities and organizations*". In parallel, the range of MSMEs as described by CABEI looks quite wide (*"those legalize or not legalized enterprises that count from 1 to 100 employees and have financial needs up to USD 1 million"*). Moreover, the proposal says that "*the MSMEs that will be considered will be those interested in developing friendly investments incorporating production practices with an adaptation approach*". Finally, lessons learned from the CAMBio project include that "*FIs do not target micro and small farmers and this sector continues to face severe barriers to financial inclusion*"; "*a new initiative must clearly define a typology of farmers and productive systems as target groups. A clear target group will allow lending to be effectively integrated with technical assistance and anchor market chains*"; "*A new initiative must be firmly anchored among small-scale farmers*". As such, the characteristics of the expected MSMEs and IFIs beneficiaries of the bio-bonus (component 2) and technical assistance (component 3) remain unclear. Please	CR 6: Partly addressed. Soft measures now represent around 33% of the total budget, while hard measures represent around 50 %. Some questions remain with respect to the capacity building/technical assistance activities, as highlighted in previous CRs. CR 7: Partly addressed. This section could look at other aspects, such as gains in terms of transaction costs, to reinforce the added-value of the regional approach. CR 8: Partly addressed. As commented above, the proposal should clarify which IFIs will be eligible to benefit from the project, and on which basis. In addition, even though the proposal states that "*organizations and cooperatives of small-scale farmers will be prioritized over medium-sized enterprises that concentrate the power of ownership in a single individual or a small group of partners*", there is no evidence that this criteria is taken into account into the selection of MSMEs. To this respect, and as requested above, please provide the selection criteria established by the programme for both MSMEs (mentioned in p.70).

		describe more precisely the characteristics of expected MSMEs (proportion of micro and small producers) and IFIs beneficiaries, explain the mechanisms through which they will be selected (and on which basis/criteria), and clarify the extent to which their level of vulnerability will be taken into account during the selection process. CR 9: Since the MSMEs and the IFIs will be the beneficiaries of the project, the background/context section should clearly describe their respective vulnerability in light of climate change, and the expected impacts of climate change on their business systems. It seems especially important for IFIs, since they apparently include a variety of different institutions such as "*public/state banking entities, private banks, micro-financial institutions, non-bank financial institutions, and savings and credit cooperatives*" that are probably differently impacted by climate change. CR 10: Given the complexity of the sector that the project is seeking to support, the proposal should explain how the project will take into account the non-climatic barriers of the agricultural sectors in the different countries targeted by the project.	CR 9: Partly addressed. The proposal clearly states that it would only consider MSMEs' vulnerabilities, and not IFIs'. The project's support to IFIs will aim at "*developing a culture of adaptation financing"* and to *"reduce their perception of small-scale farmers as a risky target and builds their capacities for understanding climate change-related investments and undertaking a process of designing adaptation lines themselves.*" CR 10: Mostly addressed. This section could be strengthened by adding potential non-climatic barriers that could be encountered in the target agricultural sectors, if applicable. Such potential non-climatic barriers may relate to market access, inputs availability, pests, agricultural policies, land rights, among others.

		CR 11: Since one of the lessons learned from the CAMBio project is that "*a profound assessment is required to understand sector niches and opportunities*", please explain whether such analysis has been performed, or if the project plans to conduct such study. CR 12: Please describe further the network of Intermediate Financial Institutions (including but not limited to membership types and criteria, meaning of "non-regulated" ones etc.) and the exact role they would play in delivering the components 1, 2 and 3. CR 13: As an overall comment, the proposal lacks of relevant references to existing literature/studies/analysis. The proposal should include additional references, to the extent possible, particularly to support the background/context, cost-effectiveness and expected benefits sections. CR 14: Please make sure that the context and background section covers all countries targeted by the project. For instance, Dominican Republic is currently missing from the "cultural characteristics" section. CR 15: Please discuss whether there is scope for the project to have broader impact, e.g., to trigger the establishment of an incentive or ranking system that	CR 11: Addressed. CR 12: Mostly addressed. The proposal should clarify what "non-regulated" IFIs means. As requested in previous CR, it should also provide an overview of CABEI's accreditation process of such IFIs, and the standards that are assessed during accreditation. CR 13: Mostly addressed, although the expected benefits section (Part II section C) would be strengthened by referring more to the existing literature. CR 14: Addressed. CR 15: Mostly addressed. However, the proposal should clarify whether the resources generated through the revolving credits will be re-invested in

		IFIs can use for borrowers who can demonstrate that they are taking measures to reduce risk to climate change and increased variability. CR 16: Please elaborate further or how the 20 percent loan principal cash refund will be shared by the MSMEs and the IFI. Will it only cover the entire interest payment for the MSME, or also a sizeable portion of the principal? For the IFI, what is the precise nature of the financial benefit that these proceeds would provide? Will it cover the interest payment, or more?	adaptation activities. CR 16: Addressed. The Adapt-awards consist in the refund of 20% of the loan principal granted by the IFIs (up to USD 10,000). This incentive will be distributed between MSME and IFIs who would benefit from 12% and 8% of the credit amount, respectively.
	3. Does the project / programme provide economic, social and environmental benefits, particularly to vulnerable communities, including gender considerations, while avoiding or mitigating negative impacts, in compliance with the Environmental and Social Policy of the Fund?	CR 17: In addition to clarifying the expected beneficiaries of the project and the criteria used to select them (see CR above), the proposal should include clear references to the equitable distribution of benefits to vulnerable communities, IFIs and MSMEs. CR 18: Given the presence of indigenous populations in all target countries, please outline the particular benefits provided by the project to those groups. CR 19: Please provide an overview of gender considerations vis-à-vis MSMEs in the participating countries (e.g. Are there several female-headed MSMEs? Do they face barriers or constraints that the project can help try to overcome?) and describe the benefits the project will	CR 17: Partly addressed. As requested in previous CRs, the proposal should describe further the criteria for selecting the IFIs participating into the programme, and those for selecting MSMEs. The proposal should explain how the programme will ensure an equitable distribution of the loans within target countries themselves, and across the different countries. CR 18: Not addressed. The proposal does not outline the particular benefits that will be provided by the programme to indigenous communities that have been identified. CR 19: Mostly addressed. Although it states that there is no statistics related to gender considerations in Central

		provide in terms of gender considerations.	American's MSMEs, the proposal would probably benefit from having a look at the existing extensive literature, notably from United Nations agencies about gender inequality in the region. Given the draft gender strategy provided and the relatively low participation of women into the similar CABEI-funded "CAMBIO" programme (33% of beneficiaries for 13% of the amount of loans granted), it appears necessary for the proposal to include additional references to potential socio-economic benefits of the programme in terms of gender equality.
	4. Is the project / programme cost-effective and does the regional approach support cost-effectiveness?	Likely. As requested above, this preliminary cost-effectiveness analysis should, to the extent possible, be supported by existing literature/studies/analyses performed in the region and/or in the target countries. CR 20: The proposal should clarify how will grant size be determined for the MSMEs, and how will it be determined whether the measures the MSMEs will implement (from Component 1) are being done in a cost-effective manner relative to the grant being received. CR 21: Please explain how it will be ensured that the AF grant size per MSMEs will depend on the adaptation actions that are undertaken, and not on the volume of the baseline loan.	CR 20: Not addressed. The proposal does not describe how the sizes of the loans provided under component 1 will be fixed. However, it states that the Adapt-awards that will be provided by IFIs will be "up to USD 10,000", which suggest that for loans that are beyond USD 50,000, the MSMEs will be granted a maximum amount of USD 10,000. The proposal should clarify that aspect. Since the current list of criteria for awarding loans (and adapt-awards) to MSMEs does not include cost-effectiveness considerations, it is not possible to confirm that the activities implemented by the MSMEs will be cost-effective.

			CR 21: Addressed.
	5. Is the project / programme consistent with national or sub-national sustainable development strategies, national or sub-national development plans, poverty reduction strategies, national communications and adaptation programs of action and other relevant instruments? If applicable, it is also possible to refer to regional plans and strategies where they exist.	Likely. The proposal provides a preliminary list of national and regional plans that the project aligns with. However, some key national plans and strategies seem to be missing from the analysis, including the ones related to the national agricultural sectors, and NAPA and NDC processes, for instance. CR 22: Please identify any national relevant plans and strategies (e.g. national development plans, poverty reduction strategies) that are relevant to the proposed project, including the ones related to the agricultural sectors of the target countries, and the NAPA and NDC processes. CR 23: Please clarify the following sentence: "*It is also important to note that on June 9th, 2016 changes to CABEI's constitutive agreement came into effect with changes to the Bank's nature and objective, the characterization of its members and conditions for contracting guarantees or loans, as well as provisions for the adhesion of new members in order to offer them options that are adapted to their particular conditions*" (page 37).	CR 22: Addressed. CR 23: Addressed.
	6. Does the project / programme meet the relevant national technical standards, where	To be demonstrated. CR 24: Should a more complete description of activities be provided as	CR 24: Not addressed. The concept proposal should identify any relevant technical standards that would apply to the project, and demonstrate

	applicable, in compliance with the Environmental and Social Policy of the Fund?	per the CR made under section 2 above, please update this section accordingly with any additional impacts or risks that may have been identified. CR 25: For each ESP principle where further assessment and management is required for compliance with the ESP, please explain briefly how those risks will be further assessed and managed. CR 26: Despite the wide range of activities that could be supported through the project (i.e. integrated waste management, diversification of agricultural production, pest integrated management plan, reforestation etc.) and that the checklist of environmental and social principles shows that further assessments are required to comply with some principles of the ESP, the proposal classifies inconsistently the project as category C. According to the project description, the project would likely fall under a category B project (please refer to para 8 of the Fund's ESP for additional information: http://www.adaptation-fund.org/wp-content/uploads/2015/09/Environmental-Social-Policy-approved-Nov2013.pdf). Please amend the proposal accordingly. CR 27: the proposal states that Environmental Impact Assessments and water regulations will not be applicable to the project. This is inconsistent with	compliance of the proposal with such standards. These standards include Environmental Impacts Assessments, building codes, water quality regulations, and sector-specific regulations (e.g. agricultural standards). In addition, the proposal should demonstrate whether or not EIAs will be needed to comply with such standards. CR 25: Addressed. CR 26: Addressed. CR 27: Not addressed – see comment made under CR 24 above.

		the type of activities that the project could support. The proposal should identify any national standards, including the ones related to EIAs and water/agricultural specific regulations that the project will comply with. As some Environmental Impact Assessments are likely to be prepared during the project implementation, due to the nature of activities, an Environmental and Social Management Plan (ESMP) commensurate with the risks identified and in accordance with the project ESP categorization will be requested at the full proposal stage.	
	7. Is there duplication of project / programme with other funding sources?	Not likely. CR 28: Please demonstrate that the project does not overlap with the initiatives listed in that section. Similarly, please explain the complementarity with the initiatives listed in that section, when applicable. CR 29: Currently, only CABEI-funded initiatives are included in the analysis. However, other funding stakeholders are likely to support already relevant initiatives in the region or in the target countries. As a result, please identify any relevant regional or national-level projects/programmes and demonstrate the lack of overlap or complementarity with the proposed project.	CR 28: Addressed. CR 29: Addressed.

	8. Does the project / programme have a learning and knowledge management component to capture and feedback lessons?	Yes, but some elements are unclear. CR 30: Please be more specific regarding the activities and products that the project will deliver to capture the experience and lessons learned on the ground across the different countries, and from both the IFI's and the MSMEs' experience. Please briefly explain ways for MSMEs to share the vulnerabilities they face, how they decided which course of (adaptive) action was needed to overcome these, the role and relevance of technical assistance received, and their experience and success with implementing the adaptation measures. Please also consider critically evaluating experience with this innovative approach to engaging MSMEs in adaptation activities. CR 31: Please explain how the knowledge management outcomes and lessons learned will be disseminated to relevant stakeholders, and how they will be sustained overtime (i.e., after the project completion).	CR 30: Partly addressed. The proposal should elaborate more on the specific activities and outputs the project will use to capture and disseminate lessons learned across both the IFIs and MSMEs. CR 31: Mostly addressed. The proposal should elaborate more on how the knowledge products will be sustained after the project completion, both at the level of the IFIs and MSMEs.
	9. Has a consultative process taken place, and has it involved all key stakeholders, and vulnerable groups, including gender considerations?	There is currently no evidence that an initial consultation process took place. CR 32: Please note that, according to "*Instructions for preparing a request for project or programme funding from the Adaptation Fund*" (see annex 5 of the Operational Policies and Guidelines of	CR 32: Partly addressed. 8 MSMEs, 1 IFI and 2 technical assistance providers have been consulted (between the initial and final review of the concept proposal), mainly on their

		the Adaptation Fund): "*At the concept stage, an initial consultative process has to take place, with key stakeholders of the project/programme. Depending on the level of involvement of local communities or governments, private sector, CSOs or universities/research centres in the execution of the project/programme, those stakeholders may or may not be consulted at the concept stage. In project/programme target areas where minority groups and indigenous peoples have been identified, they should be consulted at the concept stage and their interests or concerns taken into account when designing the proposal*". As there is no currently no evidence in the proposal that such process took place please confirm whether or not such initial consultation process has taken place and provide. If it did, please provide the outcomes of such consultations and explain on how they have informed the design of the project concept.	current productions methods and their experience with the previous CABEI-funded "CAMBIO" project. However, given the dates at which these consultations took place, there is no evidence that the outcomes have informed the design of the proposal. It appears important that the concept proposal include outcomes of further consultations with key stakeholders, and to demonstrate that the outcomes of such consultations inform the design of the proposal. In addition, there is no evidence that minority groups and indigenous people (acknowledged as being largely present in many target countries) have been consulted at this stage and that their interest or concerns are taken into account in the proposal.
	10. Is the requested financing justified on the basis of full cost of adaptation reasoning?	Still to be demonstrated. Indeed, the achievements of components 2 and 3 are entirely dependent on the delivery of the CABEI-funded component 1. CR 33: The activities planned under components 2 (incentive schemes over the loans provided under component 1) and 3 (including technical assistance for the implementation of loans provided under component 1) are directly linked	CR 33: Not addressed. At stated in the proposal, the three components are fully linked to each other's. In fact, no credits (i.e. component 1, CABEI-funded) would be granted without the existence of the Adapt-Awards (component 2, AF-funded) and capacity-building activities (component 3, AF-funded). In terms of timeline, the capacity building activities will be first delivered

		to the implementation of component 1. The "*Instructions for preparing a request for project or programme funding from the Adaptation Fund*" (see annex 5 of the Operational Policies and Guidelines of the Adaptation Fund) stipulates that "*the Adaptation Fund project should be able to deliver its outcomes and outputs regardless of the success of the other project(s)*". Since the achievements of components 2 and 3 depend entirely on the delivery of component 1, please explain how the project will ensure that the activities of components 2 and 3 (i.e. activities supported by the Adaptation Fund) will be delivered regardless of the progress/achievement of outcome 1.	(component 3, AF-funded) before the loans are granted (CABEI-funded component 1). Once such loans granted and adaptation activities completed, the adapt-awards will be awarded (AF-funded component 2). It seems worth underlining that the proposal presents some issues related to the mandate of the Fund, and to the necessary arrangements for this type of projects. Indeed, the current OPG stipulates that the full cost of adaptation reasoning criteria implies that "*the Adaptation Fund project should be able to deliver its outcomes and outputs regardless of the success of the other project(s)*", which seems impossible in that case, as explained in the para above. The PPRC may want to discuss whether it would be useful to explore ways to address this issue.
	11. Is the project / program aligned with AF's results framework?	Likely. However, the alignment table has not been filled by the proponent. CAR 2: Please provide a results framework alignment table (available at: https://www.adaptation-fund.org/apply-funding/project-funding/project-proposal-materials/)	CAR 2: Addressed.
	12. Has the sustainability of the project/programme outcomes been taken into account when designing the project?	To be demonstrated. CR 34: Please elaborate on how the long-term financial and economic sustainability of the incentives schemes	CR 34: Addressed. CR 35: Partly addressed. The proposal states that such aspects will "*not apply to this project since it is not*

		and activities planned under component 3 will be ensured. CR 35: Similarly, please describe further how the institution, policy and governance sustainability of the components 2 and 3 will be ensured over time (i.e. after the project completion) from an institutional, policies and governance standpoints. CR 36: Please clarify what is the expected level of involvements of governments' agencies in the project's execution?	*governmental project. Non-refundable funds can only come from external sources. Efforts will be made in order to obtain new resources for non-refundable activities*". However, and even though this would indeed not constitutes a governmental project, issues of institutional continuity, supportive policies and management are relevant aspects of sustainability that the proposal should look at. In addition, since the proposal says that funds for activities can only come from external resources, the proposal should elaborate on how AF-funded activities, especially the capacity-building and technical assistance ones, would be continued after project completion. CR 36: Partly addressed. The proponent states that "*Governments' agencies will not be included in the project as partners; however, CABEI is eager to collaborate by exchanging information, results, best practices and lessons learned with governmental agencies*." The proposal should explain further how other organizations, especially governments' agencies, will benefit from the experience generated by the project.
	13. Does the project / programme provide an overview of environmental	Yes. All potential environmental and social	

	and social impacts / risks identified?	impacts and risks will need to be thoroughly and precisely assessed at full proposal stage. Moreover, since the activities funded through the incentives schemes under component 2 are likely to not be identified at the full proposal stage (unidentified sub-projects or USP), the proposal should include environmental and social management plan (ESMP) that includes a framework for the risk identification and any subsequent environmental and social safeguarding activities for such sub-projects as and when these are identified to a stage where risk identification is possible. Such ESMP: i) must show linkage with the Environmental and Social Management System (ESMS) of the Implementing Entity; ii) includes and is built on any ESMP elements that have been identified for the activities for which risk identification was possible before submission of the project proposal to AF: iii) includes a comprehensive process for environmental and social safeguarding for the USP. The process is identical to that of determining risks and impacts for project activities that are fully known before the application, including a clear description of the risk identification process, with allocated roles and responsibilities, all under close IE supervision. Such system should take into account the role of the in this project and the one of the	

		MSMEs. CR 37: Please describe the system through which the project will ensure that the IFIs and MSMEs comply with the AF ESP.	 CR 37: Mostly addressed. The ESMP requested at full proposal (see comment on the left-hand side column) will need to include compliance of both IFIs and MSMEs with respect to the AF ESP.
	14. Does the project promote new and innovative solutions to climate change adaptation, such as new approaches, technologies and mechanisms?	Yes. Should the activities financed through component 2 be indeed adaptation activities (see previous CRs), the project would reduce obstacles to credit access to MSMEs for the implementation of adaptation activities, which consist the main innovation of the project. Currently, loans based on adoption of Ecosystem Based Adaptation measures do not exist in the region.	
Resource Availability	1. Is the requested project / programme funding within the funding windows of the pilot programme for regional projects/programmes?	Yes.	
	2. Are the administrative costs (Implementing Entity Management Fee and Project/ Programme Execution Costs) at or below 20 per cent of the total project/programme budget?	The administrative costs have not been provided by the proponent. CAR 3: Please provide the administrative costs of the project.	CAR 3: Mostly addressed. Given the fact that CABEI will be both implementing and executing the project, the full proposal would be strengthened by demonstrating the cost-effectiveness of the amount of funding requested for administrative costs. In addition, the total amount of financing requested is announced at

			USD 5 million on the first page, whereas the budget detailed on page 59 suggests that it will actually be USD 5,994,625. Please note that if the total amount of financing requested excess USD 5 million, the proposal would fall under the pilot regional programme's windows of up to USD 14 million.
Eligibility of IE	3. Is the project/programme submitted through an eligible Multilateral or Regional Implementing Entity that has been accredited by the Board?	Yes.	
Implementation Arrangements	1. Is there adequate arrangement for project / programme management at the regional and national level, including coordination arrangements within countries and among them? Has the potential to partner with national institutions, and when possible, national implementing entities (NIEs), been considered, and included in the management arrangements?	Not applicable / Not required at concept stage CR 38: Please explain if participation of the National Implementing Entities accredited for the proposed participating countries (namely Fundecooperacion in Costa-Rica, Fundacion Natura in Panama and the Instituto Dominicano de Desarrollo Integral (IDDI) in Dominican Republic) has been considered, and if they have been consulted for their interest in partnering in the project. CR 39: Please clarify who will be the executing entities of the project, as the proposal gives contradictory information, first by designating CABEI (and its "Project Coordination Unit") and then explaining that IFIs will be in	The endorsement letters confirm that the PMU (located in CABEI) will be the executing entity. CR 38: Partly addressed. The proposal does not include AF NIEs in the implementation arrangements. However, the proposal states that "*CABEI is eager to collaborate by exchanging information, results, best practices and lessons learned with the NIEs; CABEI will as well seek to identify synergies with the adaptation projects being implemented by these NIEs*". The concept proposal should briefly describe how the programme will engage with NIEs and will benefit from experiences as they emerge in the course of the programme's implementation. The fully-developed proposal should elaborate on such

		charge of the execution of components 2 and 3.	aspects. CR 39: Addressed. A Project Administration Unit (PAU) located within CABEI, hired for the sole purpose of executing this project, will be in charge of the day-to-day management of the project. The fact that CABEI will be both in charge of the programme oversight (through its role of implementing entity) and day-to-day execution (through its role of executing entity) and will be monitoring and evaluation its own role, may create a risk of conflict of interest.
	2. Are there measures for financial and project/programme risk management?	Not applicable / Not required at concept stage	
	3. Are there measures in place for the management of for environmental and social risks, in line with the Environmental and Social Policy of the Fund? Proponents are encouraged to refer to the Guidance document for Implementing Entities on compliance with the Adaptation Fund Environmental and Social Policy, for details.	Not applicable / Not required at concept stage	
	4. Is a budget on the Implementing Entity	Not applicable / Not required at concept stage	

	Management Fee use included?		
	5. Is an explanation and a breakdown of the execution costs included?	Not applicable / Not required at concept stage	
	6. Is a detailed budget including budget notes included?	Not applicable / Not required at concept stage	
	7. Are arrangements for monitoring and evaluation clearly defined, including budgeted M&E plans and sex-disaggregated data, targets and indicators?	Not applicable / Not required at concept stage	
	8. Does the M&E Framework include a break-down of how implementing entity IE fees will be utilized in the supervision of the M&E function?	Not applicable / Not required at concept stage	
	9. Does the project/programme's results framework align with the AF's results framework? Does it include at least one core outcome indicator from the Fund's results framework?	Not applicable / Not required at concept stage	
	10. Is a disbursement schedule with time-bound milestones included?	Not applicable / Not required at concept stage	

Technical Summary	The project goal is to enhance capacity to implement adaptation measures for micro, small and medium agricultural enterprises from Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, Panama and Dominican Republic, in order to increase their resilience to climate change, ensuring the provision of financial and non-financial services to support ecosystems and agricultural production, as well as providing technical assistance in

	the adaptation planning processes and incentives to define specific alternatives of resilience and investment management. The Adaptation Fund project would support the implementation of financial incentive schemes promoting ecosystem based adaptation measures (Bio-bonus). The current concept should demonstrate clearly that the activities that will benefits from the incentive schemes are indeed ecosystem abase adaptation measures, and not business as usual environmental measures. the underlying adaptation reasoning of the proposal, especially for the components 2, 3 and 4 and should highlight the cohesion and coherence between the different components. In addition, several sections of the proposal needs to be strengthen with reference to relevant literature, studies and/or analysis supporting the description made in the document. The proposal should also highlight the expected visible and tangible results of the activities of the project supported by the Fund and should justify the concreteness of component 3 and its current budget allocation. The proposal should demonstrate that an initial consultation process involving all key stakeholders (e.g., communities, states institutions' representatives, protected areas and fishery sectors) took place. It should also demonstrate that the benefits from the incentive schemes will be sustained overtime. The document needs to be revised accordingly. A number of issues were raised through the initial review. The following Corrective Action Request (CAR) are requested. CAR 1: Please provide endorsement letters from all participating countries' designated authorities. CAR 2: Please provide a results framework alignment table (available at: https://www.adaptation-fund.org/apply-funding/project-funding/project-proposal-materials/) CAR 3: Please provide the administrative costs of the project. The following Clarifications Requests (CR) are also made: CR 1: As an overall comment, the concreteness (expected visible and tangible results on the ground) of the AF-funded project and its appropriateness in responding to the identified climate threats is still to be demonstrated. CR 2: The proposal mentions that the "*Ecosystem-based Adaptation*" component 1 will implement loans supporting the implementation of "*best practices for production and conservation of natural resources and consolidation of production systems adapted to climate change"*. According to its description, component 1 rather seem to promote the implementation of "business-as-usual" environmental measures, and not necessarily activities addressing the adverse impacts of and risks posed by climate change through appropriate measures.

	Please clarify what types of activities will be supported through the loans planned under component 1. If they are indeed adaptation activities, please demonstrate that they respond to the threats posed by climate change and not merely addressing gaps in good agricultural or conservation practice that are needed whether or not climate change impacts occur. CR 3: The proposal should further demonstrate that the activities that would be funded by the Adaptation Fund (i.e. components 2 and 3) will be addressing the adverse impacts of and risks posed by climate change, and would not be "business-as-usual" environmental measures. To this respect, the systems (and associated indicators/criteria) through which IFIs will be selected and through which MSMEs will be granted support from the IFIs for both components should be clearly explained. While doing so, the proposal should demonstrate that the vulnerabilities of the beneficiaries (IFIs, MSMEs and communities), the concreteness of the activities, and their appropriateness in responding to the climate change threats are criteria that will be taken into account during these processes. CR 4: The expected concrete (visible and tangible) results on the ground resulting from the implementation of the components 2 and 3 are currently unclear. The proposal should clarify what are the expected visible and tangible results expected from the implementation of component 2 and 3, and clearly demonstrate that they are aligned with the Fund's mandate to support the most vulnerable communities in implementing concrete (visible and tangible) adaptation activities on the ground in response to the identified climate threats. CR 5: The proposal should further explain how the sectors listed in the proposal have been prioritized, and demonstrate that this prioritization is aligned with the Fund's mandate. CR 6: Given the mandate of the Fund of supporting concrete activities with visible and tangible results on the ground, and the significant portion (60%) of the AF budget dedicated to the capacity building activities of component 3, please demonstrate further the concrete visible and tangible results expected on the ground from the implementation of its activities. If necessary, please consider a different balance between "hard" (i.e. concrete) and "soft" (e.g. capacity-building, technical assistance) measures. CR 7: The proposal should further demonstrate how this project builds added-value through the regional approach, compared to implementing similar activities in each country individually. CR 8: The selection of beneficiaries (MSMEs and IFIs) is currently unclear and should be clarified. According to the proposal, the selection of beneficiaries will be made "*through mechanisms that will take into account geography, and the implementation within communities and organizations*". In parallel, the range of MSMEs as described by CABEI looks quite wide (*"those legalize or not legalized enterprises that count from 1 to 100*

	employees and have financial needs up to USD 1 million"). Moreover, the proposal says that "*the MSMEs that will be considered will be those interested in developing friendly investments incorporating production practices with an adaptation approach*". Finally, lessons learned from the CAMBio project include that "*FIs do not target micro and small farmers and this sector continues to face severe barriers to financial inclusion*"; "*a new initiative must clearly define a typology of farmers and productive systems as target groups. A clear target group will allow lending to be effectively integrated with technical assistance and anchor market chains*"; "*A new initiative must be firmly anchored among small-scale farmers*". As such, the characteristics of the expected MSMEs and IFIs beneficiaries of the bio-bonus (component 2) and technical assistance (component 3) remain unclear. Please describe more precisely the characteristics of expected MSMEs (proportion of micro and small producers) and IFIs beneficiaries, explain the mechanisms through which they will be selected (and on which basis/criteria), and clarify the extent to which their level of vulnerability will be taken into account during the selection process. CR 9: Since the MSMEs and the IFIs will be the beneficiaries of the project, the background/context section should clearly describe their respective vulnerability in light of climate change, and the expected impacts of climate change on their business systems. It seems especially important for IFIs, since they apparently include a variety of different institutions such as "*public/state banking entities, private banks, micro-financial institutions, non-bank financial institutions, and savings and credit cooperatives*" that are probably differently impacted by climate change. CR 10: Given the complexity of the sector that the project is seeking to support, the proposal should explain how the project will take into account the non-climatic barriers of the agricultural sectors in the different countries targeted by the project. CR 11: Since one of the lessons learned from the CAMBio project is that "*a profound assessment is required to understand sector niches and opportunities*", please explain whether such analysis has been performed, or if the project plans to conduct such study. CR 12: Please describe further the network of Intermediate Financial Institutions (including but not limited to membership types and criteria, meaning of "non-regulated" ones etc.) and the exact role they would play in delivering the components 1, 2 and 3. CR 13: As an overall comment, the proposal lacks of relevant references to existing literature/studies/analysis. The proposal should include additional references, to the extent possible, particularly to support the background/context, cost-effectiveness and expected benefits sections. CR 14: Please make sure that the context and background section covers all countries targeted by the project.

	For instance, Dominican Republic is currently missing from the “cultural characteristics” section. CR 15: Please discuss whether there is scope for the project to have broader impact, e.g., to trigger the establishment of an incentive or ranking system that IFIs can use for borrowers who can demonstrate that they are taking measures to reduce risk to climate change and increased variability. CR 16: Please elaborate further or how the 20 percent loan principal cash refund will be shared by the MSMEs and the IFI. Will it only cover the entire interest payment for the MSME, or also a sizeable portion of the principal? For the IFI, what is the precise nature of the financial benefit that these proceeds would provide? Will it cover the interest payment, or more? CR 17: In addition to clarifying the expected beneficiaries of the project and the criteria used to select them (see CR above), the proposal should include clear references to the equitable distribution of benefits to vulnerable communities, IFIs and MSMEs. CR 18: Given the presence of indigenous populations in all target countries, please outline the particular benefits provided by the project to those groups. CR 19: Please provide an overview of gender considerations vis-à-vis MSMEs in the participating countries (e.g. Are there several female-headed MSMEs? Do they face barriers or constraints that the project can help try to overcome?) and describe the benefits the project will provide in terms of gender considerations. CR 20: The proposal should clarify how will grant size be determined for the MSMEs, and how will it be determined whether the measures the MSMEs will implement (from Component 1) are being done in a cost-effective manner relative to the grant being received. CR 21: Please explain how it will be ensured that the AF grant size per MSMEs will depend on the adaptation actions that are undertaken, and not on the volume of the baseline loan. CR 22: Please identify any national relevant plans and strategies (e.g. national development plans, poverty reduction strategies) that are relevant to the proposed project, including the ones related to the agricultural sectors of the target countries, and the NAPA and NDC processes. CR 23: Please clarify the following sentence: “*It is also important to note that on June 9th, 2016 changes to CABEI’s constitutive agreement came into effect with changes to the Bank’s nature and objective, the characterization of its members and conditions for contracting guarantees or loans, as well as provisions for the*

	adhesion of new members in order to offer them options that are adapted to their particular conditions" (page 37). CR 24: Should a more complete description of activities be provided as per the CR made under section 2 above, please update this section accordingly with any additional impacts or risks that may have been identified. CR 25: For each ESP principle where further assessment and management is required for compliance with the ESP, please explain briefly how those risks will be further assessed and managed. CR 26: Despite the wide range of activities that could be supported through the project (i.e. integrated waste management, diversification of agricultural production, pest integrated management plan, reforestation etc.) and that the checklist of environmental and social principles shows that further assessments are required to comply with some principles of the ESP, the proposal classifies inconsistently the project as category C. According to the project description, the project would likely fall under a category B project (please refer to para 8 of the Fund's ESP for additional information: http://www.adaptation-fund.org/wp-content/uploads/2015/09/Environmental-Social-Policy-approved-Nov2013.pdf). Please amend the proposal accordingly. CR 27: the proposal states that Environmental Impact Assessments and water regulations will not be applicable to the project. This is inconsistent with the type of activities that the project could support. The proposal should identify any national standards, including the ones related to EIAs and water/agricultural specific regulations that the project will comply with. CR 28: Please demonstrate that the project does not overlap with the initiatives listed in that section. Similarly, please explain the complementarity with the initiatives listed in that section, when applicable. CR 29: Currently, only CABEI-funded initiatives are included in the analysis. However, other funding stakeholders are likely to support already relevant initiatives in the region or in the target countries. As a result, please identify any relevant regional or national-level projects/programmes and demonstrate the lack of overlap or complementarity with the proposed project. CR 30: Please be more specific regarding the activities and products that the project will deliver to capture the experience and lessons learned on the ground across the different countries, and from both the IFI's and the MSMEs' experience. Please briefly explain ways for MSMEs to share the vulnerabilities they face, how they decided which course of (adaptive) action was needed to overcome these, the role and relevance of technical assistance received, and their experience and success with implementing the adaptation measures. Please also consider critically evaluating experience with this innovative approach to engaging MSMEs in adaptation activities.

	CR 31: Please explain how the knowledge management outcomes and lessons learned will be disseminated to relevant stakeholders, and how they will be sustained overtime (i.e., after the project completion). CR 32: Please note that, according to "*Instructions for preparing a request for project or programme funding from the Adaptation Fund*" (see annex 5 of the Operational Policies and Guidelines of the Adaptation Fund): "*At the concept stage, an initial consultative process has to take place, with key stakeholders of the project/programme. Depending on the level of involvement of local communities or governments, private sector, CSOs or universities/research centres in the execution of the project/programme, those stakeholders may or may not be consulted at the concept stage. In project/programme target areas where minority groups and indigenous peoples have been identified, they should be consulted at the concept stage and their interests or concerns taken into account when designing the proposal*". As there is no currently no evidence in the proposal that such process took place please confirm whether or not such initial consultation process has taken place and provide. If it did, please provide the outcomes of such consultations and explain on how they have informed the design of the project concept. CR 33: The activities planned under components 2 (incentive schemes over the loans provided under component 1) and 3 (including technical assistance for the implementation of loans provided under component 1) are directly linked to the implementation of component 1. The "*Instructions for preparing a request for project or programme funding from the Adaptation Fund*" (see annex 5 of the Operational Policies and Guidelines of the Adaptation Fund) stipulates that "*the Adaptation Fund project should be able to deliver its outcomes and outputs regardless of the success of the other project(s)*". Since the achievements of components 2 and 3 depend entirely on the delivery of component 1, please explain how the project will ensure that the activities of components 2 and 3 (i.e. activities supported by the Adaptation Fund) will be delivered regardless of the progress/achievement of outcome 1. CR 34: Please elaborate on how the long-term financial and economic sustainability of the incentives schemes and activities planned under component 3 will be ensured. CR 35: Similarly, please describe further how the institution, policy and governance sustainability of the components 2 and 3 will be ensured over time (i.e. after the project completion) from an institutional, policies and governance standpoints. CR 36: Please clarify what is the expected level of involvements of governments' agencies in the project's execution?

	CR 37: Please describe the system through which the project will ensure that the IFIs and MSMEs comply with the AF ESP. CR 38: Please explain if participation of the National Implementing Entities accredited for the proposed participating countries (namely Fundecooperacion in Costa-Rica, Fundacion Natura in Panama and the Instituto Dominicano de Desarrollo Integral (IDDI) in Dominican Republic) has been considered, and if they have been consulted for their interest in partnering in the project. CR 39: Please clarify who will be the executing entities of the project, as the proposal gives contradictory information, first by designating CABEI (and its "Project Coordination Unit") and then explaining that IFIs will be in charge of the execution of components 2 and 3. The revised proposal has addressed some of the issues raised during the initial technical review. However, questions related to the implementation arrangements, the compliance with the full cost of adaptation reasoning criteria, the selection of IFIs and MSMEs beneficiaries, the consultative process, the technical standards that would apply to the project, and the sustainability of some activities, remain. The final project review finds that the proposal fails to correctly address the corrective action requests and clarifications requests made in the initial review. The following observations are made: - The proposal should describe the criteria that would be used to select both the IFIs and MSMEs that would benefit from the project; - The proposal should address the question of potential conflict of interest due to the fact that CABEI will be implementing, executing, monitoring and evaluating its own work; - The proposal should address the criteria of full cost of adaptation reasoning; - The proposal should identify any relevant technical standards that would apply to the project, and demonstrate compliance of the proposal with such standards; - The proposal should provide further evidence of consultations with key stakeholders; - The proposal should demonstrate further the sustainability of the programme.
Date:	12 September 2016

ADAPTATION FUND
ADAPTATION FUND

REGIONAL PROJECT/PROGRAMME PROPOSAL

PART I: PROJECT/PROGRAMME INFORMATION

Title of Project/Programme:	Productive Investment Initiative for Adaptation to Climate Change
Countries:	Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, ~~Panamá~~Panama and Dominican Republic
Thematic Focal Area[1]:	Innovation in adaptation finance
Type of Implementing Entity:	Regional
Implementing Entity:	Central American Bank for Economic Integration (CABEI)
Executing Entities:	~~CABEI~~ Project ~~Coordination~~Administration Unit
Amount of Financing Requested:	5.0 million (in U.S Dollars Equivalent)

Project / Programme Background and Context:

Provide brief information on the problem the proposed project/programme is aiming to solve, including both the regional and the country perspective. Outline the economic social, development and environmental context in which the project would operate in those countries.

I. Introduction

Central America and the Caribbean is one of the regions most affected by climate change. Droughts, hurricanes and El Niño-Southern Oscillation phenomenon are intensifying their impact in the region and will continue to strengthen their intensity and regularity. Agriculture as climate-dependent activity and one of the main sources of income for regional economies, will be gravely affected due to effects of climate change.

~~At the same time~~ Furthermore, Central America is a region with biodiverse ecosystems~~. These ecosystems~~ that are already being overexploited due to the current unsustainable development model which will be further aggravated by climate change. The most acute rural poverty in Central America occurs precisely in these agricultural frontier areas, where the proportion of micro, small and medium scale farmers is highly relevant. In

[1] Thematic areas are: Food security; Disaster risk reduction and early warning systems; Transboundary water management; Innovation in adaptation finance.

addition, these areas are characterized by little presence of public and financial institutions, minimal social infrastructure and lack of governance.

~~These~~The Central American countries have ~~almost~~approximately 2.1 million small family agricultural production units or Micro, Small and Medium Enterprises (MSMEs) ~~of~~with 5 hectares or less of land. The majority of these production units are considered vulnerable in the face of climate change, pests, diseases and market price fluctuations.

One of the main constraint that limits ~~for~~ the growth of any of these small agricultural production units is the limited access to credit. Conservative banking practices and high risks associated with operations in rural areas, have left the agricultural sector with limited financial options ~~fur~~for business development. In order to achieve an environment that promotes resilient investments in micro, small and medium sized enterprises barriers in banking and business need to be removed and incentives put in place.

This project's **main objective** is to build capacities that implement adaptation measures for micro, small and medium agricultural enterprises ~~from~~ in ~~Honduras,~~ Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, Panama and the Dominican Republic, in order ~~and~~to increase their resilience to climate change, ensuring the provision of financial and non-financial services to support ecosystems and agricultural production by providing technical assistance in the adaptation planning processes and incentives for specific alternatives of resilience and investment management options.

The project has the following three components:

a) **Component 1: Innovative financial mechanisms for ecosystem based adaptation measures**: Loans will be provided through regulated and non-regulated intermediary financial institutions (IFIs) that are accredited by CABEI. The adoption of ~~agro-ecological measures, conservation programs and direct~~ adaptation measures ~~to extreme hydro meteorological events will be encouraged~~in the face of climate change impacts, based on sustainable management of resources with an ecosystem-based approach in their productive systems. In the project areas, ecosystem services that will be enhanced which can include freshwater distribution and regulation, protection against extreme weather events, flood regulation, prevention of the spread of alien species, nutrient cycling, and soil formation, among others.

b) ~~**Component 2: Incentive scheme to promote ecosystem-based adaptation measures (Bio-Bonus).** Incentives Conservation incentives provided to support changes in attitudes towards conservation and the~~

~~sustainable use of natural resources (land, water, forest, biodiversity) through the implementation of adaptation measures on MSMEs productive systems. In addition, the incentives will support IFIs adoption of green credit mechanism that enhance adaptation measures could thus afford to service the loan and will be induced to plan environmentally friendly investments. Incentives consist in a 20% cash refund on the loan principal granted by the regulated or non-regulated IFIs (up to USD 10,000). This incentive will be distributed between MSME and IFIs.~~

c) **Component ~~3~~2: Capacity building for the development of production models resilient to climate change.** Its purpose is to support MSMEs through grants, ~~directed at~~ improving their technical and business skills which can enhance the efficiency and competitiveness of their business~~.~~ through the adoption of adaptation measures. These grants can be used for: 1) Sectorial development Initiatives, 2) Pre-investment and 3) Capacity Building related to credit management. These are further developed in Section II-A.

d) **Component 3: Incentive scheme to promote ecosystem-based adaptation measures (Adapt-Award).** Adaptation incentives provided to support changes in attitudes towards conservation and the sustainable use of natural resources (land, water, forest, biodiversity) through the implementation of adaptation measures on MSMEs productive systems. In addition, the incentives will support IFIs adoption of green credit mechanism that enhance adaptation measures could thus afford to service the loan and will be induced to plan adaptation investments. Incentives consist in a 20% cash refund on the loan principal granted by the regulated or non-regulated IFIs (up to USD 10,000). This incentive will be distributed between MSME and IFIs.

II. Project Context

~~*a) Major recent climate changes, projections, impacts and vulnerability in Central America*~~[2]

[2] ~~Based on: Magrin, G.O., J.A. Marengo, J.-P. Boulanger, M.S. Buckeridge, E. Castellanos, G. Poveda, F.R. Scarano, and S. Vicuña, 2014: Central and South America. In: Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part B: Regional Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Barros, V.R., C.B. Field, D.J. Dokken, M.D. Mastrandrea, K.J. Mach, T.E. Bilir, M. Chatterjee, K.L. Ebi, Y.O. Estrada, R.C. Genova, B. Girma, E.S. Kissel, A.N. Levy, S. MacCracken, P.R. Mastrandrea, and L.L.White (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, pp. 1499-1566.~~

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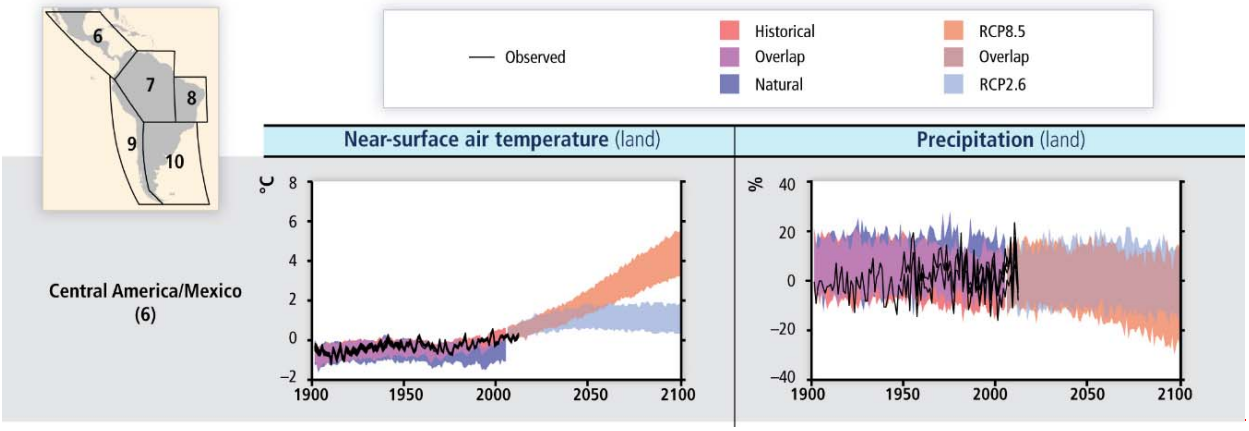

Source: IPCC Fifth Assessment Report, 2014

Climate projections suggest increases in temperature, and variations in precipitation for Central America by 2100. In post Fourth Assessment Report (AR4) climate projections, derived from dynamic downscaling forced by Coupled Model Intercomparison Project Phase 3 (CMIP3) models for various Special Report on Emission Scenarios (SRES) scenarios, and from different global climate models from the CMIP5 for various Representative Concentration Pathways (RCPs) (4.5 and 8.5), warming varies from +1.6°C to +4.0°C with medium confidence. Rainfall changes for CA range between −22 and +7% by 2100.

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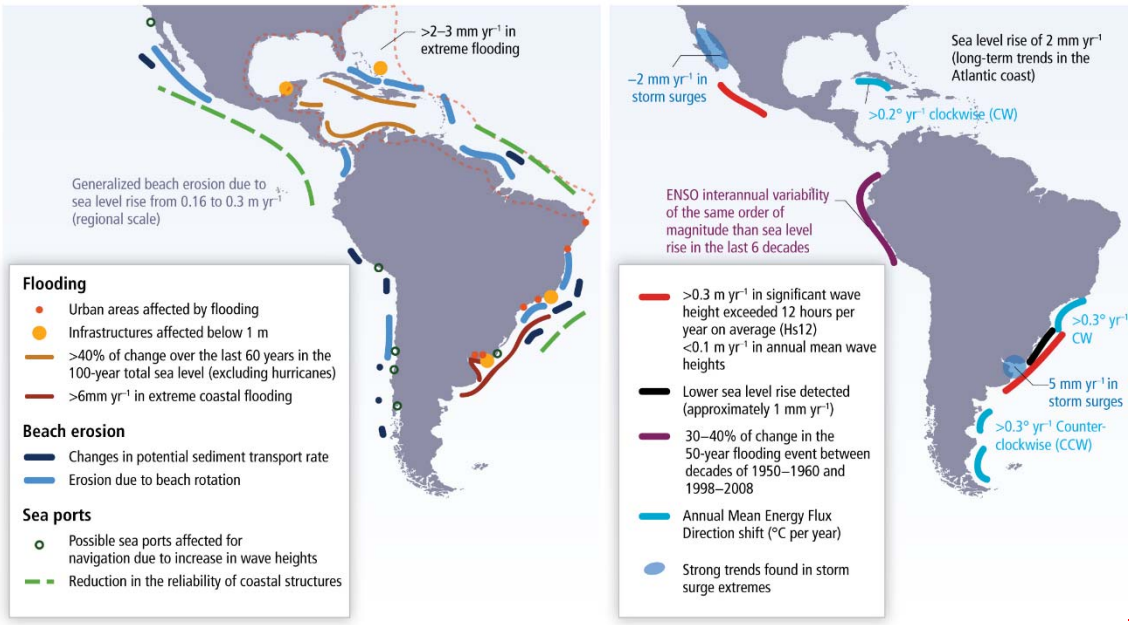

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~~*b)*~~*a)* ~~***Agricultural sector and climate change***~~

~~Agriculture in Central America is especially sensitive to weather- and climate-related factors because of these countries' geographical location and their socioeconomic and technological characteristics. It is the production sector that has sustained the greatest losses as a result of extreme weather events in recent decades. This is particularly serious as the agricultural sector accounts for just 9% of the sub-region's GDP, but employs 30% of the working population and produces key inputs for the agro-industrial.~~

~~Initial estimates based on climate change scenarios suggest that grain production could drop significantly during this century (decreases in yields of up to about 35%, 43% and 50% for maize, beans and rice, respectively, by the end of the century under the A2 scenario and of 17%, 19% and 30% under the B2 scenario relative to the yields of the last decade, assuming the absence of adaptive measures). These potential losses would have a direct impact on producers, most of whom operate as family businesses at subsistence levels, but they would also impact food security, poverty and the degree of dependence on grain imports, which has already been rising over the past three decades (ECLAC, 2013d).~~

~~The available evidence for Central America indicates that environmental degradation and the destruction of biodiversity are processes that are already in full sway and that will very probably become more marked as climate change progresses. For example, the potential biodiversity index (PBI) for Central America points to a reduction of approximately 13% during this century as a result of changes in land use (without climate change). Climate change is projected to boost this loss to something between 33% and 58% (respectively, for scenarios B2 and A2) by the end of the century (see map III.1) (ECLAC, 2011b).~~

~~c)~~*b)* *Socio-economic context.*

i. Physical characteristics.

Central America ~~has~~and the Dominican Republic have a surface area of 498,910 km^2, the largest portion of which pertains to Nicaragua, Honduras and Guatemala. Its coastal line means 6,229 km and its average highest altitude reaches 3,256 m above sea level, Nicaragua having the lowest altitude and Guatemala, the highest.

Table No.1 Beneficiaries countries physical characteristics.

Countries	Surface area (km^2)	Coastal line (km)	Highest altitude (m above sea level)
Panama	75,420	2,490	3,475
Costa Rica	51,100	1,290	3,810
El Salvador	21,041	307	2,730
Guatemala	108,889	400	4,211
Honduras	112,090	832	2,870
Nicaragua	130,370	910	2,438
Dominican Rep.	48,670	1,288	3,175
Total/Average	**498,910**	**6,229**	**3,244**

Source: CIA World Factbook

ii. Demographic characteristics.

The Central American population in year 2015 is 46.1 million and the Dominican Republic population reaches 10.5 million. Guatemala is the most populated country (16.1 million) and Panama, the least populated (almost 4 million). 64.1% of the regional population lives in urban areas although Guatemala has the lowest rate (50.7%) and the Dominican Republic, the highest rate (79%). Population's average age is 25.3 years old, and Guatemala is the country with the youngest population, with an average age of 19.7 years. Lastly, Central American's population is growing at an average annual rate of 1.5%, with Guatemala being the country with the highest rate (2.5%) and El Salvador, the lowest (0.7%).

Table No.2 Beneficiaries countries demographic characteristics.

Countries	**Total population** Thousands of persons (2015) (a)	**Urban population** (%) (b)	**Average age** (years) (b)	**Annual average growth rate** (%)
Panama	3,989	76.5	28.5	1.6
Costa Rica	4,978	65.6	30.6	1.4
El Salvador	6,405	65.8	24.7	0.7
Guatemala	16,158	50.7	19.7	2.5
Honduras	8,378	53.3	22.5	2.0
Nicaragua	6,236	58.1	23.8	1.4
Dominican Rep.	10,479 (c)	79 (c)	27.4 (c)	1.23 (c)
Total/Average	**56,623**	**64.1**	**25.3**	**1.5**

Source: (a) Cepredenac, Informe Regional del Estado de la Vulnerabilidad y Riesgos de Desastre en Centroamérica [Regional report on vulnerability and risks of disasters in Central America]; (b) UNDP, Informe sobre Desarrollo Humano 2014 [2014 Human development report]; (c) CIA World Factbook.

iii. Cultural characteristics.

The Central American region features a wide variety of ethnic groups across its territory, including white population (22%), mestizo population (59.1%), indigenous population (9.9%) and Afro-descendant population (6.9%). Costa Rica is the country with the greatest proportion of white population (65%), El Salvador has the greatest mestizo population (86.2%), Guatemala hast the greatest indigenous population (39.3%), and Panama, the greatest Afro-descendant population (14%) The Dominican Republic has 16% white population, 11% Afro-descendant population and 73% mestizo population (CIA World Factbook).

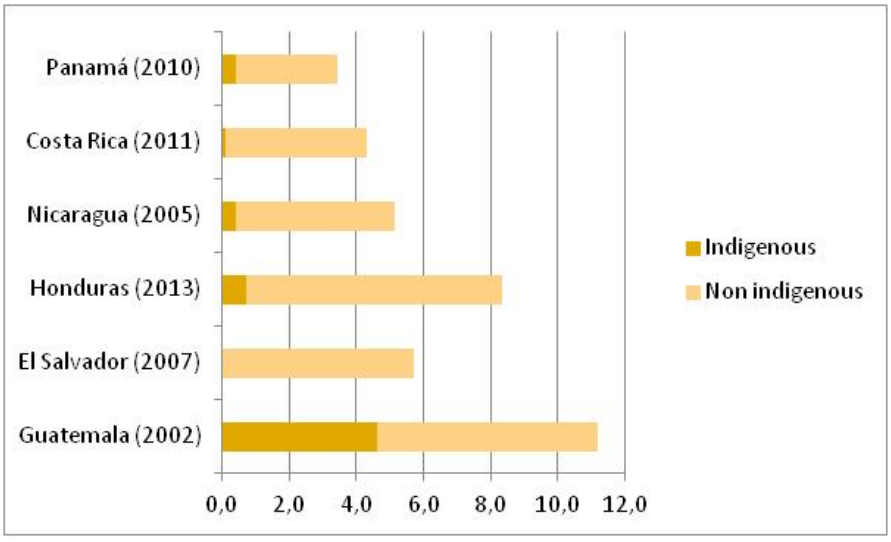
Table No.3 Beneficiaries countries ethnic characteristics (%)

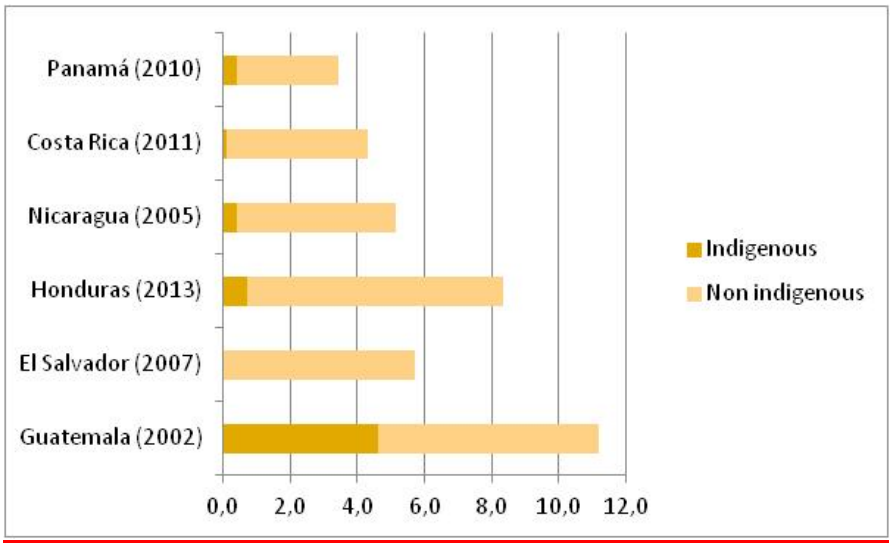
Countries	White population	Mestizo population	Indigenous population	Afro-descendant population	Asian population	Immigrants
Panama	10.0	65.3	5.0	14.0	3.0	2.7
Costa Rica	65.0	13.0	2.0	10.0	1.0	9.0
El Salvador	12.0	86.2	1.0	0.0	0.0	0.8
Guatemala	18.5	40.0	39.3	1.0	0.2	1.0
Honduras	13.0	81.7	7.0	8.0	0.0	0.3
Nicaragua	17.0	68.4	5.0	8.5	0.5	0.6
Average	**22.6**	**59.1**	**9.9**	**6.9**	**0.3**	**2.4**

Source: (a) Cepredenac, *Informe Regional del Estado de la Vulnerabilidad y Riesgos de Desastre en Centroamérica* [Regional report on vulnerability and risks of disasters in Central America]; (b) UNDP, *Informe sobre Desarrollo Humano 2014* [2014 Human development report]. For the Dominican Republic, no information could be found because their census does not provide for such variable.

The following chart shows compiled information on indigenous and non-indigenous population of Central American countries.

Chart No.1 Indigenous and non-indigenous population in Central American countries (millions).





Source: Prepared by the author based on National Censuses. For the Dominican Republic, no information could be found because their census does not provide for such variable.

iv. Poverty situation.

During 2011, approximately 41% of regional population was under the poverty line, with Honduras (67.6%) and Guatemala (53.7%) featuring the highest percentages. Thus, 16.8 percent of the population lives in conditions of extreme poverty, with Honduras (43.9%) featuring the highest percentage.

Table No.4 Beneficiaries countries poverty situation.

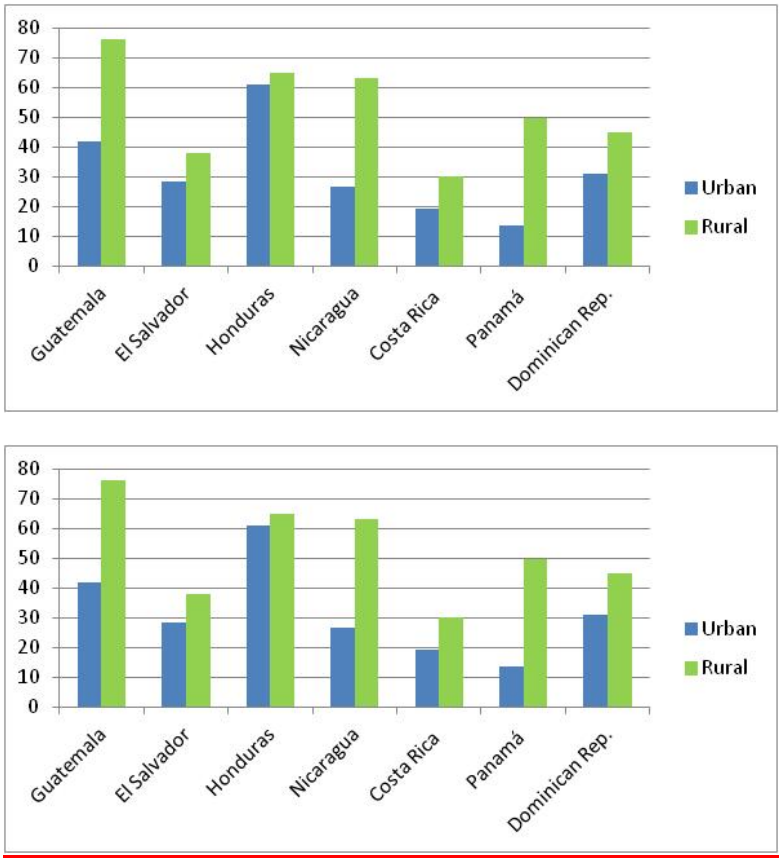
Countries	**Population under poverty line** (%)	**Population under extreme poverty line** (%)
Panama	25.3	12.4
Costa Rica	24.8	7.3
El Salvador	47.5	15.5
Guatemala	53.7	13.3
Honduras	67.6	43.9
Nicaragua	44.1	8.2
Dominican Rep.	25.99	7.5
Average	**41.3**	**15.4**

Source: For Central America: ERCA, 2014 Central America Statistics; for Dominican Republic, 2014 Poverty Map of the Dominican Republic, prepared with micro-scale data of the 2011 National Labor Survey [Encuesta Nacional de Fuerza de Trabajo 2011].

Studying the poverty statistics broken down per rural and urban poverty, we can observe that in each one of the 7 countries, the highest percentage poverty is located by far in rural areas. Some of the biggest contrasts are found in Nicaragua, with 63.3% more poverty in the rural medium, as compared with 26.8% in cities; in Guatemala,

there is 76.1% in rural medium as opposed to 42.1% in cities; or in Panama, where the poverty index is among the region's lowest but a considerable variation occurs between rural poverty and urban poverty (almost 50% vs. 13.8%).

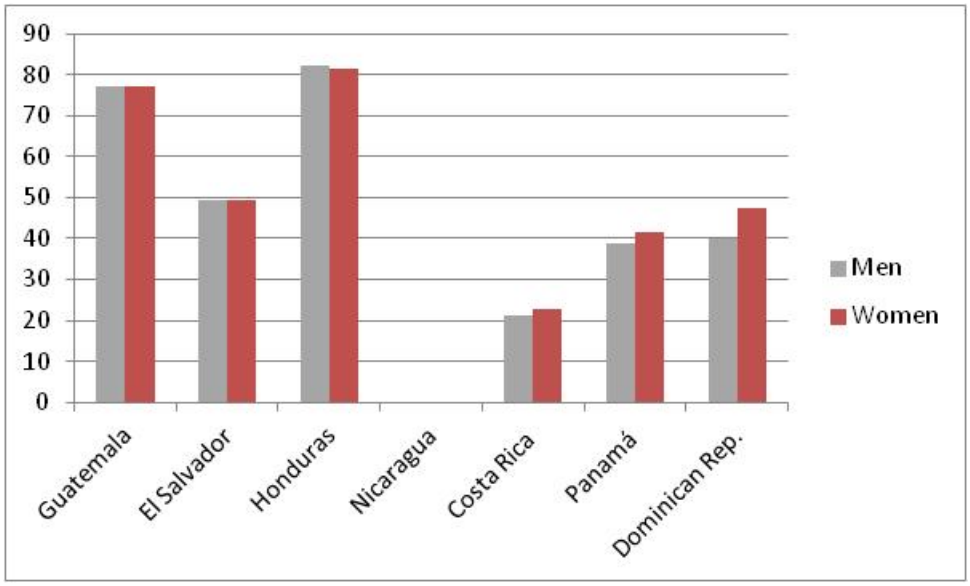
Chart No.2 Poverty incidence per national poverty line, in urban and rural media (%).

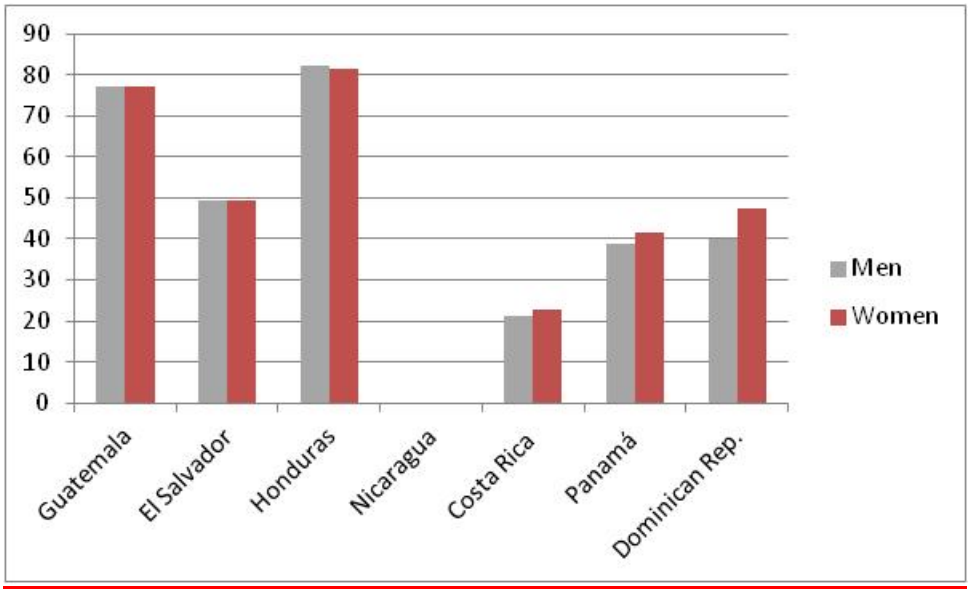


Source: Prepared by the author based on CEPALSTAT data. Information from the Multi-purpose Household Survey for El Salvador, from the National Survey on Living Conditions for Guatemala, and database from the World Bank for Honduras. 2014 Information for all except for El Salvador (2009).

According to statistics, this rural poverty would be relatively balanced between men and women in Guatemala, El Salvador, and Honduras. There would be a higher percentage of rural women than men in poverty conditions for Costa Rica (19.3% women vs 17.8% men) and in Panama (21.7% women vs. 20.7% men). This is significantly more so in Dominican Republic where 40.1% of rural women are poor as opposed to 34.3% rural men.

Chart No.3 Population in poverty situation broken down per sex (total percentage of the population in rural medium).





Source: Prepared by the author based on data of the CEPAL: Economic Commission for Latin America and the Caribbean - Statistics Division. Social Statistics Unit, based on the special tabulations of the household surveys for the relevant countries. Nicaragua: without information

v. Healthcare Characteristics.

According to the UNDP Human Development Report (2014), the mortality rates for the newborn and infants of less than 5 years are highest for Guatemala (27 and 32 every 1,000 born alive, respectively). Growth restriction is the highest in Guatemala (48%). As far as adults are concerned, the highest mortality rates (138 for women and 294 for men) pertain to El Salvador.

vi. Education Characteristics.

Costa Rica has the highest rates of literacy in Central America both for adults (96.3%) and for young population (98.3%). The highest gross rate for preschool enrollment belongs to Costa Rica (73%), primary school, to Guatemala and El Salvador (114%) and secondary school and tertiary education to Costa Rica (101% and 47%, respectively). The highest dropout rate goes to Nicaragua (51.6%) followed by Honduras (30.4%) and by Guatemala (29%).

vii. Labor sector and Economically Active Population Characteristics

The region's highest employment rate belongs to Guatemala (69.1%) and highest youth unemployment occurs in Costa Rica (18.4%). Adult unemployment is greatest in Costa Rica and Nicaragua (7.8%), child labor is highest in Guatemala (25.8%), and the participation of poor workers is highest in Honduras (29.6 % of total employment). Paid maternity leave has the longest duration in Costa Rica, with 120 days.

Table No.5 Labor and Vulnerability in Central America

Countries	Employment Rate	Precarious work	Youth unemployment	Unemployment Rate	Child Labor	Poor worker share	Duration of maternity leave
	(% of 25 years and older)	(% of total employment)	(% between 15 and 24 years)	(% of population of 15 years or older)	(% of 5 to 24 years)	(% of total employment)	(days)
	2012	2003-2012	2008-2012	2004-2013	2005-2012	2003-2010	2013
Panama	68.8	29.2	10.3	6.5	5.6	6.8	98
Costa Rica	64.0	20.2	18.4	7.8	4.7	4.2	120
El Salvador	64.5	---	12.4	6.4	10.4	12.1	84
Guatemala	69.1	---	7.5	2.9	25.8	---	84
Honduras	66.6	---	8.0	4.3	15.6	29.6	84
Nicaragua	65.5	---	11.9	7.8	14.5	27.4	84

Source: PNUD, *Informe sobre Desarrollo Humano* 2014. [UNDP 2014 Human development report]

In Central America and the Dominican Republic, more than 6 and a half million people, approximately 25% of the population, are dependent on the primary sector, which is highly dependent on climate and quality of ecosystems. The ~~chart~~table below shows the proportion of the Economically Active Population in each sector.

Table No. 6 Beneficiaries countries Structure of Economically Active Population per production sector

Countries	EAP (a) (b) (thousands of people)	Tertiary (b) (services)	Secondary (c) (industries)	Primary (d) (agriculture)
Panama	1,743	64.4%	18.6%	17.0%
Costa Rica	2,211	64.0%	22.0%	14.0%
El Salvador	2,795	58.0%	20.0%	21.0%
Guatemala	5,909	48.0%	14.0%	38.0%
Honduras	3,628	39.8%	20.9%	39.2%
Nicaragua	3,209	50.0%	18.0%	31.0%
Dominican Rep.	4,930	64.7%	20.8%	14.4%
Summation/Average	**24,425**	**55.6%**	**19.2%**	**31.0%**

Source: (a) ERCA, *Estadísticas de Centroamérica 2014*, information of 2013; (b) The World Factbook https://www.cia.gov/library/publications/the-world-factbook/geos/nu.html.

viii. Food security and nutrition

The prevalence of underfeeding means the likelihood of any one person, randomly selected, of consuming a quantity of calories insufficient to cover his or her energy requirements for a healthy, active life. In Central America, the highest likelihood of underfeeding is found in Nicaragua (16.8%), followed by Guatemala (14.3%) and El Salvador (13.5%).

c) Major recent climate changes, projections, impacts and vulnerability in Central America and Dominican Republic[3]

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Climate change is heightening its social and economic vulnerability and it will have an increasingly strong influence on its economic growth, since weather-related factors have a decisive impact on many of its production activities, such as agriculture and hydropower generation.

The region has valuable stocks of natural and cultural assets that must be preserved and appreciated for the contribution that they make to the development of current and future generations. Its ecosystems and abundance of biodiversity provide a wide range of products and services, including pollination, pest control, and the regulation of humidity, river flows and local climatic conditions, nevertheless they are being undermined by the current unsustainable style of development. It is estimated that Central America produces no more than a tiny fraction of global greenhouse gasses (less than 0.3% of emissions, without factoring in changes in land use, and under 0.8% of total (gross) emissions).

Significant trends in precipitation and temperature have been observed in Central America with high confidence of the estimations. In addition, changes in climate variability and in extreme events have severely affected the region. Decreasing trends of precipitations in the region have registered, –1 mm a day in 50 years during 1950–2008.Warming has been detected near 0.7°C to 1°C in 40 years since the mid-1970s. Increases in temperature have been identified with medium confidence of the estimations, while more frequent extreme rainfall has favored the occurrence of landslides and flash floods.

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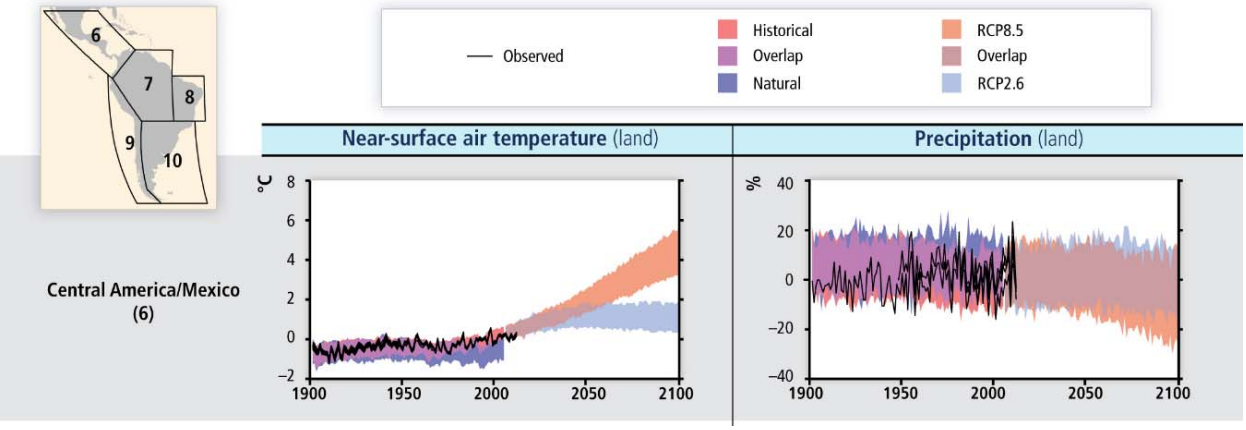

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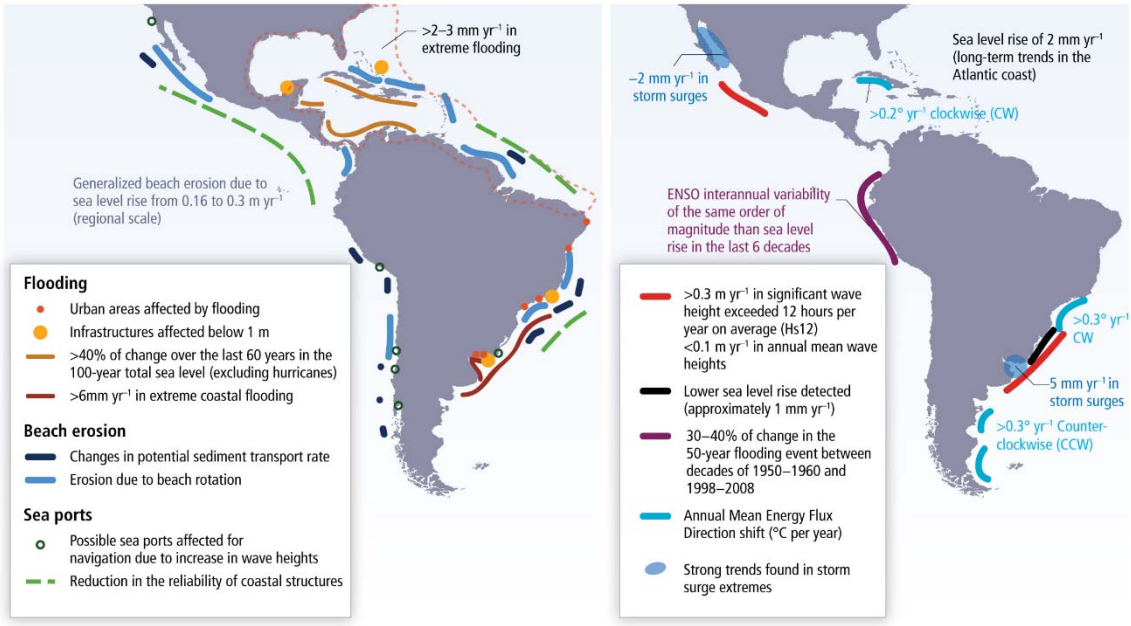

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The evidence suggests that climate change is already having significant impacts in Latin America and the Caribbean and that, in all probability, its impacts will be even greater in the future. The effects in the region are unevenly distributed, non-linear and are actually positive in some cases and for some periods, although the long-term effects are primarily negative. For example, there is evidence of major impacts on agricultural activities, water resources, biodiversity, sea levels, forests, tourism, the population's health and the region's cities.

This evidence is, however, still fragmented in many cases and surrounded by a great deal of uncertainty, which makes it difficult to aggregate or to use as a basis for comparison. Nonetheless, there are a number of studies that estimate some of the major economic costs of climate change for Latin America and the Caribbean. Aggregate estimates put the economic cost of a 2.5°C rise in temperature (most probably around 2050) for the region at between 1.5% and 5% of the region's present GDP. These are conservative estimates entailing a high degree of uncertainty. In addition, they are limited to certain sectors and regions and are subject to a variety of methodological limitations that make it difficult to factor in adaptation processes and the potential effects of extreme weather events.

i. Climate changes, projections, impacts and vulnerability in the Participant Countries

In this section, future climate parameters in the Participant Countries, their potential impacts and vulnerability assessments are described.

This information has been extracted from the National Climate Change Communications to UNFCCC and/or Climate Change/ Adaptation Policies. It is important to note that each country has different levels of development of vulnerability assessments and identification of adaptation needs.

Guatemala[4]

The analysis of the behavior of climate variables between 1971 and 2000 (base period) and between 2001 and 2014 (current period) shows increases in both annual average temperature as well as in total annual rainfall in the current period when compared with the base period.

The largest increments in annual average temperature were observed in the coldest regions (Western Highlands) with increases between 9.4 and 10.3%; in the warmer regions Pacific and Caribbean, increases observed were lower, between 0.8 and 1.5%.

Temperature projections show an upward trend, with expected increments for the decade of 2050 of between 2.5 and 4.1°C, and between 3.3 and 5.4°C for the decade of 2070.

[4] Second National Climate Change Communication by Guatemala, 2015, by the Ministry of Environment and Natural Resources (MARN).

Regarding total annual rainfall, all regions show changes: in the North region (Flores station), a 48% increase is reported, while the Caribbean and the Transversal regions show smaller relative increments, between 2.3% and 9.6%. An 18% increase (with a variation between 13.2 and 27.6%) was reported in the rest of the climate regions. Total rainfall projections starting in the decade of 2030 show a downward trend. It is expected that, by the decade of 2050, reductions in rainfall will be of 9.5% to 12.4%, and 18.4% to 28.9% for the decade of 2070.

Figure No.3: Hydric stress 2011-2050- source: Biota and TNC 2014

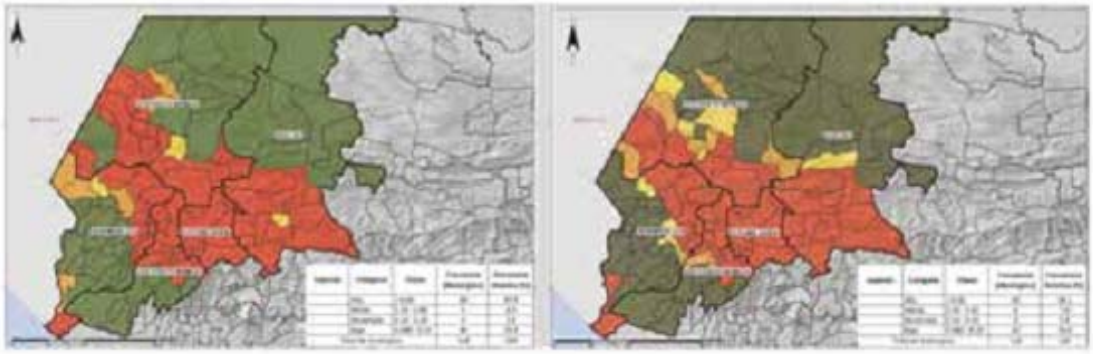
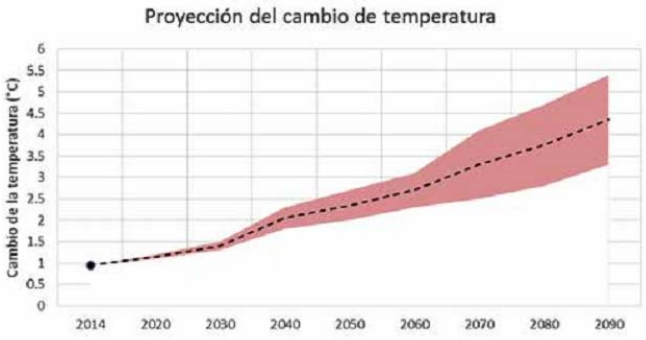
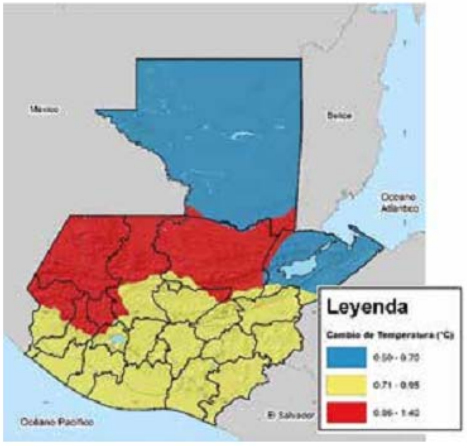


Figure No. 4: Temperature forecast and changes by region. Source INSIVUMEH 2015





Assessment of Vulnerability to Climate Change

A reduction in the availability of water resources is expected due to the reduction of annual rainfall and higher temperatures in the medium and long terms. **Projections on water availability indicate a reduction from 5% to 30% by 2050 over the current period (2010).**

Areas located in the dry corridor (from the border of El Salvador and Honduras to the border of Mexico) and the Petén area will present less water availability by 2050.

The variability in the hydrologic cycle has made the vulnerability of the energy sector evident. Years with strong droughts associated to El Niño (for example July 2009 to April 2010) caused a 34% reduction in hydroelectric generation compared with the generation from the previous year. **Small farmers are seriously impacted by droughts associated to climate change**. Assessments show that farmers lose, on average, 55% of their basic grain production during drought periods. The response capacity of these farmers is very low, since **only 16% of the farmers interviewed take specific actions to adapt**.

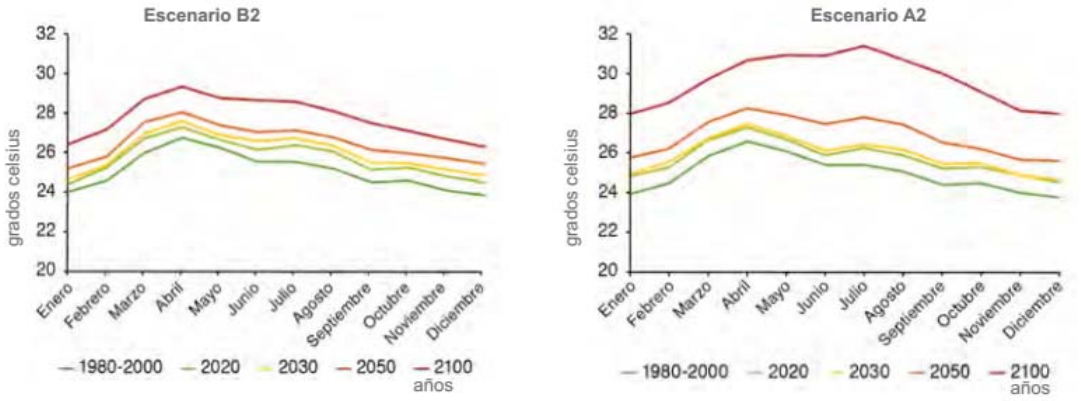
El Salvador[5]

Historical trends show that annual cumulative rainfall recorded in El Salvador has been highly variable, ranging from a minimum of 1,274 mm and a maximum of 2,310 mm between 1950 and 2006. While the average temperature in the country increased by 1.3°C when compared with the 1950s, it is remarkable that the greatest increase started in the 1990s. As far as sea level, the average increased approximately 7.8 cm, at an average rate of 1.3 mm per year. With respect to waves, changes were detected in the average wave height of 28 cm (4.7 mm per year) with hangs in the environment 0.12°N/year in the average direction of wave energy and above 20 cm of extreme wave heights in the last three decades (about 2 cm per year).

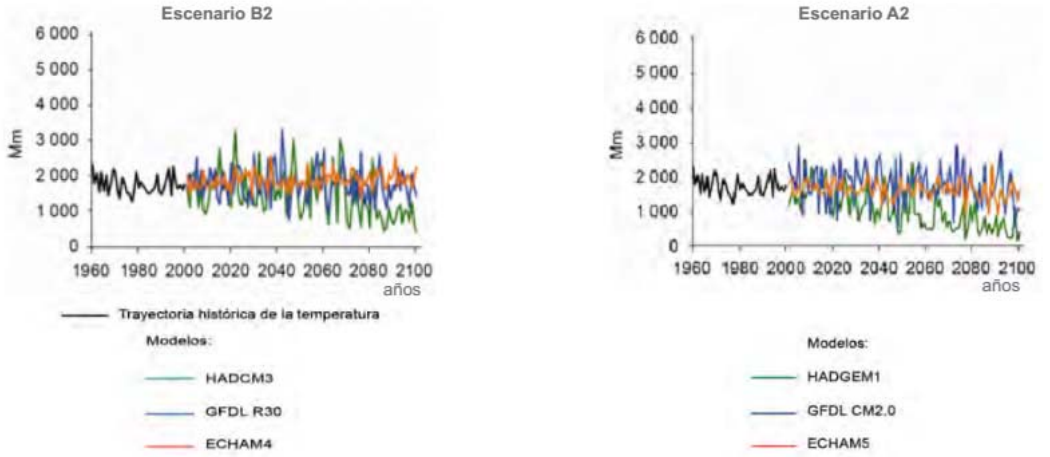
From the information provided by El Salvador climate change scenarios - results shown in the following figures - it is evident that there is a tendency for the temperature to increase and that there are significant changes in rainfall patterns and availability of water resources. For all the above and in a context of a highly degraded territory, it becomes urgent to implement adaptation measures, strategies and policies at all levels.

Figure No. 5 El Salvador temperature and precipitation scenarios

[5] Second National Climate Change Communication by El Salvador, spearheaded by the Ministry of Environment and Natural Resources (MARN).



Fuente: CEPAL, COSEFIN, CCAD/SICA, UKAID y DANIDA, 2011.



Nota: ver nota de Tabla 4.
Fuente: CEPAL, CCAD/SICA, UKAID y DANIDA, 2011a.

Strategically addressing those vulnerabilities with high potential for irreversible damage or adverse impacts that extend across several key sectors of the economy is a central focus of the El Salvador's Strategy.

Three priority action lines have been identified:

- Sectoral adaptation strategies, with emphasis on agriculture, water resources, infrastructure and health. Water resources, agriculture, road infrastructure and health are being increasingly affected by climate change so it is critical to implement priority actions under a holistic approach that integrate the needs of the sectors and the transformation of any actions that adversely impact these sectors. In that sense, Biodiversity, Environmental Sanitation and Water Resource are synergized with the other strategies of the National Environmental Policy.

- Restoration of critical ecosystems and rural landscapes. The rural areas of El Salvador are extremely vulnerable to climate change due to their levels of

environmental degradation and it is necessary to advance in an ambitious restoration program, as proposed in the National Ecosystem and Landscapes Restoration program (PREP, in Spanish), the adaptation flagship program in the country.

- Urban and coastal zoning. It is essential to work in the zoning of urban growth in order to reduce risk and advance in climate change adaptation, given the uncontrolled expansion of urban areas over water infiltration areas sensitive to landslides or unsuitable for that use. This not only increases the risk of flooding and other impacts of climate phenomena but also reduces local water supply, increasing the risk of water stress. A similar problem arises in the coastal area where the expansion of various activities on fragile ecosystems such as mangroves and excessive extraction of water from shallow aquifers threatens irreversible loss of these resources, already threatened by saline intrusion, extreme weather events, the sea level rise and other effects of climate change.

Honduras[6]

The country has hot tropical climate in low lands, which gradually turns into temperate climate in higher ground. Average temperature is 26°C up to elevation 600 (low lands of the Caribbean ocean), 16 to 24°C between elevations 600 and 2100, and less than 16°C above the latter. The southern area (Choluteca) features dry climate with annual average temperature of about 28°C. The precipitation regime is highly variable across the country, ranging between 900 and 3300 mm depending on the specific region.

Based on the scenarios of greenhouse gas emissions and the models selected, we could expect changes in precipitation and temperature for year 2020 consisting in a 6% reduction of the annual precipitation in the departments of Cortes, Santa Bárbara, Copán, Ocotepeque, Lempira, Intibucá, Comayagua , La Paz, Francisco Morazán, El Paraíso, Valle and Choluteca; and a 0.8°C increase in annual mean temperature, especially in the western and southern departments of the country, including the south of departments Comayagua, Francisco Morazán and El Paraíso.

The eastern portion of department of Colon and Olancho, together with the entire department of Gracias a Dios, is the region with the lesser precipitation decrease and temperature increase.

By year 2050, a decrease in precipitation is estimated with values that go from 20% to 25% in most part of the national territory between June and August. However, such

[6] Second national communication to the United Nations Framework Convention on Climate Change. Project Number 00048973

decrease is more pronounced during July and August when the deficit exceeds 30% for the most part of the territory, specially for the departments included in the western half of Honduras.

This leads us to believe that the "Indian summer", which is an unseasonably decrease in rain in the middle of the rainy season for the most part of the national territory will be longer, hotter and drier than as we know it to be today. Scenarios for year 2090 are worrisome due to the anticipated changes specially for the months of July and August, where only 40% or 30% of the rain would fall as opposed to the current rainfall, where temperature would increase by more than 4°C in most part of Honduras, and where the atmospheric pressure would rise by almost one hPa. With these conditions, we may assume that during such months, the wind flow from the North-East would be strengthened, and a block mechanism would settle in, preventing tropical phenomena that cause rainfall from developing.

Such conditions of rainfall deficit and high temperatures during July and August are similar to the conditions occurring under the influence of El Niño-Southern Oscillation phenomena. We think this could be a sign of such phenomena becoming more frequent and intense due to global warming. Under such scenarios, staple crops grown in the south and west of Honduras would virtually disappear if no adaptation measures are taken in the face of such changes.[7]

Nicaragua[8]

Projections indicate a much warmer climate, in which the range of temperature variations in the Pacific Region could decrease, while the pattern of precipitations indicates, with relatively less uncertainty, a reduction of precipitations over the Atlantic Region. In Southern Nicaragua, projections indicate a possible increase of rains, which is related to the permanent increase in precipitations observed in a broad area over Costa Rica and Panama.

The results of emission scenarios show that the average air temperature in Nicaragua will increase significantly. For the period from 2071 to 2099, there could be an increase of temperature of 3,0°C to 4,0°C. The annual anomalies or variations will be greater in the Pacific Region than in the Atlantic Region, and increases will be higher in the months of July to October.

Estimates of future average air temperatures show significant increases, from 3.0°C to 5.0°C in particular for scenario A2, the highest values in the Northern border regions of

[7] *Variabilidad Climática y Cambio Climático en Honduras*-Francisco J. Argeña-
[8] Second national communication to the United Nations Framework Convention on Climate Change

Nueva Segovia, Bosawas and RAAN. According to the model, the warmest region is the Pacific region. Models coincide in that the highest average temperature values are expected during the rainy season.

In the case of precipitation, projections are more divergent among the models. One model shows the potential increase of climatic variability with periods in which precipitation increases from 40% to 60%. However, towards the end of the century, precipitation will mostly decrease, which is more significant for the options produced by other models, with 50-60% reductions for the 2071-2099 period.

According to the results of the models, precipitation will increase from 0% to 50% west of 85° meridian, as opposed to a reduction of rains in the Atlantic region, especially in the dry season. This bipolar pattern becomes evident in the rainy and yearly periods; however, in periods of little rainfall, rain values will probably increase 10% or decrease 10-30%.

Vulnerability in Nicaragua

The Pacific region is the most vulnerable region in terms of drinking water problems, as to its quality as well as quantity, due to a convergence of several factors: high population growth, high population density, low rainfalls. The Atlantic region's vulnerability lies in the high number of persons without access to drinking water services and with low human development indexes, which, consequently results in the population's low capacity of adaptation.

The majority of forests important for the drinking water sector are located in an area of high vulnerability and high population density in the Nicaraguan Pacific region.

The national soils are the most important forests for the generation of ecosystem-services for the drinking water sector.

A vulnerability assessment was performed by the Socio-Environmental and Forestry Development Plan (POSAF[9], Spanish acronym).

POSAF was aimed to improve the productive use of natural resources, mainly by small and medium farmers, through the promotion of sustainable productive systems.
One of its objectives was the implementation of its Poverty Reduction Strategy in rural areas and the response to reconstruction priorities after Hurricane Mitch in 1998. The conceptual basis of the Program was aimed to disseminate new sustainable farming practices, in order to ensure higher incomes and profitability in the long-term, to reduce

[9] POSAF: Socio-Environmental and Forestry Development Plan.

population's vulnerability towards extreme natural phenomena and to improve the living conditions of the most vulnerable rural communities.

The Program included environmental education, technical assistance and training for the population to increase knowledge levels and improve technology adoption.
The Program component Management of Natural Resources introduced forestry and agroforestry systems on private farms through the execution of 88 projects aimed to establish 87,951 hectares of economically profitable and environmentally sustainable agroforestry and forestry systems. 14,349 rural families in homogeneous groups of about 900 communities benefited, and forest coverage increased 30% in 9 water sub-basins in seven departments and 25 municipalities.

Adaptation and mitigation measures implemented by POSAF included:

- Prevention structures for water harvesting.
- Improved Firewood stoves
- Hydraulic works to prevent disasters in vulnerable municipalities
- Environmental Education: key in the process of adopting clean technologies

Costa Rica[10]

Costa Rica's territory is located within the tropical region and it typically has a wide variety of climates, giving rise to 12 different ecological or bio-climate sub-regions.
Overall, climate is tropical humid, with abundant rainfall on the Caribbean shoreline and low lands. Due to its geographical, atmospheric and oceanic factors, the country has been divided into seven big climatic regions: North Pacific, Central Pacific, South Pacific, Central Region, Northern Region, North Caribbean Region and South Caribbean Region. Overall, two climate regimes are observed, one from the Pacific, the other from the Caribbean. The Pacific regime typically has a dry season, from December to March, with April being the transition month and March, the warmest and driest of them all. The rainy season begins in May and ends in October, with November as the transition month. Between July and August, rainfall decreases ("Indian summer"), and the trade winds become more intense. The months with the most rain are September and October due to the influence of the cyclone systems, the Monsoons and the Inter-Tropical Convergence Zone (ITCZ).

The Caribbean regime does not feature a defined dry season. In the coastal areas, two relatively dry periods are observed. The first occurring between February and March, and the second, between September and October. Two rainy periods alternate with the

[10]Costa Rica. Ministry of Environment and Energy. National Meteorological Institute. Third national communication to the United Nations Framework Convention on Climate Change /MINAE IMN.

dry periods. The first occurs between November to January, being the period with maximum rainfall, and the second, occurring between May and August. The month registering the most rain is December, influenced by the effects of the cold fronts coming from the Northern Hemisphere (IMN, 2008).

According to studies by the National Meteorological Institute (IMN), the most frequent and extreme weather events include: tropical depressions, tropical storms, hurricanes, tropical waves, low-pressure systems, troughs, and cold fronts. Any of these phenomena of intense nature may cause flooding.

Costa Rica's climate variability is related to the ENOS phenomenon, El Niño-Southern Oscillation. Normally, the evidence of El Niño is clearer than the signs of La Niña. During El Niño, the entire Pacific slope and the Central Region are more likely to sustain dry to extreme dry conditions, whereas in the Caribbean, extreme rain scenarios are more likely. During La Niña, extreme rain scenarios are more likely to occur in the Pacific slope, the Central and the Northern regions, whereas the Caribbean features most likely deficit scenarios. (INM, 2008).

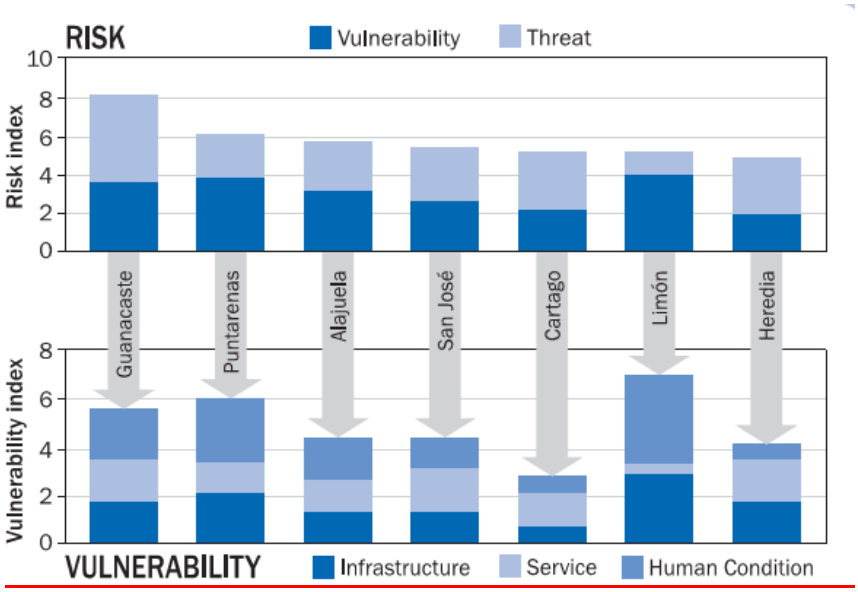
Vulnerability in Costa Rica[11]

As regards water availability, Costa Rica's water system risk was analyzed in order to assess the impact of extreme weather events related to global warming.

The case of extreme dry scenarios is shown in the Figure below. The provinces of Guanacaste and Puntarenas would be at higher risk, while Heredia would be at a lower risk because of its low vulnerability.

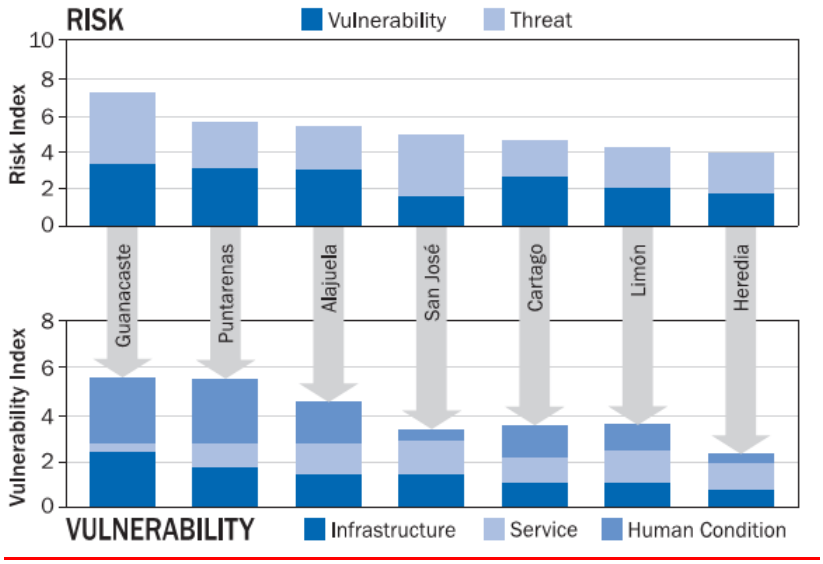
Figure No. 6: Vulnerability to extreme dry events

[11] Costa Rica. Ministry of Environment and Energy. National Meteorological Institute. Third national communication to the United Nations Framework Convention on Climate Change /MINAE IMN.



In the case of extremely rainy scenarios, at the province level, Limón and Puntarenas have a higher risk, while Cartago would be the least vulnerable.

Figure No. 7 Vulnerability to rainy extreme events



The risk of extreme rainy events is closely related to the vulnerability of the provinces, increased vulnerability means increased risk and vice versa.

Food security is analyzed mainly from agro-climatic perspective, focusing on the production of basic grains (corn, rice and beans) and without reference to nutritional component as proposed by Food Security policy (MOH, 2011). Therefore, it does not focus on the population group - which is the breeding ground for food insecurity and malnutrition - but on the agricultural and climatic situation of the production of those foods considered staples in the traditional diet of Costa Rica.

Current climate threat is based on climate variability mainly referred to the two phases of ENSO (El Niño and La Niña). Records held about the effect of ENSO on the climate of the country are averaged into a coherent scenario with future climate projections. Thus, El Niño and La Niña have proven an exceptional chance to implement plans acting like pilot experiences.

The rationale is that if the agricultural sector has achieved adaptation to current climate variability, it means that they are taking the first steps to organize adaptation to future climate change, which in some areas of the country could be translated into the constant presence of an ENSO condition.

During El Niño there is a high probability that weather conditions tend to dry scenarios, mostly in the Pacific slope and the Central region, while in the Caribbean there will be a tendency to rain. During these types of extreme events, rice and corn production decrease while bean production increases when, compared to historical averages, the Caribbean region reported losses. More than a dozen cities are at high risk of being harmed by the impact of drought in relation to agricultural and economic loss.

During the years in which La Niña is present there is a high probability that rainy scenarios are generated mainly in the North Pacific of the country, while conditions in the Caribbean may be drier. During these events, the low production of rice and corn tend to increase in all regions except in the Caribbean where it diminishes.

In the case of bean production, it tends to decrease, with the exception of the Northern Region. The towns which are more affected are the bean producing towns, located mainly in the Pacific coast and north of the country.

With regard to energy security, increases in temperature caused by climate change affect both consumption and production of electricity.

Nine rivers with possible use for hydropower generation were analyzed according to the scenarios of future climate change: Reventazón, Pacuare, Parrita, Naranjo, Térraba, Savegre, San Carlos, Sixaola and Matina.

In all rivers, the susceptibility to erosion, landslides and avalanches was assessed, which had increased because of increased rainfall due to climate change.

The Reventazón, Pacuare, Parrita, San Carlos, Sixaola and Matina rivers are unsafe due to erosion and landslides, while the Terraba, Savegre and Naranjo rivers will be less affected by these events. It is essential to establish a land use plan for rivers, with particular emphasis in its upper and middle sections in order to prioritize the restoration of forests in areas suitable for forestry, the protection of existing forest areas and the stabilization of the various sites where active landslides occur.

In the case of wind energy it was found that when El Niño phenomenon was present, there was an increase in wind generation in the months of January, July, August, September and October.

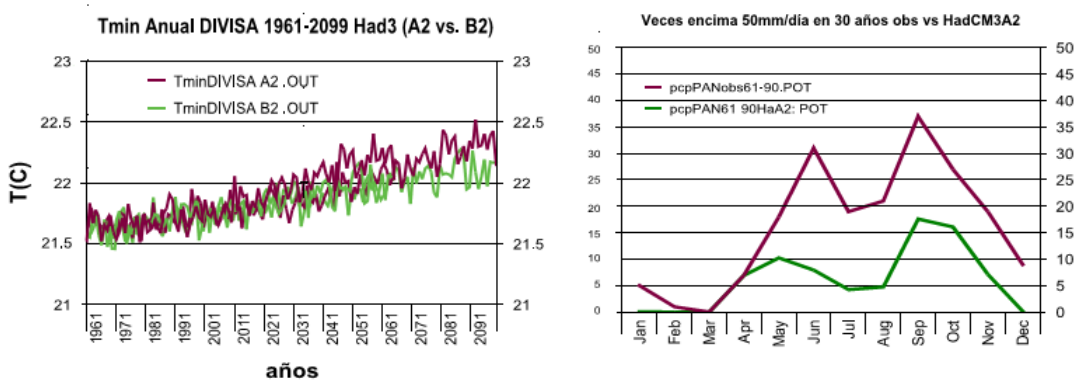
On an annual basis when El Niño was present, 6% more power generation was obtained. Therefore, one measure to consider is the proper design of dams and sediment removal systems, since otherwise the availability of hydroelectric plants may be affected due to increased runoff, which could reduce the reliability of the generation system.

Panama[12]

Climate change scenarios have been generated focusing on the provinces of Veraguas, Coclé and Herrera, in the central region of the country. Based on modeling we can infer that climate in the regions studied has undergone changes with respect to temperature and rainfall regimes. In the future, temperature is expected to be 1°C to 4°C warmer, with greater tendency toward 2°C to 3°C. Precipitation will also present changes ranging from a 10% increase to a 10% decrease.

Figure No. 8: Temperature and rainfall scenarios for Panama

[12] ANAM (National Environment Authority) (2011), Panama. Second national communication to the United Nations Framework Convention on Climate Change, Panama, Panama.



Fuente: Autoridad Nacional del Ambiente (ANAM), *Informe final integrado de vulnerabilidad actual: Proyecto Fomento de las Capacidades para la Etapa II de Adaptación al Cambio Climático en Centroamérica, México y Cuba*, Panamá 2006.

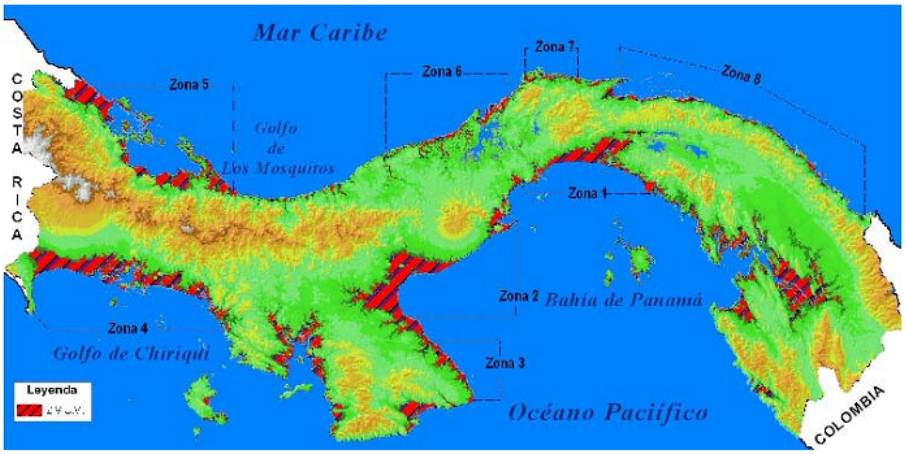
The PCN [13] identified that the occurrence of climate phenomena such as El Niño and La Niña pose a threat for national agriculture, particularly, in provinces of the central region, including Coclé and Los Santos, where 85% of the national rice production takes place. These provinces are deemed to be sensitive and vulnerable as they are exposed to greater variations in the face of intense rainfall, dry spells and floods. In the 2006-2007 period, a long-lasting drought affected 4,900 rice-growing hectares, in the provinces of Herrera, Los Santos, Coclé and Panamá, causing millions in losses.

The PCN produced a physical map of the Panama Republic which allowed to identify eight big priority areas on account of their vulnerability. The elevation reference value from the sea level to identify coastal vulnerability is of 20 m above sea level or less. This elevation value indicates high vulnerability in projections of sea level variations. Under an emission scenario of high climate sensitivity, sea level is estimated to rise at about 0.95 cm/year. At this rate and considering a rise subject to a linear trend, sea level is estimated to rise by about 9.5 cm in 2010, by 40.4 cm in 2050, and by 93.5 cm in 2100. Uncertainty levels throw rise variations from 0.15 cm/year to 0.95 cm/year, in minimum emission scenarios with low climate sensitivity and in maximum emission scenarios with high climate sensitivity, respectively.

Overall, adult population of towns located in coastal sites studied perceive a threat on account of an increasing sea transgression onto the coast. This condition, together with intense rain events and high tides, cause more flooding (ANAM 2007b).

[13] First National Communication.

PANAMÁ: ZONAS DE VULNERABILIDAD COSTERA DEFINIDAS PRINCIPALMENTE POR LA ELEVACIÓN DEL SUELO RESPECTO DEL NIVEL DEL MAR



Fuente: Autoridad Nacional del Ambiente (ANAM), *Primera Comunicación Nacional ante la Convención Marco de las Naciones Unidas sobre el Cambio Climático (CMNUCC)*, Panamá, 2000.

Based on the above, and to enhance Panama's resilience and incorporate adaptation to climate change in the integrated management of natural resources, the strategic lines of action to be followed in the face of climate change entail the following, among other things:

- Strengthen the individual and institutional capacities on the environment issue and their relation with climate change, adaptation and mitigation. Mainly, for all decision-makers at all levels of the governmental structure.
- Strengthen institution-building capacity, enhance public and private interest and political goodwill. Across national and local government levels, cope with the problem in a coordinated manner together with local associations, unions, universities and private initiatives, among others, by fixing efficient communication channels and re-defining roles and responsibilities regarding the environment.
- Overcome the lack of coordination among institutions by the actors involved, including the national governmental levels, for better executing and monitoring sustainable development oriented national policy and regulatory and strategic instruments.
- Provide more monitoring and support to the efforts and initiatives previously established to attain sustainable actions oriented towards sustainable development.
- Exert greater leadership, communication and coordination efforts with the civil society and other actors such as cooperation agencies and nongovernmental organizations, with the purpose of organizing actions and initiatives in an integrated and inclusive manner to efficiently address the problem.
- Strengthen the different national management tools such as the National Environment Strategy (ENA), through national plans involving climate change

and sustainable management of the environment, executed in a coordinated manner to ensure investment and resources for its sustainability.

- Promote programs with an integrated agenda, which is consistent with the national development policy, with the purpose of better positioning Panama in the international community, promoting sustainable management, conservation and use of natural resources, goods and services.
- Promote the development of technological and scientific research at national level, providing innovating supplies for their incorporation.

Lastly, it is worth stressing that the above represents tasks and responsibilities in benefit of the national development and in favor of the environment. Emphasis on the consideration of climate change as a guiding principle must be taken into account in potentially strategic sectors for national growth, given its relevance for the current economy, such as: energy, sustainable agriculture and food security, environmental education, territorial planning and management, maritime resources, sustainable tourism, water resources integrated management, health and transport.

Dominican Republic

The Dominican Republic has the characteristics of a tropical climate, influenced by various geographical factors, such as: trade winds from the North, Northwest and Northeast, and the winds from the Caribbean Sea; in the East, South and Southeast parts of the country, equatorial currents from the North and South, due to their high temperatures and humidity; the temperature of the seas that surround it; the large contrasts between slopes; and the migratory phenomena that affect it during the year.
Also, its relative closeness to North America places it within reach of the cold masses of air that descend in winter on the central parts of the United States which, when reaching the country, determine the occurrence of low temperatures and rain, a phenomenon known as “Northerly”.

This influence of the trade winds course, the complex mountain system, the steep climate variations combines to produce great variations or microclimates, from dry-steppe to warm-humid, the most common being humid-tropical from the grasslands; humid-tropical from the forests; and warm-humid. Also, latitude and the prevalent pressure systems, influenced by the mid-Atlantic system which contains high pressure, make the climate similar to that of other Greater Antilles (Cuba, Jamaica, and Puerto Rico).

Average temperature during the year is 25.5 degrees Centigrade; but the large variations of the mountain system mark the differences, between 28 and 26 degrees Centigrade in the lowest areas, and up to 22 to 18 degrees Centigrade in the higher locations of the country.

Within the distribution of rainfall there are, normally, three rainy seasons: frontal season (November-April), convective season (May-July) and hurricane season (August-October). Spatial distribution, within the regime of rains, is very complex depending on the orography (relief). The average annual rainfall for the entire country is 1,500 mm, with variations that go from 350 mm in the Hoya de Enriquillo up to 2,743 mm a year in the eastern mountain range.

The natural risks that the country encounters are basically linked to extreme climatic events, such as hurricanes, tropical storms, floods, droughts, forest fires, tornadoes and hail.

In vulnerability studies, the possible effects of climate change on the coastal tourist area in the Eastern region; on the Rio Haina basin, which contributes 25% of water to the capital city of Santo Domingo; on health, due to the impact of dengue and malaria; on the city of Santo Domingo and other towns; on biodiversity, if one takes into account the protected areas; on agriculture and food security; and the impacts from the use of the soil and forests within Los Haitises National Park, they are all taken into account. In each one of those studies adaptation measures are required, and those measures demand economic resources in the short term, which the country is not able to contribute, thereby requiring international technical and financial assistance in order to reduce vulnerability and the effects of climate change.

According to the first National Climate Change Strategy[14], three emission scenarios are considered in order to analyze the future climate parameters: one weak IS92c, one moderate IS92a and one strong IS92f, to cover a wide range of uncertainties relating to emissions of greenhouse gases into the atmosphere and by combining these three scenarios with three models of general circulation (MCG) collecting the conditions of extreme and average precipitation with high temperature values.

Several models have shown strong evidence of decreases in precipitation. Precipitation is expected to decrease to 1,137 mm by 2030 (11% decrease from 2010), to 976 mm (23% decrease from 2010) and to 543 mm (57% decrease from 2100).

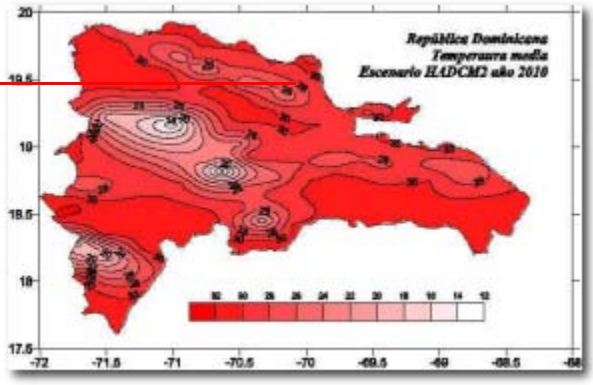
There are no clear trends available for extreme events. The climate scenarios, basin and nationwide, projected a warming of 1°C continuous between now and 2050, and projected a likely decrease in precipitation. Nationally, temperatures could increase up to 4.2°C. End-of-century precipitation trends are less clear, but tend to be negative and extreme events, although they are still difficult to project. Meteorological and climatic

[14] National Adaptation Strategy and Action Plan (NASAP) to Climate Change in the Agricultural sector, Dominican Republic 2014-2020

data continue to be irregular and difficult to access, which makes the information and projections of the climate, as well as risk studies, less reliable.

Figure No. 9: Predicted changes in temperature and rainfall in Dominican Republic

Año	2010
Temperatura °C	26.2
Precipitación mm	1277.0



Temperature is likely to rise to 26.2°C by the year 2010, 26.9°C by 2030, to 27.7°C by 2050 and 29.6°C by 2100.

According to the scenarios, sea level is expected to increase 1.47-13.55 cm in 2010, 3.77-26.73 cm in 2030, 6.53-47.27 cm in 2050 and 12.71-105.67 cm in 2100, depending on the scenarios (from the optimistic to the pessimistic).

The rise of the sea level may have as consequence the intrusion of salt water, either through the estuaries of the rivers during the high tide, or directly affecting groundwater basins, which can impact water quality in aquifers that have hydrological continuity with the sea, affecting the quality of water for human use and agriculture. Source: National hydrogeological study (INDRHI -Aquater, 2000).

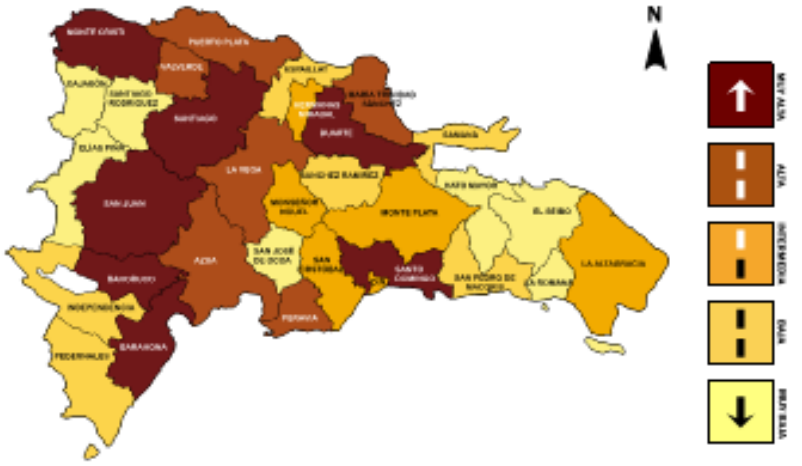
The increase of the sea level has several negative impacts ranging from submersion of the low coasts, increase in coastal erosion with major impact on beaches, saline intrusion and increased risk of flooding, changes in the characteristics of the waves, the storm waves increase, change in the transportation and deposition of sediments and change on coastal and marine ecosystems.

The provinces that present high levels of vulnerability of agriculture to drought are located in the West, South-West and East of the country, with Elías Piña, Independencia, Pedernales and El Seibo provinces being shown by all models as highly vulnerable. Followed by Barahona and Bahoruco.

The report on Investment and Financial Flows for adaptation to climate change, with regard to the water sector in the Dominican Republic, recommended the following adaptation measures : adoption of water resource integrated management as a State policy, under a radical paradigm shift, from the model of supply management on which the baseline scenario rests, towards a model of integrated demand management. In this sense, the stage of adaptation is articulated around three main focuses, namely:

- Focus 1: integrated management of water resources, under the paradigm of multiple-use demand management;
- Focus 2: protection and conservation of the environmental services of forests and aquatic ecosystems (ecosystem approach) and
- Focus 3: reverse the loss of quality of Dominican water bodies, raising the coverage of domestic, industrial and agricultural wastewater treatment.

Figure No. 10 Agriculture and floods in Dominican Republic



d) Agricultural sector and climate change

Agriculture in Central America is especially sensitive to weather- and climate-related factors because of these countries' geographical location and their socioeconomic and technological characteristics. It is the production sector that has sustained the greatest losses as a result of extreme weather events in recent decades. This is particularly serious as the agricultural sector accounts for just 9% of the sub region's GDP, but employs 30% of the working population and produces key inputs for the agro industrial.

Initial estimates based on climate change scenarios suggest that grain production could drop significantly during this century (decreases in yields of up to about 35%, 43% and

50% for maize, beans and rice, respectively, by the end of the century under the A2 scenario and of 17%, 19% and 30% under the B2 scenario relative to the yields of the last decade, assuming the absence of adaptive measures). These potential losses would have a direct impact on producers, most of whom operate as family businesses at subsistence levels, but they would also impact food security, poverty and the degree of dependence on grain imports, which has already been rising over the past three decades (ECLAC, 2013d).

The available evidence for Central America indicates that environmental degradation and the destruction of biodiversity are processes that are already in full sway and that will very probably become more marked as climate change progresses. For example, the potential biodiversity index (PBI) for Central America points to a reduction of approximately 13% during this century as a result of changes in land use (without climate change). Climate change is projected to boost this loss to something between 33% and 58% (respectively, for scenarios B2 and A2) by the end of the century (see map III.1) (ECLAC, 2011b).

Other processes that generate large impacts on the agricultural sector are those related to plagues: epidemic diseases provoked by the pine beetle ("gorgojo") or the coffee rust ("roya"), have already caused irreparable damage to woods and plantations. These plagues are having greater impact with climate change, since they are related to longer drought periods (in the case of pine beetle) and with excessive humidity due to intense rainfall (coffe rust).

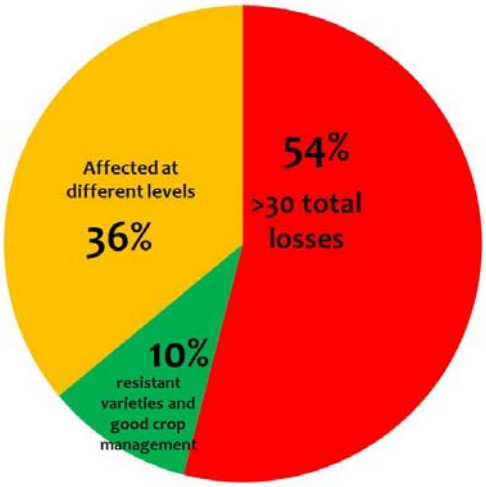
Coffee rust

1990, coffee rust has become endemic in all major coffee-producing countries[15]. In 2012, there was a major increase in coffee rust across ten Latin American and Caribbean countries. The disease became an epidemic and the resulting crop losses pushed coffee prices to an all-time high amid concerns for supply. One of the most affected countries has been Guatemala, where coffee crops were ruined by coffee rust, and a state of emergency was declared in February 2013[16]. The average incidence of rust in El Salvador, until May 2015, reached 50%, and has affected 75% of coffee plantations[17].

[15] Waller, J.M.; Bigger, M.; Hillocks, R.J. (2007). Coffee Pests, Dieases & Their Management. CABI
[16] News, B. B. C. "Guatemala's coffee rust 'emergency' devastates crops". Retrieved 30 August 2016.
[17] La Prensa Gráfica. "El Salvador is the most affected by rust at the regional level". Retrieved 30 August, 2016.

15% of world coffee is produced in the OIRSA[18] Region (México, Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, Panamá and Dominican Republic). Loss estimates of the 2012 epidemic are shown in Figure below.

Figure No.11 Impact of coffee rust in the OIRSA Region, in 2012



Source: www.oirsa.org

Drought makes that coffee plants let fall the fruits when they are still green and the leaves have a faded appearance. In addition, drought prevents the coffee plants absorb fertilizer and agricultural chemicals (such as fungicides against rust) and they have less effect.

PROMECAFE warned that if no adaptation measures to climate change are taken, 80% of coffee plantations in Central America are compromised.

In late June, the Indigenous and Peasant Coordination Association for Community Agroforestry in Central America said that climate change will force in a few years, to sow good quality coffee about 300 meters higher than now.

Pine beetle

[18] Regional International Agency for Agricultural Health: http://www.oirsa.org/

Central American pine forests are threatened periodically by a variety of natural and human-induced depredations: hurricanes, wildfires, shifting agriculture, and forest pest outbreaks.

In 2000 and 2001, a region-wide outbreak of native pine bark beetles of the genus *Dendroctonus* occurred in Central America, with major impacts in Belize, Nicaragua, Honduras, and Guatemala.

In Honduras from 1962-1965, *D. frontalis* destroyed more than 2 million ha. of mature pine forests. Due to the magnitude of the outbreak, coupled with the lack of roads, trained personnel, and financing, little direct control was carried out. The outbreak eventually collapsed of natural causes, but not before devastating nearly two-thirds of this country's old-growth pine forests.

Between 1999 and 2002, more than 75,000 ha were destroyed by pine bark beetle, with major losses in Belize, Nicaragua, Honduras and Guatemala[19].

Impacts of pine bark beetle in Honduras
Source: www.lanoticia.hn

Cold tolerance for these insects is greatest during winter months, and lowest during periods of glycerol synthesis an catabolism in autumn and spring respectively, suggesting a direct correlation between increasing minimum temperatures associated with climate change and a reduction in cold-induces beetle mortality.

e) There are also indirect effects of climate change on dark beetles population associated with host trees vigor and host abundance. ***Agricultural sector and food production overview***

[19] Billings, RF (2002). Pine Bark Beetle Outbreaks in Central America: Impact and Management.

The agricultural sector contribution to the GDP of countries within the region, measured by the national accounts, represents about 20% in Guatemala and Nicaragua, between 10% and 15% in Honduras and El Salvador and less than 10% of GDP in Costa Rica and Panama while for the Dominican Republic it represents 8.9% of total GDP.

Family agriculture produces about 50% of the total agricultural production of the region's countries and attains more than 56% in countries such as Honduras and Panama. In terms of food, Family Agriculture produces over 70% of Central American food. (FAO 2012).

The primary agricultural sector is closely linked to other sectors such as agribusiness and food production through commercial agricultural production chains in sectors such as coffee, bananas, sugar, oils, flours, concentrates, fruit, meat, dairy, fisheries and aquaculture, among others. If the agricultural sector is considered as a whole, its contribution to the GDP is much more significant, as an example, in countries such as Guatemala, Honduras and Nicaragua the sector as a whole contributes 30% of the GDP.

The agricultural sector is also important in terms of its contribution to intra- and extra-regional trade. Since 1990s, intra-regional trade has significantly grown, with the agricultural sector having an outstanding share.

Increased yields from family agriculture as a result of agricultural sectoral policies (mainly innovation and technology) would allow to increase the availability of food in a region with a domestic supply highly dependent on importing. This, in turn, would reduce the influence of external factors (such as the increase in prices of agricultural supplies, price fluctuation, commercial negotiations, climate change, among others) in the region's food availability.

f) Land use

Agriculture, livestock and forestry activity still are the foundations of the economy in Central American countries. However, their use is incorrect and deficient. 51.2% of the surface area of Central America is over-used and 21.7% is under-used. As a result, only 27% of the surface area is correctly used. The overuse consists in the logging of woodlands in very steep slopes with high precipitation and fragile soils in the face of erosion processes, which cause serious environmental problems mainly impacting the "campesina" population of little economic resources. The tendency in Latin America of expanding the lands devoted to agriculture and livestock and reducing tree coverage occurs in Central America as well. However, Central America differs from the entire region in that whereas the remaining Latin American countries have managed to

increase their agricultural production through more intensive land use, agriculture in Central America has grown based on the expansion of lands for pastures and crops.

	Country	2013
Percentage of agricultural lands	*(percentage of land surface area)*	
Percentage of the territory devoted to agricultural activities.	Costa Rica	35.6
	El Salvador	76.4
	Guatemala	34.7
	Honduras	28.9
	Nicaragua	42.1
	Panama	30.4
	Dominican Republic	48.7

Source:http://datos.bancomundial.org/indicador/AG.LND.AGRI.ZS?name_desc=false. World Bank

Agricultural Production

The agricultural activity in Central America has been the most important source of wealth ever. Central America has fantastic soil and favorable climate for growing tropical products.

Agricultural practices can be classified into two types:

- One devoted to food production for the population (self-consumption). Chief among them there is corn, rice, cassava, beans, and sweet potatoes.
- And then there is plantation agriculture devoted to exports with high yields, highly modernized in terms of technology and huge capital investments. Chief among them there are sugar cane, plantains, coffee and tobacco. To a less extent, cocoa and pineapple.

Foreign capital has boosted tropical plantation agriculture with the following characteristics:

- Owners of the plantations, machinery, means of transport, warehouses, etc. are foreigners backed by their countries of origin.
- Normally, these are monocultures which also constitute monopolies, thus harming the country's economies.
- The technical and administrative staff is from overseas, and only workforce is local.
- In some areas, tropical agriculture is not very advanced, since the use of machinery is very restricted, and frequently only machetes or hoes are used.
- Products intended for exporting are subject to prices of the international market. Where there is any excess in the supply, prices are reduced in producing countries and cause economic crises.
- The domestic market is frail, and frequently these countries tend to import food given that the lands mostly devoted to plantations.

- The main crops of the area include: coffee, cocoa, plantains, sugar cane and tobacco.

Coffee: main crop grow in El Salvador, Guatemala, Costa Rica, Honduras and Nicaragua. In this case, the production techniques have been perfected. Furthermore, volcanoes enrich the soil with ashes favoring this crop.

Cocoa: This is the second most important product in the Dominican Republic and Costa Rica.

Plantains: Guatemala once was among the biggest producers of bananas, but upon nationalization of North American companies controlling this monoculture, the government boosted other products, mainly cotton and rubber. Currently, the leading countries in this area are: Panama and Dominican Republic and their main market is the United States.

Sugar cane: This is obtained in Dominican Republic. It is important as Central America and the Caribbean occupy an important place in worldwide production (34%).

Tobacco: produced in Dominican Republic. Trade is not that important as in the previous cases.

Livestock

Livestock has not been massively developed in this region due to shortage of pastures, and no technical advances have been applied to solve problems of tropical farming.

Fishing

Fishing is not quite a relevant commercial activity in Central America. It is more related to subsistence and sports, with the exception of Panama. This is due to the relative shortage of species in tropical waters for plankton, main feed for fish, is scarce.

Forestry Activity

In Central America this activity is not economically relevant given that most of its forests have been transformed into plantations, and those still remaining contain numerous species entangled, which makes it difficult to exploit. In Guatemala, rubber is thoroughly exploited.

Organic Production[20]

Since the 1980s, food organic production has developed in the region. This market with demanding consumers and increasingly larger demand worldwide provides a huge opportunity for small producers who traditionally do not use chemicals.

Most of the certified and transitioning farms in the Central American region have less than average 5 hectares. That is to say, organic production in Central America mostly comprises small producers, integrated to the local and international market.

The following table shows the organic products which each country of the region markets domestically and internationally.

Table No. 7. Main organic products in Central America, per target market.

Product	Guatemala		Honduras		El Salvador		Nicaragua		Costa Rica		Panama	
	Domestic	Internat	Domestic	Internat	Domestic	Internat	Domestic	Internat	Domestic	Internat	Domestic	Internat.
Coffee	X	X		X	X	X	X		X	X	X	
Bananas		X		X			X		X	X	X	
Cocoa		X		X	X				X	X		X
Sesame		X		X		X	X					
Pineapple	X		X	X	X		X		X	X	X	
Cashew	X					X	X	X				
Cotton								X				
Cardamom		X										
Honey	X	X				X	X	X	X		X	
Añil					X							
Sugar	X	X	X		X	X	X		X	X	X	
Blackberry	X		X		X				X	X		
Medicinal plants	X	X			X		X	X	X		X	
Oranges	X		X		X		X		X	X	X	
Orchard products	X	X	X		X	X	X		X		X	
Ginger	X			X			X		X	X		
Pepper		X		X			X		X			
Other fruits	X			X	X		X		X	X	X	
Cattle							X					

[20] FAO.org

Agricultural production by country

i. ***Guatemala***

In Guatemala, the agricultural activity is the most important source of income. Guatemal has good soil quality and favorable climate for growing tropical products. Agriculture can be devoted to food production for the domestic market: corn, rice, cassava, beans and sweet potatoes. And then there is plantation agriculture devoted to exports with high rates of return, which are highly modernized in terms of technology and huge capital investments: sugar cane, plantains and coffee.

Foreign capital has boosted tropical plantation agriculture. The main crops of the area include: coffee, cocoa, plantains, sugar cane and tobacco. Meanwhile, Guatemala is the first worldwide exporter of cardamom.

ii. ***El Salvador***

Agrarian production is still highly marked by a very strong distinction between products for trading and products for subsistence. Under the *latifundio* [large production estates] regime, products are grown for exporting, mainly coffee and cotton, as well as corn. *Minifundios*, of reduced sized and insufficient productivity, families of *campesinos* grow corn, rice, wheat and green beans, for domestic consumption.

iii. ***Honduras***

The economy of Honduras is mainly based on agriculture, with products for export such as coffee, banana, African palm tree, sugar cane, etc. Bananas and coffee are the main export products, whereas Cuban cigars are not so renowned internationally in spite of being of very good quality. Also, industry, livestock production, trade, mining and tourism constitute a big boost to the country's economy.

To a lesser extent and depending on the specific department, livestock production can be found with cattle, horse, pork, goat and poultry breeding, growing of potatoes, cabbage, *maicillo*, corn, cassava or *yuca*, *camote* or sweet potato, sorghum, rice, *pataste* or pear squash, sesame and a wide variety of fruits, fishing and even shrimps.

iv. Costa Rica

Costa Rica is still basically an agricultural country. 40% of the national territory is used in agriculture mainly coffee and bananas. Other relevant products are: organic vegetables, fruits, cocoa, sugar cane, corn, rice, sorghum, grain, potatoes, pineapple, tobacco, cotton, beans, broad beans, beef and wood for construction. Banana

plantations are found mostly in the hands of independent landowners and a large portion of the coffee growing farms are not of large extension, which has given rise to the existence of a broad middle-class. Cattle is the main livestock sector, followed by pork and poultry.

Small and medium sized companies are devoted to the drying of coffee, the sawing of wood and the production of cheese, beer and liquors.

Also, tourist ports and complexes of the Pacific are the gateway to some of the best deep fishing places worldwide, whereas the channels and rivers of the North Atlantic coastline are famous for world-class fishing of "snoop" and "tarpon".

v. Panama

Even though international trade is the country's main economic activity, the agricultural sector is highly relevant for Panama's social and economic development. So far, agriculture has not been a well organized activity, except for some products for export such as bananas, sugar, coffee, and cocoa. The largest portion of the agricultural activity for domestic consumption is carried out by small and medium sized producers whose economy is of the subsistence type, unlike plantation agriculture, where production goes to the domestic and export markets. The agricultural activity is the production platform of the country's regions that are not integrated to the service-based economy which prevails in Panama, constituting the main source of jobs and income for rural population, and which represents 30% of the economically active population. Out of the above population, 20% works in the livestock sector due to the extensive farming system prevailing in this activity. According to the 1980 census, there are approximately 153,194 agricultural farms with a total surface area of 2,258,557 ha planted.

Panama's main agricultural activity is the production of bananas, which are grown nation-wide in suitable areas. This production is significant due to its exporting. Sugar production, though depressed on account of international low prices, remains one of the most important products for export. It is produced mainly in the central provinces. Coffee and cocoa are also export-oriented products, mainly produced in the central cordillera area and in areas with the greatest relative humidity, respectively. Cereal and grain production for domestic consumption is deficient. That is why the importing of rice, corn and bean is required. The main rice producing provinces are Chiriquí, Coclé, Veraguas and Herrera. Bejuco is mainly produced in the province of Chiriquí and gandú, in the provinces of Veraguas and Panama. Other products such as bell peppers, cabbages, lettuce, tomatoes, carrots, beetroots, cucumbers and pear squashes are produced at very small scale, mainly in the provinces of Chiriquí, Herrera and Los Santos. Chief among the permanent crops there are pineapples, oranges, passion

fruits, coffee, cocoa, papayas, avocados, lemons, grapefruit, *guayaba*, cashews, bananas and plantains. Most of them are distributed across all production areas.

Livestock production is extensive and rudimentary, with little technology, focused on the production of livestock cattle for domestic consumption (99%) and export, covering 74% of the lands available for such activity. Pork production is carried out in a semi-intensive and extensive in almost all regions of the country, solely devoted to domestic consumption. Poultry is conducted by three large companies, which generate almost 70% of the country's total production. The rest is in the hands of small producers distributing in almost all regions. Chicken meat production is solely used for national consumption.

Panama is a country with great fishing potential including a wide variety of species, including sea fish for industrial use (anchoveta, herring) and fresh consumption, shrimps, lobsters, bivalve mollusks, octopuses, squids and turtles. The development of fishing has been playing an important role in the country's socio economy, although it occupies a secondary position within the context, given that the national economy is essentially service-oriented.

vi. Dominican Republic

In the Dominican Republic, the agricultural sector encompasses agriculture, farming, silvicultural and fishing sub-sectors, and its contribution to the national production is based on the production of cereals, traditional export products (cane, tobacco, coffee, cocoa), oil-bearing crops, textile (cotton, pita fiber), legumes, tubers, fruits, orchard vegetables, and miscellaneous products.

The main agricultural products are: sugar cane, coffee, cocoa, tobacco, rice, products from the orchard, beans, meat and eggs.

At the beginning of 1980s, work began in organic production in the Dominican Republic. By mid-1990s production was expanding, and today, it is an important component of the agricultural sector. Bananas, cocoa, and coffee are mainly traded.

~~f)~~g) Relevance of MSMEs in agricultural sector.

As mentioned before, in Central America and the Dominican Republic, there are almost 2.1 million agricultural small production units or MSMEs of 5 hectares or less, many of them considered vulnerable in the face of climate change, pests and diseases, and market price instability.

Indeed, the production area is characterized by low productivity and little diversification, losses on account of droughts and floods, absence of product quality controls and standardization, high transportation and logistics costs, low investment in resource and development: low technological innovation and adaptation, not enough qualified staff and limited managerial capacity; constraints in the work market: high formalization costs, social and cultural problems, informality, corruption, lack of trust, among others.

In Latin America, micro-sized enterprises represent 85% of the facilities, SMEs, 9%, and large-sized enterprises, roughly 6%.

MSMEs push the economic growth in the Region. Some relevant data about MSMEs in the Region are highlighted below[21]:

- There are about half a million SMEs (SMEs with 5 to 200 employees).
- Companies are concentrated in trade and services (activities easier entry and exit and low productivity).
- Microenterprise is the largest group of companies in the region (90% or more).
- They are generators of growth for all economies.
- They are important generators of jobs and local development in terms of wealth creation and entrepreneurial culture as well as the implementation of new technologies and innovations.
- The SMEs form the basis for moving from a model of comparative advantage towards a model of competitive advantage.

In Guatemala, agriculture and trade prevail within the productive structure of the country and in those sectors MSMEs occupy 54% of the total, and most of the activity in microenterprises is related agriculture, with 38.7% of workers. In the case of small business agriculture related activities reach 16.5%. Finally, agriculture midsize businesses become relevant, occupying 24.6% of workers.

In El Salvador, the distribution of MSMEs by economic sector shows that 86.98% are engaged in trade and services, followed by 11.54% dedicated industry.

The Chamber of Commerce and Industry of Cortes (CCIC) of Honduras, affirms that about 1,800 MSMEs are affiliates to the organization. They are located throughout the north of the country, especially in San Pedro Sula. They are mainly engaged in the services and trade sector.

[21] Based on “Assessment of SMEs in Central America”. Revista SUMMA, July 2015.

During the last period, Nicaraguan MSMEs report an increased growth in their financial balance which according to AMCHAM and COSEP is attributed to the dynamism this sector has shown due to following factors: reduced time of starting a business, macroeconomic stability, high level of public safety and government-business consultation private-unions.

In the case of Costa Rican MSMEs, they have had to address internal factors arising from the nature of the course of business and external factors that arise from the effects of globalization on the economy and business competition.

In Panama, records show that there are currently 49,979 micro, 6,751 small and 1,558 medium-sized enterprises. The majority of these MSMEs economic activities are trade and services, who represents 40% and 25% respectively. Agriculture sector is the third economic activity who shows more potential for small and medium enterprises. This MSMEs creates jobs for more than 60% of the economically active population.

In the Dominican Republic, there are 1.4 million MSMEs established who represents 99% of the economic structure of the country. These MSMEs contribute with the 38.6% of the national income, and creates more than 2 million jobs who represents the 54.4% of the economically active population. In the country there are approximately 224,173 agricultural MSMES~~..~~.

h) General tendencies in the financial sector in the promotion of MSMEs

i. Evolution of the competency in the financial sector assisting the MSMEs

The MSME sector in Central America is characterized by a common purpose, which is to substantially boost the region's economic growth. The MSME sector represents over 90% of the business structure of the region and it is estimated to contribute between 20% and 50% of the GDP.

The importance of this sector is worth stressing where 94% of the business sector in Costa Rica comprises MSMEs; in Guatemala they generate over 4,500,000 of jobs, whereas in Honduras, these types of businesses total more than 127,000.

As a result, the Financial Sector has shown a significant interest in this market portion. Financial Institutions have increased their portfolio of financial products and services available for the MSMEs, with the purpose of enabling access to credit and accelerating financial inclusion.

To promote an appropriate development of MSMEs, Central American countries are currently developing incentive strategies for this sector. In the case of Guatemala, the Deputy Minister of Development of MSMEs has programs focusing on competitiveness, entrepreneurship, productivity, as well as support to companies through access to loans, training and technical assistance, among others. Countries such as El Salvador and Honduras have shown the efforts made to improve the business climate for MSMEs fostering the increase of exports, associative work, and use of technologies.

All efforts to improve legal frameworks of the Central American countries, and to strengthen the endeavors, have led to face the lack of timely financing by means of the evolution of the Financial Sector, which has designed appropriate products to the needs for MSMEs using the technology as an ally for the search for commercial opportunities and financial management and fostering access to credit.

ii. Changes in the political framework, reforms in the field of bank supervision and legalization

Guatemala

As part of the Plan of Alliance for Prosperity in the Northern Triangle (Guatemala, El Salvador and Honduras), Guatemala, through the financing of loans, assisted 1,024 businessmen of MSMEs in the trading and industry, service, craftsmanship and agro-industry sectors. Guatemala has led the promotion in the legislative agenda for improved regulation and access to credit of MSMEs. As a result, in April, 2016, through executive order 25-2016, the Law on Microfinances was enacted, the purpose of which is to regulate the formation, authorization, merge, operation, services, suspension and liquidation of savings and loan microfinance companies and the investment and loan microfinances companies. This new regulation will help consolidate institutions and make them stronger. Presently, the legislative agenda is being pushed forward whereby four bills are to be discussed (law of stock exchange, bankruptcy, securities and law of savings and loans for cooperatives).

Honduras

In Honduras, the Presidential Program "Banca Solidaria" was created seeking to allocate 50,000 credits during 2015. This disposal of resources through the public banks boosted the economy of the MSMEs enabling access to solidary credit with technical assistance. During 2015, more than 4,000 micro businessmen and entrepreneurs received support through this initiative.

El Salvador

In turn, El Salvador has enacted the Law on Financial Inclusion creating the first Mutual Guarantee Fund Administration Company, thus promoting the bankarization of the

population, together with the approval by the Assembly of a loan portfolio devoted to MSMEs for a sum of USD 100 million ad regulatory changes to foster the supply of credits to MSMEs, chief among them being the special program of BANDESAL known as "Banca Mujer". Through the latter, USD 4 million are expected to be allocated for businesses led by women to be developed in the last quarter of 2015.

Nicaragua

Bank "Produzcamos" is a public institution in Nicaragua which provides support to micro, small and medium businessmen, either individually or collectively, thus promoting entrepreneur development of MSMEs. Also, the Ministry of Promotion, Industry and Trade carries out the Program of Nicaraguan MSMEs Competitiveness Strengthening, by promoting products for export. In year 2015, the Nicaraguan Council of the Micro, Small and Medium Enterprise (CONIMIPYME) promoted the reform of Law No. 645 (Law of promotion and development of MSMEs) so as to allow equating the parameters of MSME classification and speed up the procedures to set up such businesses.

Costa Rica

In April 2015, the Ministry of Economy, Industry and Trade introduces the report "State of the art for MSMEs in Costa Rica". The report informed that there are 31,657 SMEs in Costa Rica, which represents 3% less as regards 2013. This information has given rise to the need to understand and characterize the MSMEs through a system of indicators generating information from time to time for the Government to undertake policies promoting the development by micro-enterprises. As a result of this situation, the Ministry of Economy, Industry and Trade of Costa Rica, in order to address the development of policies, programs and projects of support to the SME sector, articulated a public-private institutional network of over 50 institutions belonging to the governmental, academic, financial, guild sectors, among others to assist businessmen of MSMEs. Five added regional offices were created across the country to provide commercial support to micro-enterprises, known as CREAPYMES.

Dominican Republic

The Ministry of Industry and Trade (MIC), through its Deputy Minister of Promotion to the MSMEs and the Dominican Confederation of the Small and Medium Sized Enterprise (CODOPYME) signed a collaboration agreement in February 2016 to train and strengthen the levels of financial and accounting management of 240 firms of the provinces of Santo Domingo and San Cristobal, through the National Program of Financial Education for MSMEs.

During the first stage of execution of this initiative, intended to be replicated nation-wide, the beneficiary firms could learn to organize their finances in a manual, systematized manner. In addition, their businesses went into the banking system with the aid of commercial financial products intended to this sector.

The impact that this training and financial relation will have in these MSMEs consists in strengthening the use to which production loans are devoted, as well as the management and the growth that allows this approach of financing in the companies.

i) Gender considerations vis-à-vis MSMEs in the agricultural sector

According to FMICA[22], impacts from climate change will have significantly different effects on Central American women – and in some cases even more rigorous – given the fact that because of their high levels of discrimination-based vulnerability, women are among the most impoverished and uninformed sectors of the population.

Gender inequalities intersect with the risks and vulnerabilities associated with climate change. Their historical disadvantages, added to limited rights, limited access to resources, and limited participation in decision-making venues, makes women highly vulnerable to climate change. Climate change is likely to increase the existing gender disadvantage patterns (Human Development Report, UNDP, 2007 in Aguilar, L., 2009).

With regards to gender considerations vis-à-vis MSMEs in the agricultural sector, no statistics have been found. Therefore, in order to provide an approximation of this aspect, an analysis of the participation of women and men in the CAMBio project has been performed and included in the next section.

III. CABEI's financial intermediation scheme

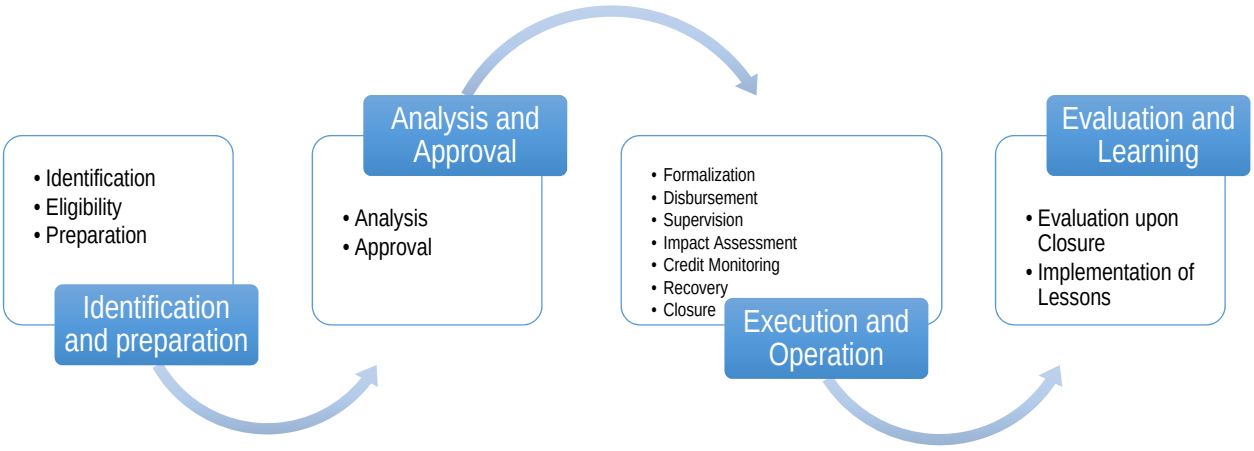
a) CABEI's project cycle

Each one of the macro-processes of the Project Cycle incorporates elements of the sub-cycles of Impact in Development, Financial Sustainability, and Prudent Management of Risk. This alignment is that allows CABEI to have a solid Cycle to ensure that its operations are oriented to fulfill the Bank's mission.

Such macro-processes are split into processes detailing the activities to be conducted for the achievement of the Bank's Mission and Vision, with impact upon development, financial sustainability and prudent management of risk as guiding principles; providing the beneficiaries a quality service, oriented to an ongoing improvement and institutional learning.

[22] Gender and Climate Change: Central American Women's Contributions to Regional Climate Change Policies, June 2010. Women's Forum for Central American Integration, FMICA.

The macro-processes within the Project Cycle are herein below described in a flowchart:



1. Project Identification and Preparation:

The purpose of the Identification and Preparation macro-process is to identify projects that allow CABEI to have a significant impact over economic integration and upon a balanced economic and social development of Central American countries.

2. Project Analysis and Approval:

The purpose of the Analysis and Approval macro-process is to determine whether the projects identified are viable from the point of view of the impact upon development (*ex ante* evaluation) and their technical, legal, and financial feasibility. It is also to identify market factors that could affect the operation, and to make conclusions on the results of the application of the guiding principles, to wit Impact upon Development, Financial Sustainability and Prudent Management of Risk.

3. Project Implementation:

The macro-process of Implementation represents the materialization of the results proposed for the projects. It starts once the intervention is approved and encompasses execution and follow-up, including mid-term evaluation.

4. Project Evaluation and Learning:

The purpose of the macro-process of Evaluation and Learning is the strengthening of the CABEI as an institution subject to ongoing learning, by capitalizing on the lessons learned during execution of the entire Project Cycle. It is upon the end that these are gathered and integrated as a whole.

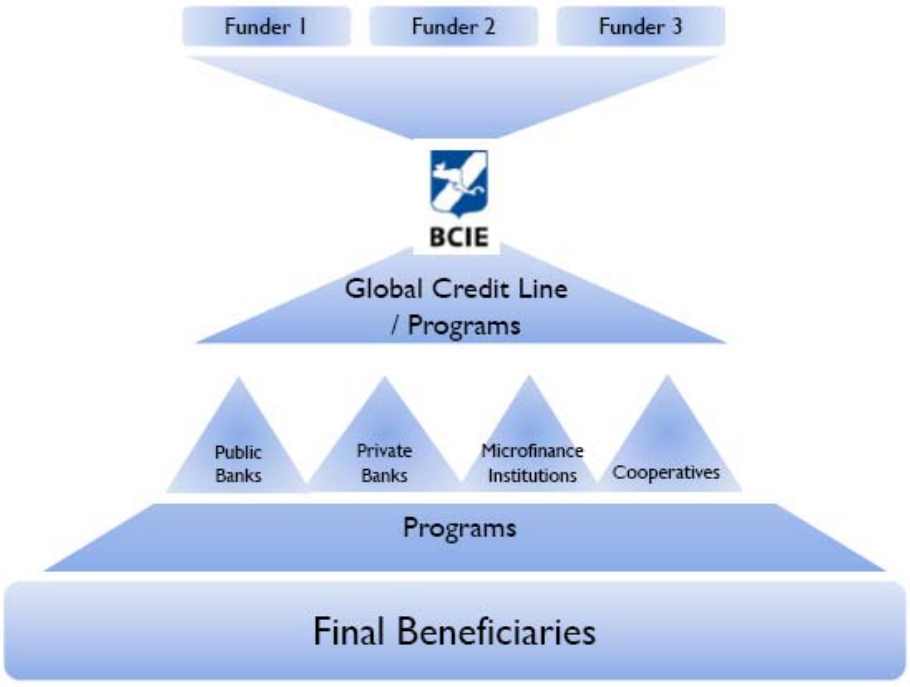
b) Project Cycle of Intermediated Credit

Currently, CABEI is the multilateral organization with the largest network of strategic intermediaries to distribute resources in the Central American region through a Global Credit Line (GCL). It is a network that comprises almost 100 intermediate financial institutions (IFIs), which may be the following: Public Banks, Private Banks, Finance institutions, Non-Banking Financial Institutions (IFNB, in Spanish) and Savings and Loan Cooperatives.

Currently, there is total of 15 Programs of Financial Intermediation, which are implemented through GCLs. These Programs cover support to MSMEs, education credit, social housing, productive sectors, and gender. At the moment the IFI has a GCL from CABEI, it may freely use any of the 15 Programs of Financial Intermediation, depending on the sector it assists or it wishes to assist, as well as the criteria for the use of such program.

The following figure explains CABEI´s model of execution of a credit intermediated.

Figure No.12 Network of financial intermediation



In the model of execution of intermediated credit, different sources of financing step in, and these provide specific guidelines for resource execution. For such execution, CABEI is underpinned by a network of Financial Intermediaries providing it with access

to a Global Credit Line (GCL). Such intermediaries may be private or public banks, microfinance companies or cooperatives.

The GCL consists in a revolving credit quota that any IFI may access through different disbursements under financial intermediation programs implemented by CABEI, pursuant to such IFI financing needs.

The IFIs, through the GCLs, offer financing to the final beneficiaries according to the programs and criteria approved by CABEI. Access to such programs is evaluated in terms of the eligibility criteria inherent to each program, defined by the external source of resources.

c) Analysis and Approval of intermediated credit

Within CABEI, there are Regional Offices in each one of the Bank's founding member countries (Guatemala, El Salvador, Honduras, Nicaragua and Costa Rica). Each office has direct contact with the IFIs (intermediated modality) and other projects at each Regional Office's discretion (direct modality with the public and private sector). Panama and the Dominican Republic are supervised directly from the L Bank's Headquarters in Honduras through a similar structure as within the regional offices.

In the case of IFIs in order to be eligible to opt for an GCL, during the preparation and analysis stages of CABEI's project cycle, the creditworthiness is analyzed depending on the type of institution (regulated or not regulated) using a credit risk methodology to assign to it a credit quota which may be later used through the different intermediated credit programs. The credit risk methodologies used are CAMEL from ACCIÓN International for the case of microfinance companies and PERLAS for the case of savings and loans cooperatives. For the case of banks (both public and private), a methodology known as METRIC is used.

Each one of the above credit risk methodologies analyzes areas such as the institution's capital, the quality of its assets, efficiency, rate of return and liquidity. Such areas have financial indicators to determine a credit risk rating. Among the most important indicators there is financial vulnerability and delinquency, which reflect the quality of the assets of the institution, with which the health and performance thereof is measured.

Also, CABEI has in place an Identification, Evaluation and Mitigation System for Environmental and Social Risk - SIEMAS - through which, and as part of the analysis process, the relevant documents on environmental and social aspects of the IFI are reviewed in order to study and mitigate environmental and social risks. Such analysis takes into account two types of impacts: direct and indirect. Direct impacts derive from the institution's own activities and indirect impacts stem from the projects included in the

loan portfolio of the IFI, the latter defining the level of such institution's environmental and social risk.

The environmental and social risk analysis for financial institution reviews and mitigate against the size and probability of direct and indirect impacts of the IFI, the category of environmental and social risk is defined, the existing controls to mitigate the risks are determined, and any additional measures are established relative to the minimization, mitigation or compensation of risks. This last process is conducted through the preparation of an Environmental and Social Action Plan, which establishes the measures that allow the IFI to manage the risks and/or impacts stemming from the operations with its clients.

The environmental and social credit and impact analysis for the GCL to be granted to the IFI is submitted to the credit committee, which is comprised by different technical areas of CABEI. After approval by the credit committee, such analysis must be submitted for approval by CABEI's Executive Presidency and Board of Directors.

The environmental and social analysis is part of the documents presented to the decision-making spheres for the GCL to be granted to the IFI together with the credit and financial risk assessment. The Environmental and Social Action Plan is an integral part to the loan agreement and its fulfillment is mandatory. In addition, such Action Plan provides a monitoring frequency for the environmental and social aspects during the execution stage of the GCL.

d) Implementation of intermediated credit

After approval of the GCL, the process of loan formalization is conducted, which commissions the IFI to request disbursements related to the programs approved by the CABEI.

Any potential beneficiary MSME may be identified by the IFI or by programs facilitators of CABEI. To grant resources of any program to such MSME, the latter must fill in an eligibility questionnaire containing the selection criteria established by the program. Should the MSME be eligible for such program, the IFI requests the disbursement. To such end, it must deliver a Resource Justification Form, better known as F1, which is stored in a database administered by the FINAM (Unit of Financing for the Majority).

For each disbursement of any operation with intermediated credit, the F1 goes through the following management process:

Table No. 8: Process of Management of the Resource Use Form - F1

F1 Management

Responsible	Apply for	Complete	Review	Validate – Rules, Conditions, Policies	Process	Amend – Substitute - Remove	Consult
Intermediate Financial Institution		✓				✓	✓
Project manager	✓		✓				✓
Intermediary Operations Technicians				✓	✓		✓

The F1s and the databases have become CABEI's reliable instruments backed by internal agencies and external resources, which serve among other purposes to fulfill the obligations deriving from agreements entered into with such funders.

The information generated through the database, on each one of the intermediation programs, also serves as input for: 1) generating statistics of the programs to understand and direct the channel of intermediated resources; 2) making on site visits requested by the different external sources at the domicile of the final beneficiaries; 3) supervising on site periodically by the CABEI; 4) conducting impact assessments by the CABEI and its external sources, over the final beneficiaries; and 5) conducting internal and external audits on the dockets.

It is worth mentioning that CABEI keeps a monthly statistical control of the disbursements made per country, per IFI and Program. With that, CABEI keeps its external sources and the internal Bank's sources up to date. Such process allows to keep a control over the maximum amounts that can be allocated per program, and calculate resource availability to ensure the GCL remains revolving.

Each one of the disbursements made are recorded in the bank systems in such a way that disbursements are assisted with external resources, allowing to obtain information on the portfolio, the sum disbursed, as well as information of final beneficiaries and projects assisted with CABEI's own resources and with external resources.

e) Revolving process

The revolving nature of the GCL of the IFI makes it possible to generate resource availability to the extent credit is paid back. And such resources available may be allocated again, and in this way, allow the disbursements or financing to grow to keep assisting the demand.

With the revolving nature of the GCL, the IFI may keep channeling resources granted by the CABEI to cover its demand and thus reach sustainability. For example, a financial institution of the region has disbursed over a period of 15 years a total sum of US$ 54 million using a line approved for US$ 9.0 million. This entails a GCL revolving 6 times, thus contributing in its own way to its sustainability. The allocation of resources thus

revolved entails the performance of new disbursements. That is why the same requirements to use the GCL are applied.

f) CABEI's experience with intermediation schemes

The CABEI is the multilateral organization with the largest network of strategic intermediaries to channel resources in the Central American region. This network comprises 98 intermediate financial institutions (IFIs): 9 Public Banks, 36 Private Banks, 14 Finances companies, 27 Non-Banking Financial Institutions (IFNB), and 12 Cooperatives.

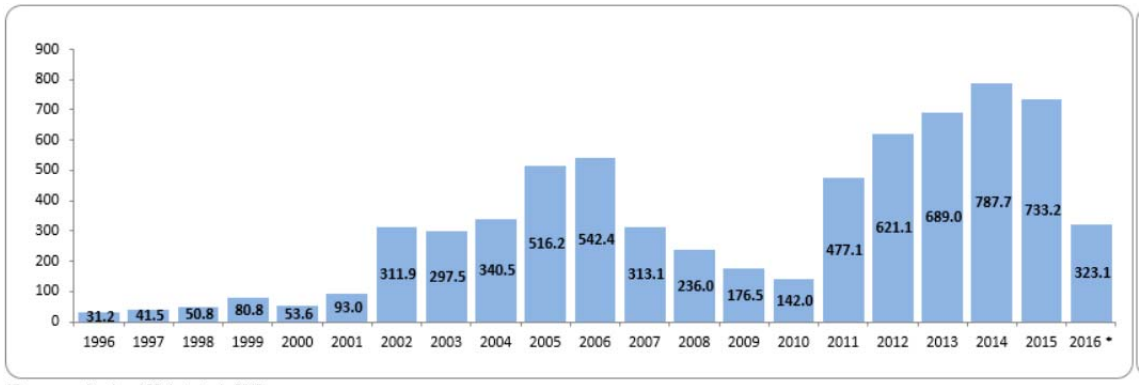
Table No. 9 Composition of the network of intermediary institutions of the CABEI, per country.

Institution Type	Guatemala	El Salvador	Honduras	Nicaragua	Costa Rica	Panamá	Colombia	Total
Public Banks	0	4	2	0	2	0	1	9
Private Banks	5	5	9	5	11	1	0	36
Finances co.	1	3	3	1	6	0	0	14
Non-Banking Financial Inst.	3	18	1	3	2	0	0	27
Cooperatives	1	1	4	1	5	0	0	12
Total	10	31	19	10	26	1	1	98

Source: FINAM Unit, CABEI

Since 1996, through intermediation, **US$ 6,858.3 million** have been disbursed through ongoing applicable programs. The following figure shows the annual level of disbursements which the CABEI has made through "ongoing" intermediated programs.

Figure No. 13 Disbursements Programs of Intermediated Credit (US$ million)



*Datos actualizados al 30 de junio de 2016
Fuente: Datos obtenidos del Sistema Datawarehouse, BCIE. Datos actualizados al 30 de junio de 2016
Nota: Se excluye Deuda Subordinada.

It is worth stressing that all financial intermediation programs of the CABEI keep the same operative rationale, which allows the Bank to know with the best possible detail,

and in an efficient and reliable manner, all projects and persons benefiting from the resources that the CABEI channels through the IFIs of the region, public and private.
The CABEI has achieved great results, positive and tangible results, by engaging in the financial sector. As of June 2016, 722,341 businesses employing 1,350,918 people have received support. Opportunities have been provided for progress to low-income households by strengthening their efforts with loans of US$ 740.0 in average for micro-sized enterprises and US$41,805 for SMEs.

Likewise, through microfinance institutions, the CABEI has managed to progressively extend its effect towards poorest households, towards rural areas and towards the most vulnerable sectors. Through the program of Support to MSMEs, US$662.7 millions have been channeled towards production activities in rural areas, US$161.2 million of which have been related to agriculture and livestock.

The vast experience of the CABEI, through its unit specialized in MSMEs, (currently FINAM Unit) in the management of financial intermediation programs, with special emphasis on the support to Micro, Small and Medium Sized Enterprises (MSMEs), are summarized in the following table. All of them have had a 100% execution.

Table No. 10 CABEI experience in the management of financial intermediation program with emphasis on MSMEs.

SOURCE:	PROGRAM / MECHANISM	OBJECTIVE	SUM PROGRAM
Global Environment Fund (GEF)	Regional project "Central American Markets for Biodiversity (CAMBio)"	Draw investments in MSMEs and promote biodiversity conservation in the region	US$ 10.2 million
	Regional Project "Accelerating Investments in Renewable Energy in Central America through CABEI (ARECA, its acronym in Spanish)	Remove any financial and capacity barriers for the development of small or mid-scale renewable energy projects (of less than 10 MW) in Central America.	US$ 6.92 million
Taiwan	ICDF- CABEI SME Support Program I	Provide financing for Small and Medium Sized Enterprises (SMEs), whether urban or rural, through intermediate financial institutions.	US$ 10 million
Taiwan	ICDF – CABEI SMME Program II		US$ 10 million
Taiwan	CABEI Program for Education-oriented Loans (PBCE)	Support the formation of human resources of member countries by granting resources on long term through the regional financial system and Central American institutions devoted to educational financing to increase access to technical formation and higher education.	US$ 4 million

Mexico	Program for the Development of Social Housing in Central America.	Aid low-income households to acquire, build and improve their houses.	US$ 32.4 million
Germany	Regional Microfinance Program	Provide financing for Micro, Small and Medium Sized Enterprises (MSMEs), whether urban or rural, through intermediate financial institutions.	€ 15 million
Germany	Regional Microfinance Program II		€ 20 million
Germany	Green MSMEs Initiative / Environmental Credit Program	Contribute to climate and environment protection through MSMEs in the region.	€ 30 million
European Union	Green MSMEs Initiatives		€ 3 million
Germany	DINAMICA Initiative	Contribute to foster innovation and entrepreneurial attitude as well as to strengthen the financial sector assisting the MSMEs in order to contribute to the socio-economic development and reduction of regional poverty.	€ 40 million
European Union	DINAMICA Initiative		€ 3.8 million

g) Experience with CAMBio project

With regards to the project with most of similarities with the proposed project, Proyecto regional "Mercados Centroamericanos para la Biodiversidad (CAMBio) [23]" and its prolongation, "Biodiversity friendly MSMEs", a total of 22 IFIs have participated, having disbursed more than USD 56 million. The majority of the participating IFIs have corresponded to non banking institutions. The table below shows a detail of the numbers.

Table No. 11. Types of IFIs having participated in CAMBio and Biodiversity Friendly MSMEs programs, 2008-2015

[23] The project CAMBio, *Central American Markets for Biodiversity: Mainstreaming biodiversity conservation and sustainable use within micro-, small, and medium-sized enterprise development and financing*, was a tripartite initiative of the GEF (Global Environment Facility), UNDP (United Nations Development Programme), with financial support from CABEI (Central American Bank for Economic Integration). The main objective of the project was to remove financial barriers by providing loans to Micro, Small and Medium Enterprises that facilitate technology adoption and cause the transformation of production practices that contribute to biodiversity conservation.

Tipo de Institución	# de Instituciones	Monto Desembolso Justificado USD
Banco Estatal	2	19,507,789.54
Banco Privado	8	24,501,453.38
Cooperativa	5	1,932,834.56
Institución Financiera No Bancaria	12	10,497,198.49
Total	**22**	**56,439,275.97**

In order to have an approach to the type of beneficiaries that this project will reach, this section offers an analysis of the results of the CAMBio project. As presented in the Introduction section, the project was successfully implemented with the same intermediation scheme as the one proposed in this project. This project is taken as a basis for the new project because it focused on access to credit for MSMEs for environmentally friendly investments and thus it is the most similar experience in CABEI, and constitutes a foundation of the new proposal.

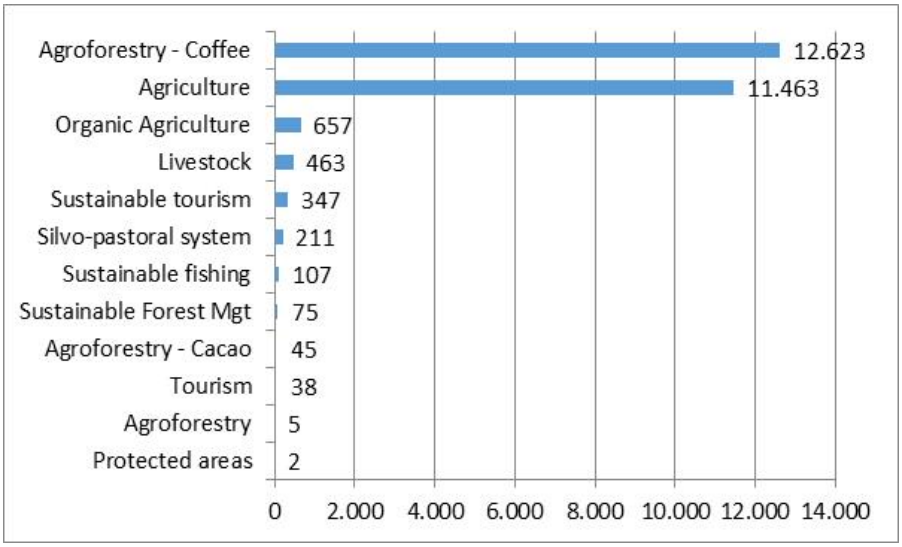
CAMBio has granted 12,107 loans to date, reaching a total of 26,036 beneficiaries. 60% of the more than 56 million disbursed have been awarded to medium-sized enterprises, 26% medium and 14% small. However, in terms of number of loans granted, the vast majority, 92%, have been granted to small businesses. This responds to a logic of credit decision capacity for different types of businesses: it is important to note that a significant portion of the loans were micro scale.

With regards to size producers, it is important to note that the size of the companies does not necessarily reflect the size of producers, medium sized companies were mostly large cooperatives composed of several small-scale producers, where credit is managed and distributed within the organization.

Table No. 12. Amount and number of loans and beneficiaries, by type of MSMEs in the CAMBio project

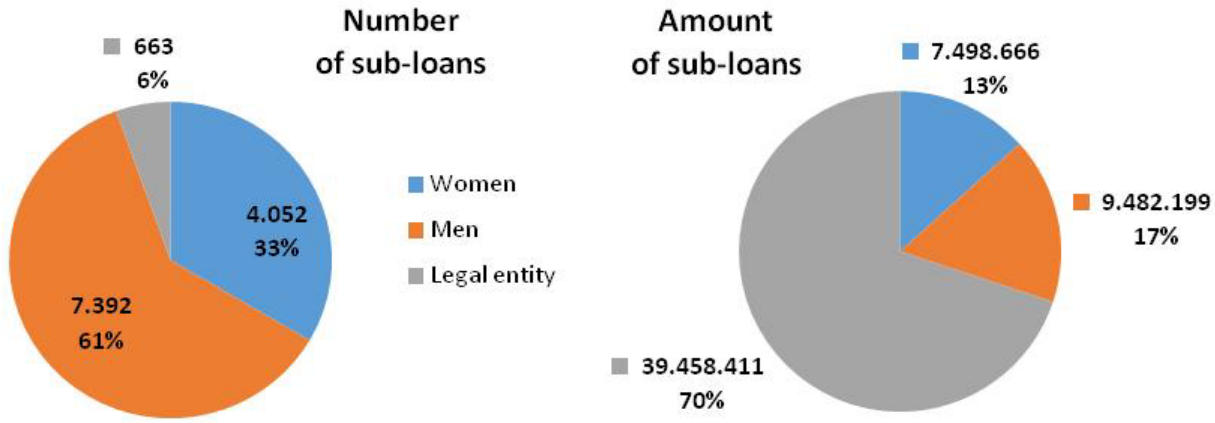
Type of MSME	Amount of loans (USD)	Number of loans (USD)	Total beneficiaries
Micro	7.977.476,69	11.084	11.224
Small	14.567.075,92	738	5.701
Medium	33.894.723,36	285	9.111
Grand Total	56.439.275,97	12.107	26.036

Chart No. 4. Total beneficiaries by productive system



CAMBio's database allows analyzing women's participation under two aspects: first, how many women and how many men gained access to credit, either because they have applied directly or because they have obtained it through their cooperative; on the other, how many women, men and organizations had the credit in their names. Thus, it can be seen that 37 % of the total beneficiaries were women. As for credits direct application, 70% of the total amount was recorded in legal entities (organizations, cooperatives, companies), representing 6 % in terms of quantity. Figures below show these proportions.

Figure No.14 Number and amount of sub-loans by gender/legal entity in CAMBio project



~~1.~~

Lessons Learned: CAMBio, has allowed the identification of lessons learned that have been taken into account during the design of this project, among the main ones are the following[24]:

- Public-private partnership has a great potential for expanding environmental and social benefits generated through lending to agricultural activities.
- Financial institutions have very well-defined strategies for financial markets and credit infiltration. Lending to agriculture continues to be seen as a very risky business. With the exception of microfinance institutions, FIs do not target micro and small farmers and this sector continues to face severe barriers to financial inclusion. A new initiative must openly address these limitations, to define potential project beneficiaries.
- Microfinance institutions and agricultural lending cooperatives are better prepared to provide financial services to the smaller production sectors and achieve greater financial inclusion in their networks.
- Ideally, the bracket of potential profitable farmers would be identified that--with the assistance of loans, technical assistance and chain markets--would be able to overcome barriers and become competitive, and exit the productive stagnation that keeps them in poverty.
- A new initiative must clearly define a typology of farmers and productive systems as target groups. A clear target group will allow lending to be effectively integrated with technical assistance and anchor market chains.
- There are substantial differences in production technologies, and in levels of vulnerability faced by farmers for sustaining livelihoods. A new initiative must be firmly anchored among small-scale farmers.
- A profound assessment is required to understand sector niches and opportunities.
- A comprehensive ecosystem approach is needed. To reduce deforestation, land degradation, climate change adaptation and biodiversity losses, additions at the farm and landscape levels must be carefully assessed with an agro-ecology perspective. Conservation management strategies must also be part of the picture.
- A project of this scale and complexity needs optimal institutional anchoring and active stakeholders very embedded in project implementation.

[24] Based on CAMBio Project's Final Evaluation Report.

Project / Programme Objectives:

List the main objectives of the project/programme.

The project **goal** is to enhance capacity to implement adaptation measures for micro, small and medium agricultural enterprises from Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, Panama and Dominican Republic, in order to increase their resilience to climate change, ensuring the provision of financial and non-financial services to support ecosystems and agricultural production, as well as providing technical assistance in the adaptation planning processes and incentives to define specific alternatives of resilience and investment management.

The project will support the mainstreaming of ecosystem services conservation and sustainable use within micro, small, and medium-sized enterprise (MSME) development and financing in seven countries (Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, Panama and Dominican Republic), linked to production and service activities related to agroforestry coffee, cocoa agroforestry, organic agriculture, silvopastoral systems, sustainable tourism, private / community protected areas, sustainable forest management, fisheries and sustainable aquaculture, among others.

This project will enhance adaptation measures and build resilience of micro, small and medium scale enterprises by encouraging transformed productive and service sector practices related to investments that can have a positive environmental impact.

The project will be implemented through CABEI´s regional financial sector network, in order to develop and extend new green financial products and increase the level of lending to MSMEs that implement adaptation measures in their production process promoting Ecosystem-based Adaptation systems.

The project will also work in partnership with a range of national and international institutions that have been supporting their sustainable growth and development, in order to increase the ability of MSMEs to develop environmentally friendly business opportunities, which are financially viable and secure financing for the investments.

Finally, it will work with Governmental and inter-governmental institutions, including Ministries of Environment, relevant sectorial ministries (agriculture, industry, tourism, finance, etc.) to support an enabling environment that will encourage MSMEs both to prosper and generate adaptation measures.

The initiative will promote innovation and provide solutions of adaptation to climate change through the following **specific objectives**:

2.1. **By reducing the obstacles to credit access for MSMEs.** Access to lending will be promoted through financial and non-financial mechanisms that will allow to reducereducing the risk inherent to all production activities. These systems will be promoted through the network of IFIs accredited by CABEI across the region. Through this financing, the implementation of best practices for production andadaptation measures with a natural resource conservation of natural resourcesapproach (soil, water, forests and biodiversity) will be promoted as well as the consolidation of production systems adapted to climate change.

3.2. **By Strengthening Capacities.** Producers will benefit from training and technical assistance services, as well as participatory processes, improvement of their organizational, productive, administrative, accounting capacities, improvement of their access to selected markets, and introduction of new technologies. All of the above with the purpose of developing environmentally friendlybest adaptation measures for production models.

4. **By strengthening production chains.** During the project's cycle, producers will be coupled with buyers, benefits and agro-industries interested in the production and trading of environmentally friendly services and goods.

By promoting Green Certificates, considering the market's regulations and requirements.**3. By promoting MSMEs** willing to prepare themselves to adequately face climate variability, at the same time preserving natural resources and assets, **and supporting IFIs** adoption of credit mechanisms that enhance adaptation measures.

5.

Lessons Learned: Past projects in rural development and natural resource management such as CAMBio[25], have allowed the identification of lessons learned that have been taken into account during the design of this project, among the main ones are the following[26]:

- Public-private partnership has a great potential for expanding environmental and social benefits generated through lending to agricultural activities.

[25] The project CAMBio, *Central American Markets for Biodiversity: Mainstreaming biodiversity conservation and sustainable use within micro-, small, and medium-sized enterprise development and financing*, was a tripartite initiative of the GEF (Global Environment Facility), UNDP (United Nations Development Programme), with financial support from CABEI (Central American Bank for Economic Integration). The main objective of the project was to remove financial barriers by providing loans to Micro, Small and Medium Enterprises that facilitate technology adoption and cause the transformation of production practices that contribute to biodiversity conservation.

[26] Based on CAMBio Project's Final Evaluation Report.

- ~~Financial institutions have very well-defined strategies for financial markets and credit infiltration. Lending to agriculture continues to be seen as a very risky business. With the exception of microfinance institutions, FIs do not target micro and small farmers and this sector continues to face severe barriers to financial inclusion. A new initiative must openly address these limitations, to define potential project beneficiaries.~~
- ~~Microfinance institutions and agricultural lending cooperatives are better prepared to provide financial services to the smaller production sectors and achieve greater financial inclusion in their networks.~~
- ~~Ideally, the bracket of potential profitable farmers would be identified that with the assistance of loans, technical assistance and chain markets would be able to overcome barriers and become competitive, and exit the productive stagnation that keeps them in poverty.~~
- ~~A new initiative must clearly define a typology of farmers and productive systems as target groups. A clear target group will allow lending to be effectively integrated with technical assistance and anchor market chains.~~
- ~~There are substantial differences in production technologies, and in levels of vulnerability faced by farmers for sustaining livelihoods. A new initiative must be firmly anchored among small scale farmers.~~
- ~~A profound assessment is required to understand sector niches and opportunities.~~
- ~~A comprehensive ecosystem approach is needed. To reduce deforestation, land degradation, climate change adaptation and biodiversity losses, additions at the farm and landscape levels must be carefully assessed with an agro ecology perspective. Conservation management strategies must also be part of the picture.~~
- ~~A project of this scale and complexity needs optimal institutional anchoring and active stakeholders very embedded in project implementation.~~

Project / Programme Components and Financing:

Fill in the table presenting the relationships among project components, outcomes, outputs and countries in which activities would be executed, and the corresponding budgets.

For the case of a programme, individual components are likely to refer to specific sub-sets of stakeholders, regions and/or sectors that can be addressed through a set of well-defined interventions / projects.

Project/Programme Components	Expected Outcomes	Expected Outputs	Countries	Amount (US$)
1. Innovative financial mechanisms for Ecosystem based Adaptation measures	Barriers to credit for MSMEs adopting EbA measures are reduced~~.~~ and MSMEs' resilience is strengthened. Increased awareness among financial institutions of potential market opportunities for lending to MSMEs that invest on resilience to climate change	5,000 MSMEs receive credit for the implementation of EbA measures, and are entitled to receive technical support. At least 10 IFIs operate credit lines for adaptation investments	Guatemala, Honduras, El Salvador, Nicaragua, Costa Rica, Panama and Dominican Republic	25,000,000 (CABEI)
~~2. Incentive schemes to promote Ecosystem based Adaptation measures (Bio-Bonus)~~	~~Incentives to MSMEs adopting EbA measures is expanded~~ ~~Productive chains strengthened~~ ~~Promoting green seals and certifications~~	~~4,000 MSMEs receive incentives for adopting EbA measures.~~	~~Guatemala, Honduras, El Salvador, Nicaragua, Costa Rica, Panama and Dominican Republic~~	~~2,000,000 (Adaptation Fund)~~
~~3~~2. Capacity Building for the Development of Production Models Resilient to Climate Change	~~Rural communities~~MSMEs receive support for adequately designing their adaptation investments MSMEs increase their knowledge and means ~~to respond to climate change risks and~~ adapt their agricultural production systems~~.~~			

, and

Rural Technical assistance related to credit	Assistance for the achieved/ disseminated.			
	Guatemala, Honduras, El Salvador, Nicaragua, Costa Rica, Panama and Dominican Republic	32,000,000 (Adaptation Fund)		
4. Project Coordination Unit (PCU)3. Incentive schemes to promote Ecosystem based Adaptation measures (Adapt-Award)	Incentives to MSMEs adopting EbA measures is expanded Project Management, Monitoring and Evaluation.	4,000 MSMEs receive incentives for adopting EbA measures.Establish technical team: 1 coordinator, 2 technical assistant and 5 field facilitators.	Guatemala, Honduras, El Salvador, Nicaragua, Costa Rica, Panama and Dominican Republic	To be defined 3,000,000 (Adaptation Fund)
6. Project/Programme Execution cost (only Adaptation Fund components) 7. Total Project/Programme Cost (only Adaptation Fund components) 8. Project/Programme Cycle Management Fee charged by the Implementing Entity (if applicable)				30,000525,000 To be defined5,525,000 To be defined469,625
Amount of Financing Requested				5,000,000994,625

Projected Calendar:

Indicate the dates of the following milestones for the proposed project/programme

Milestones	Expected Dates
Start of Project/Programme Implementation	April 2017
Mid-term Review (if planned)	June 2019
Project/Programme Closing	December 2022
Terminal Evaluation	June 2022

PART II: PROJECT / PROGRAMME JUSTIFICATION

A. Describe the project / programme components, particularly focusing on the concrete adaptation activities, how these activities would contribute to climate resilience, and how they would build added value through the regional approach, compared to implementing similar activities in each country individually. For the case of a programme, show how the combination of individual projects would contribute to the overall increase in resilience.

I. ~~Components~~

a. ~~Component 1: Innovative financial mechanisms for Ecosystem based Adaptation Measures (EbAM)~~

~~The purpose of this component will be to stimulate financing (through Intermediate Financial Institutions or IFI) in favour of Micro, Small, and Medium Sized Enterprises for the adoption of adaptation measures in the face of climate change impacts, based on sustainable management of resources with an ecosystem based approach in their productive systems. These measures can include incorporating sustainable production, protection, conservation of natural resources, in their businesses, goods and services. Such measures may fall under:~~

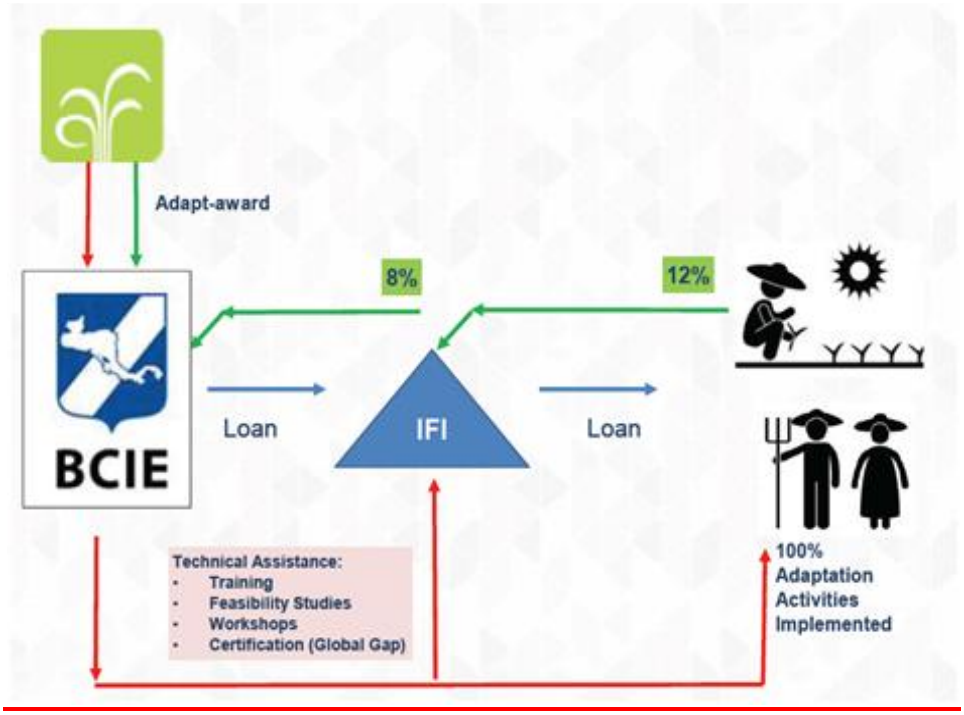
- ~~Best environmental (agro-ecological) practices, including, production diversification; preparation and use of organic fertilizers; pest integrated management; manual control of weeds; selective pruning; development of live barriers or windbreaks; use of live fencing, among others.~~
- ~~Conservation programs, including soil and groundwater conservation; on-farm recycling plan; flora and fauna species protection; silvo-pastoral management; integrated waste management; reforestation with native species, among others.~~
- ~~Adaptation –measures directly designed to mitigate the effects of hydro-meteorological extreme events, including the incorporation of silo deposits; the use of varieties resistant to climate extreme events; the storage of water; or efficient irrigation systems adapted to a small scale, among others.~~

II. ~~Special emphasis will be placed on the potential for creating jobs and on the incorporation of a rights approach (gender, indigenous peoples) aligned with the~~

~~Adaptation Fund's Environmental and Social Safeguards and CABEI's Environmental and Social Policy.~~**General framework**

This section provides a brief introduction about the general scheme of the project, in order to describe the interaction between the three Components and the adaptation measures proposed by the project. A more in-depth description of the components is provided in the subsequent sections.

Figure No. 15. Project operational scheme



It is important to emphasize that the three components are fully interlinked and thus they would all contribute to the adaptation objectives of the project. No credit granting would be possible without the existence of Adapt-awards and Technical Assistance.

Thus, AF results are equivalent to the results of the whole project. A summary of the functioning of the scheme is as follows:

Technical

1) Assistance (Component 2 - AF) is provided in order to prepare IFIs for the management of this project; as well as to support MSMEs in needs of assistance to undertake assessments of their adaptation needs and to help them prepare their Business Plans. Technical Assistance is provided throughout the project to enhance knowledge about adaptation strategies, markets, organizational aspects of MSMEs; to perform feasibility assessments; and to support dissemination activities, among others.

2) Loans are granted (Component 1, CABEI) after having assessed their eligibility (vulnerability to climate change and credit capacity)and having evaluated the Business Plan submitted by the MSME. This Business Plan includes at least a description of climate change threats, adaptation measures proposed, environmental and social plan if applicable, budget and credit payment plan,

Once adaptation activities are achieved

~~Credit will be provided through the Intermediate Financing Institutions (IFI) Network either regulated or not regulated accredited by CABEI.~~

~~CABEI is the main source of multilateral resources for the MSME sector in the Region through the financing of over USD 2,000 million oriented to the microfinances~~ and ~~SME sectors. Also, CABEI has over 14 years working in the financial sector at a regional level, seeing to the needs for resources of Intermediate Financial Institutions (IFIs) through the financial product known as Global Credit Line (GCL), instrument oriented to direct the Bank's resources to the IFIs. The GCL is a revolving loan quota that the IFIs make available to be used through different disbursements under the programs of financial intermediation in force in the CABEI, as the IFIs need~~verified, Adapt-awards are granted (~~.~~

~~**CABEI's** programs of financial intermediation are oriented to finance investments for SMEs, education, housing, municipalities, foreign trade, and production sectors, among others, with the purpose of promoting development through the regional financial sector.~~

~~Bearing in mind the aforementioned, CABEI has the largest network of intermediate institutions to channel resources in Central America, with over 100 institutions being members of this network of financial intermediaries. This network includes public/state banking entities, private banks, micro-financial institutions, non-bank financial institutions, and savings and credit cooperatives.~~

It is worth mentioning that CABEI's financing, via the IFIs, has assisted MSMEs located in both urban and rural areas, through the different programs of financial intermediation oriented to assist the MSMEs sector and through the granting of resources to assist the activities oriented to the strengthening of the agricultural production systems and investments oriented to biodiversity protection.

b. Component 2: Incentive scheme to promote Ecosystem-based Adaptation Measures (Bio-Bonus).

Incentives will support changing attitudes towards conservation and sustainable use of natural resources (land, water, forest, biodiversity) through the implementation of adaptation measures on MSMEs productive systems. In addition, the incentives will support IFIs adoption of green credit mechanism that enhance adaptation measures. The implementation of best practices and improved investments will be favoured. This will promote the generation of businesses willing to preserve natural resources and assets, and will therefore be environmentally sustainable.

3) , Component 3 - AF). The measure proposed by this component consists in the refund in cash of 20% of the loan principal granted by the regulated or non-regulated IFIs (up to USD 10,000). This incentive will be distributed between MSME and IFIs in a percentage of 60% of the refund for the MSME and 40% for the IFI.

Micro, small and medium enterprises are a new world for financiers. The businesses are normally run by families, their financing needs are much smaller, fixed investments limited and business based on quick cash flow. Very few formal banks can service this sector.

The region has, however, an established network of successful non-banking institutions able to cater for a good deal of the needs for business financing for small entrepreneurs. There still exists a vast need for financing for this sector, even if the lending volumes have been growing rapidly. Environmentally friendly activities pose an even larger financing challenge at this moment for micro enterprises. As the IFIs work close to them and are subject to smaller individual transaction risk they can accept less stringent collateral.

On the other hand, the lending terms are tighter in terms of shorter loan maturities, and are priced high to reflect the high funding and transaction costs. The proposed reward facility, shared by the IFI and the clients after the adaptation measures have been achieved, would act as a de facto interest subsidy. The micro or small enterprise client could thus afford to service the loan from environmental friendly business proceeds and would be induced to plan the investment environmentally friendly.

On one hand, this incentive would give an incentive to the IFI in order to reduce the level of risk of MSMEs and promoting green credit mechanisms .On the other hand, this incentive act as a boost towards increased spread (i.e. lower funding cost) for the IFI. Increased funding to new clients (and especially to environmental friendly business) should be achieved due to the resulting lower price of borrowing for potential clients.

The target setting for the incentive scheme will be set on a case-by-case basis with assistance from an environmental organization. The selection process, which will be defined during project formulation, shall be competitive and transparent. These requirements for granting will be oriented towards good environmental practices implemented under the focus of the community and not individuals, ensuring that effective monitoring and evaluation procedures have been implemented.

c. Component 3: Capacity building for the development of production models resilient to climate change.

Their purpose is to provide support through non-refundable resources to the MSMEs that benefit from credits by improving their technical and entrepreneurial capacities to enhance their efficiency and competitiveness. This output will substantially contribute to raising the awareness level of the MSMEs on the needs to adapt to climate change and their concrete measures, under a sustainable management approach regarding natural resources (water, soil, forests and biodiversity), improved technical and production capacity, as well as an improved capacity to do business and access new markets.

Similarly, through technical assistance, the implementation of the measures detailed in output 1 will be promoted: agro-ecological measures, conservation programs, and direct adaptation measures to hydro-meteorological extreme events.

Technical Assistance modalities will be:

- **Assistance for the development of sectorial initiatives:** financial support for initiatives aimed at strengthening capacities on investments oriented to ecosystem and agricultural production system adaptation to climate change, and at removing financial obstacles for these sectors. Some examples of the activities subject to financing are: training workshops, business/institutional meetings, exchange of experiences, business rounds, expos, hiring of services, sponsorships and publications.
- **Technical assistance for pre-investment:** support aimed at Micro, Small, Medium and Sized Enterprises (MSMEs) for the performance of studies prior to execution of new investments of adaptation to climate change or for the support

~~of existing investments that call for expansion, diversification or support to access financing.~~

- ~~**Credit-related technical assistance:** support to assist the MSMEs benefiting from loans obtained through the initiative, to enhance their technical and entrepreneurial capacities, including technical support and assistance to the associated IFIs. Some examples of such support are related to improvement of production capacity, administrative, accounting and other logging systems.~~

~~These modalities intend to cover the needs for technical and entrepreneurial assistance of the applicants and promote the development and financing for MSMEs and the strengthening the capacities of associated IFIs, as well as the development of agricultural production systems resilient to climate change.~~

~~Business-wise, the Project will promote the participation of MSMEs in entrepreneurs' meetings, congresses, shows, trade fairs, and business rounds (i.e. Agritrade, Biofach, Biofach America, Hablemos de Café, Hablemos de Roya, Taiwan Tea, Coffee and Wine Expo, among others) for them to promote their products and achieve more access to new selected markets. To reinforce the regional aspect, exchanges between project's participants from the 7 participating countries would be promoted. In the same line, advisory will be provided aiming at improving the managerial, accounting, administrative, permitting and marketing aspects.~~

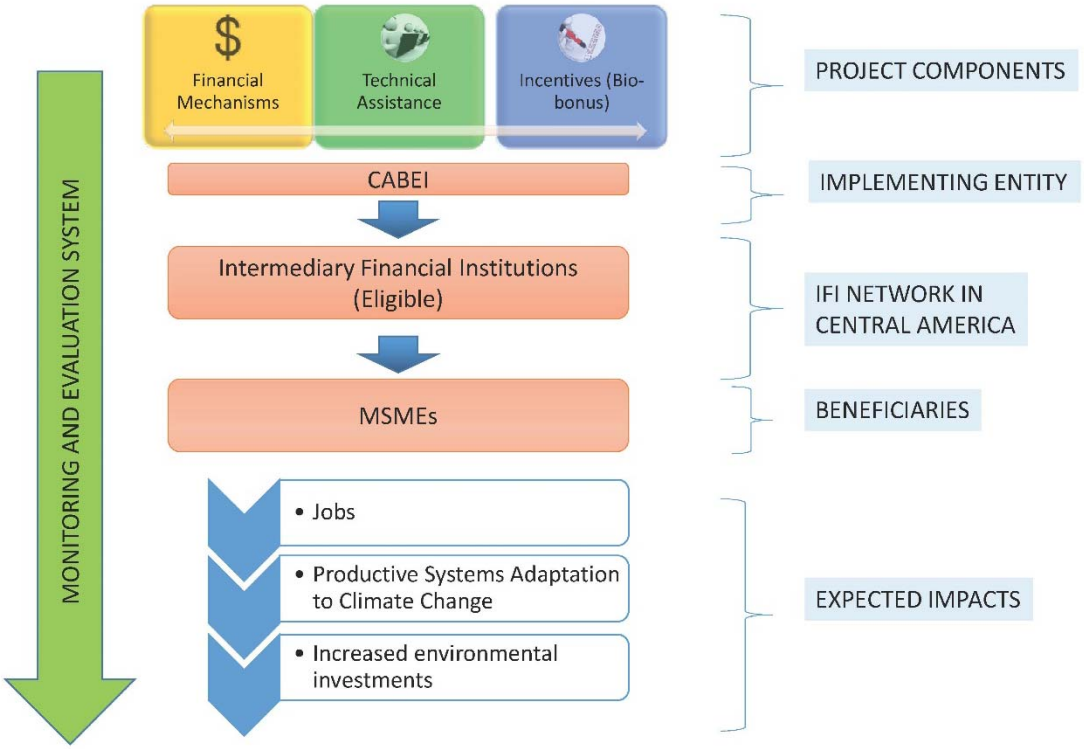
~~Furthermore, substantial boost will be given to the development of production chain building, and innovations will be implemented within the production systems, through adaptation measures to climate change impacts based on resource sustainable management with an ecosystem approach.~~

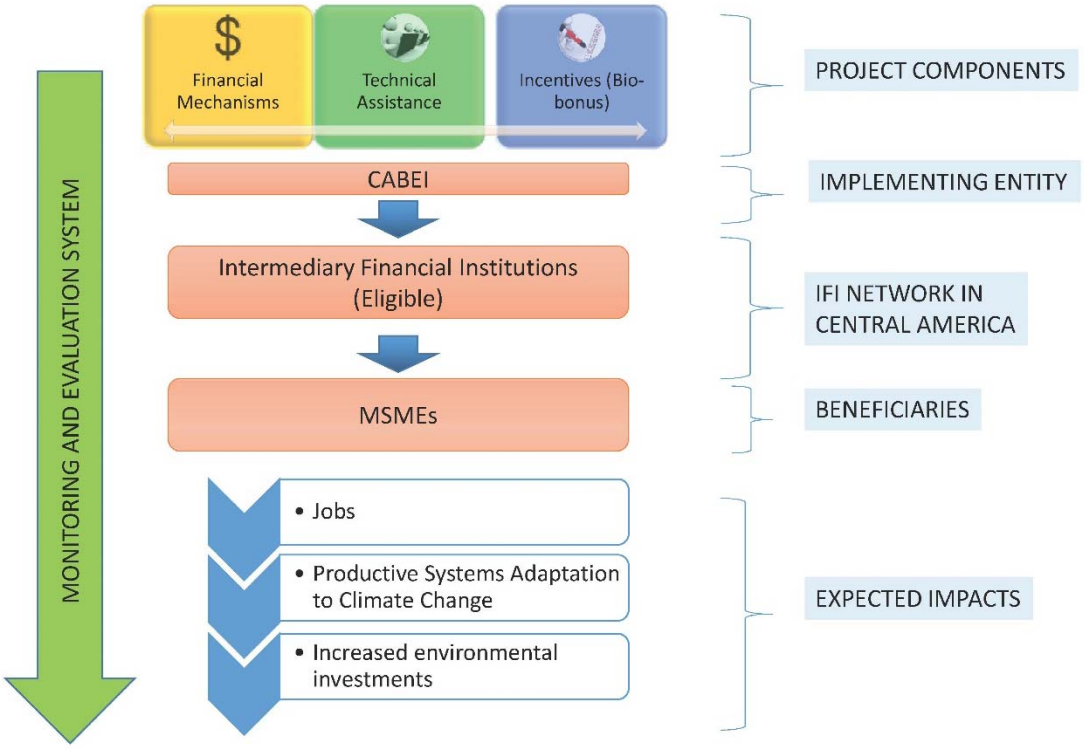
~~It will also benefit the teams within financial institutions in the Region, strengthening their capacities for credit analysis, incorporating environmental and social risks issues, financial evaluation of projects, business plans, management of protected areas, certification seals, biodiversity and diversification of the loan portfolio. It is expected that capacity building will have an effect on a larger and more flexible placement of loans, better attention to MSMEs and diversification of their portfolio.~~

It is essential to ensure that MSMEs and IFIs are trained by Technical Assistance to comply with the functioning of the scheme and to adequately design adaptation measures. The access to credit is enhanced by the application of Adapt-awards that help beneficiaries re-paying the loans and IFIs to lower their funding costs and the level of risk of MSMEs. Incentives and Technical Assistance are the catalyzers of the loan granting. For further details about CABEI's experience with other intermediation programs, please refer to background/context section.

~~II.~~ Implementation mechanism for service delivery and expected benefits

To ensure delivery of services to MSMEs, the next model will be implemented.





Thus, each component will be implemented through the network of IFIs accredited by CABEI, with the aim of support beneficiaries, MSMEs, to adapt their production systems to climate change, while generating employment and environmental investments increase (expected impacts). This whole model crossed by an appropriate monitoring and evaluation system that allows continuously feedback with lessons learned.

Eligible adaptation measures

A list of possible adaptation measures that will be funded is provided below.

Table No. 13 Possible adaptation measures

Reducing risks associated with climate events in production activities through the implementation of actions including:
• Promotion of local seed banks and varieties resilient to droughts, pests, and diseases. • Mix-use greenhouses • Diversification of production units and staggered planting of crops with the purpose of mitigating the risk associated with prices, climate seasonality and risk of losses. • High-density planting • Establishing agro-forestry systems, and agro-silvopastoral (pastures and fodder) systems.

• Crop rotation • Soil conservation (zero tillage, coverage). • Preparation and use of organic fertilizers. • Integrated pest management. • Production and processing certification. • Construction of water reservoirs (water harvesting), drainage and efficient irrigation systems (drip) • Rainwater catchment in water reservoirs or cisterns connected with agricultural production. • Shade houses for a protected agricultural production. • Storage structures (silos, warehouses, stockpiling centers)
Reducing the pressure on the ecosystems and conservation of natural resources. • Sustainable forestry management and design of forest management plans. • Use of firewood-saving stoves. • Firebreaks. • Reforestation with native species. • Conversion of land use through species for medicinal and edible use (fruit trees and others). • Use of forest by-products • Certification for forest plantations and natural woodlands, among others.
Improving social and economic resilience of the populations. • Family and community vegetable gardens. • Eco-tourism and sustainable tourism • Beekeeping • Fish farming • Access to credit, specialized technical assistance and incentives (Adapt-award) for adaptation to climate change.

Tables 14 and 15 below describe a) how these activities would respond to the threats posed by climate change in the region, and b) how the proposed adaptation activities are related to derived ecosystem services and benefits.

Table No. 14 Purpose of the activities and climate threats

Activity	Climatic threats addressed				
	Temperature increase	Drought increase	Increase in rainfall intensity	Wildfires	Accelerated deforestation
Restoration: • Reforestation • Conversion of land use • Firebreaks. • Firewood saving stoves	Expand tree planting to reduce temperature and evapotranspiration	Enhance tree cover helps retain soil moisture and protect from wind and water erosion.	Enhance tree cover helps protect against and prevent landslides.	The use of firebreaks prevents the advance and dissemination of forest fires and loss of biodiversity.	Firewood-saving stoves reduce firewood consumption for energy uses.
Adaptation of crops to climate variability (seed banks)	Increased resilience to high temperatures, pests and diseases	Increased tolerance to droughts.	N.A.	Fires are reduced due to substitution of land use for food production	N.A.
Soil conservation: • Zero tillage • Crop rotation/association • Organic fertilizers	Reduced evapotranspiration and invariable temperature well suited for growing crops.	Soil coverage maintains soil moisture and reduces evapotranspiration.	The impact and process of erosion diminishes through soil coverage.	Fires are reduced due to substitution of land use for food production	N.A.
Agro-forestry/Agro-silvopastoral systems	Temperature and evapotranspiration are reduced.	Soil moisture is maintained, evapotranspiration is reduced as well as wind erosion.	Direct impact on the crops, pastures and erosion is reduced.	N.A. Fire risk is reduced: livestock helps to fight fire risk as it feeds on dry matter of the undergrowth of the forest.	N.A. The combined system of crops, forest and livestock successfully reduces the deforestation risk.
Integrated pest	The occurrence of	The occurrence of	The	N.A.	N.A.

Activity	Climatic threats addressed				
	Temperature increase	Drought increase	Increase in rainfall intensity	Wildfires	Accelerated deforestation
management.	pests and diseases as a result of climate change is prevented.	pests and diseases as a result of climate change is prevented.	occurrence of pests and diseases as a result of climate change is prevented.		
Crop rotation/diversification	The entire-year production is secured against loss of crops	The entire-year production is secured against loss of crops	The entire-year production is secured against loss of crops	The entire-year production is secured against loss of crops	N.A.
Post-harvesting storage	Post-harvesting losses and poor storage conditions are reduced	Food availability during the dry season.	Food availability during the rainy season.	Post-harvesting losses and poor storage conditions are reduced	
Reservoirs and irrigation systems	N.A.	Production is secured as well as the increase in the number of production cycles per year. Production stability during droughts.	N.A.	N.A.	N.A.
Shade houses	These regulate temperature and reduce soil evapotranspiration and loss of soil due to wind erosion.	Production is secured as well as the increase in the number of production cycles.	Production is protected against impacts	N.A.	N.A.
Credit/micro-credit	Increases adoption of	Increases adoption of	Increases	Increases	Increases

Activity	Climatic threats addressed				
	Temperature increase	Drought increase	Increase in rainfall intensity	Wildfires	Accelerated deforestation
	measures of adaptation to climate change	measures of adaptation to climate change	adoption of measures of adaptation to climate change	adoption of measures of adaptation to climate change	adoption of measures of adaptation to climate change
Technical Assistance	Increases adoption of measures of adaptation to climate change	Increases adoption of measures of adaptation to climate change	Increases adoption of measures of adaptation to climate change	Increases adoption of measures of adaptation to climate change	Increases adoption of measures of adaptation to climate change

Table No. 15. Proposed adaptation activities and their relation to derived ecosystem services and benefits

Activity	Ecosystem services	Benefits for the agricultural production system	Additional Benefits (social, cultural, economic)
Restoration	• Increased levels of nutrient cycling, soil formation and fertility. • Improvement of the water cycle. • Pest and disease regulation • Improved water quantity and quality • Increased tree coverage and improved forest connectivity • Carbon storage	• Protection from extreme climate events • Increased availability of water for irrigation • Less pests and diseases • Reduced soil erosion • Crop pollination secured	• Timber and non timber product availability • More freshwater for human and animal consumption • Improved scenery and generation of investment opportunities centered around it.

Activity	Ecosystem services	Benefits for the agricultural production system	Additional Benefits (social, cultural, economic)
Adaptation of crops to climate variability (seed banks)		• Increased crop resilience before extreme events, pests and diseases. • Food secured during the dry and rainy season. • Food availability and strengthened food security. •	• Decrease in the levels of acute and chronic malnutrition in children of 5 years of age and less, lactating women and the elderly.
Soil conservation: • Zero tillage • Crop rotation/association • Organic fertilizers	• Increased levels of soil moisture retention, structure and fertility • Increased soil biota.	• Increased levels of soil moisture retention, structure and fertility • Increased soil biota. • Erosion prevention • Crop diversification • Increased biomass for animal consumption.	• Improved self-consumption • Generation of surpluses for selling. • Increased food offer for family, community and national consumption. • Improved levels of family, community and national nutrition.
Agro-forestry/Agro-silvopastoral systems	• Increased levels of soil moisture retention, structure and fertility • Increased soil biota. • Carbon storage • Improved nutrient cycling. • Increased biodiversity (undergrowth, lower, medium and upper canopy) • Climate regulation. • Pest and disease regulation	• Increased crop yield • Increased production of milk, meat and weight gain of livestock • Greater food availability for animals during the dry season. • Crop, pastures and animal protection against extreme events (short and medium term) •	• Increased food offer and diversity • Access to forest, food, medicinal and other products. •

Activity	Ecosystem services	Benefits for the agricultural production system	Additional Benefits (social, cultural, economic)
Integrated pest management.	• Improved biological control. • Reduced use of chemicals	• Pest and disease prevention • Secured production for dry seasons. • Reduced pest and disease damage	• Improved producers income • Increased healthy diet
Crop rotation/diversification	• Improved soil structure and fertility	• Diversified food production • Improved soil structure and fertility •	• Increased and varied family diet • Improved nutrition levels
Post-harvesting storage		• Secured production • Post-harvesting losses reduced • Food quality secured	• Market price mitigation and regulation
Reservoirs and irrigation systems		• Access to water during water stress periods • Improved efficiency in water use for production purposes. • Water availability for livestock • Increased number of production cycles per year • Increased crop resilience to climate change	• Improved families' income • Increased production volume per year • Access to differentiated markets
Shade houses		• Reduced losses on account of pests, diseases, winds,	• Improved families' income • Generation of local jobs

Activity	Ecosystem services	Benefits for the agricultural production system	Additional Benefits (social, cultural, economic)
		extreme rainfall • Increased crop yield • Efficient use of soil and water resources • Production intensification • Increased crop resilience • Temperature, shade, moisture regulation	
Credit/micro-credit			• Improved income • Implementation of adaptation measures in production systems • Access to financial and suppliers' markets of materials and inputs.
Technical Assistance			• Improved income • Implementation of adaptation measures in production systems • Access to the market of technical assistance providers.

III. Components

~~a.~~b. Component 1: Innovative financial mechanisms for Ecosystem based Adaptation Measures (EbAM)

The purpose of this component will be to stimulate financing (through Intermediate Financial Institutions or IFI) in favour of Micro, Small, and Medium Sized Enterprises for the adoption of adaptation measures in the face of climate change impacts, based on sustainable management of resources with an ecosystem-based approach in their productive systems. Adaptation measures proposed in this project have been deeply described in the previous section.

Credit will be provided through the Intermediate Financing Institutions (IFI) Network either regulated or not regulated accredited by CABEI. This network, as well as CABEI's experience with intermediated credit, has been described in detail in the background/ context section.

i. Eligibility of MSMEs

Any potential beneficiary MSME may be identified by the IFI or by the programs facilitators of CABEI. In order to provide resources of any program for MSME, the IFI must fill in an eligibility questionnaire containing the selection criteria established by the program. In Addition, it is necessary to validate MSME eligibility in order to requests the disbursement by IFI for such program. It must deliver a Resource Justification Form, better known as F1, which is stored in a database administered by CABEI.

MSMEs will be granted support based on their vulnerability to climate change and appropriateness of the measures proposed in responding to the climate change threats, as well as on their financial capacities. Currently, Resource Justification Form (F1 or eligibility questionnaire) mentioned already includes a significant number of socio-economic variables that help assessing some aspects of beneficiaries' vulnerability. For this project, an Adaptation Specialist will develop a guidance manual with adaptation parameters that will be systematized by CABEI and incorporated in the F1.

Special emphasis will be placed on the potential for creating jobs and on the incorporation of a rights approach (gender, indigenous peoples) aligned with the Adaptation Fund's Environmental and Social Safeguards and CABEI's Environmental and Social Policy.~~In view of the implementation model, and with the purpose of ensuring direct access to MSMEs, previous experience developed under the implementation of CAMBio project will be taken into account. The identification of beneficiaries will be~~

made through mechanisms that will take into account geography, and the implementation within communities and organizations. Such mechanisms will contemplate the gender perspective, interaction among cultures, and generational gaps.

Eligibility for technical assistance:

A manual including instructions on the conditions under which technical and/or business assistance to MSMEs will be provided, will be used. The MSMEs that will be considered will be those interested in developing friendly investments incorporating production practices with an adaptation approach. Technical assistance will as well be provided to financial institutions certified by the BCIE in its network of intermediaries, who support the overall project objective.

Prior to the request by the MSME to the IFI for Technical Assistance, eligibility of its initiative or project shall be checked, through compliance with the requirements listed in the forms designed for this purpose. The results of this eligibility assessment must accompany the application to the IFI.

The IFI will determine based on the manuals and conditions of the project if the initiative submitted by the MSME meets the requirements and has de potential to be viable and feasible. Should it require the submission of an additional study (e.g. pre-investment), the IFI will be responsible for determining its scope and quality.

MSMEs shall submit to the IFI all information necessary to complete the application requirements for technical assistance. The IFI will sent the request to the Coordination for information.

The IFI will approve the request based on project's criteria and will carry out the recruitment and monitoring process. To perform this process, no objection from the project's management unit, based on project's guidelines, will be required.

Tasks related to the disbursement of technical assistance and appropriate follow-up will be ensured.

Eligibility for Bio-bonus

In order to receive this incentive, MSMEs:

- Must have received a loan through mechanisms under Component 1.
- Must have selected at least one EbA indicator at the time of receiving the loan (indicators will be determined during project formulation)
- Must have recorded the parameter to comply with, related to the indicator mentioned above

- ~~Must have met the target set in previous paragraph. Eligible MSMEs will only be awarded one prize per loan.~~

~~MSMEs requesting refinancing of a loan, be it on loan amount or payment period, will not be subject to receiving Bio-bonus.~~

Definition of MSMEs~~.~~

There are some quantitative aspects that officially define MSMEs that vary depending on the country. These are related to number of employees, annual sales, and value of assets. While in Guatemala a medium enterprise has 50 to 199 employees, in Honduras it has 26 to 100 and in Costa Rica 31 to 100; Value of assets of a small enterprise can vary from US$ 62,000 in Guatemala to US$ 250,000 in Costa Rica. However, in order to define Micro, Small and Medium Enterprises, there is a need to go beyond the official/institutional definitions and qualitative variables must be used for targeting due to the characteristics of certain production activities that require greater specialization.

The chart below shows qualitative variables for the definition of the MSMEs proposed by CABEI. The Project will consider these aspects when defining the target MSMEs.

Table No. ~~7~~16 Qualitative variables for the definition of the MSMEs

Establishment	Qualitative aspects
Medium enterprise	Internal division of labour, administrative and accounting controls, meets the legal requirements, more diversified products
Small enterprise	Production processes with some level of technology, greater division of labour without liability, records and accounting controls
Micro enterprise	Low capital-labour relationship, use of simple technology, little division of labour, lack of accounting records

Source: Assessment of MSMEs of five countries in Central America.FINAM. ~~BCIE~~CABEI

In order to attend the MSMEs financial needs across the region, CABEI defines MSMEs as those ~~legalize~~legalized or not legalized enterprises that count from 1 to 100 employees and have financial needs up to US $ 1 million. This definition of MSMEs

includes producers associations and cooperatives if they meet the requirements described above.

In order to ensure that the project is anchored among small-scale farmers, organizations and cooperatives of small-scale farmers will be prioritized over medium-sized enterprises that concentrate the power of ownership in a single individual or a small group of partners.

Prioritized sectors

~~A number of~~ An assessment of vulnerability of agricultural sectors ~~have been identified as priority based on their potential to develop environmentally-friendly businesses that will be~~ will be undertaken during full project proposal development. As an early pre-assessment or screening, most of the sectors that are linked to ~~ecosystem resilience.~~small-scale farmers has a significant level of vulnerability. These sectors are~~:~~

- ~~—~~ related to Coffee ~~agroforestry~~
- and Cocoa agroforestry, agro-ecologic production, silvo
  - ~~**Organic** agriculture~~
  - ~~Silvo~~-pastoral systems
  - ~~Sustainable~~ , eco-tourism
  - ~~Private / community~~ , productive activities developed in protected areas
  - ~~Sustainable~~ or related to forest ~~management~~
- ~~Fisheries~~, artisan fisheries and ~~sustainable~~small-scale aquaculture systems, among others

ii. Activities of Intermediary Financial Institutions (IFIs)

As mentioned in the context/background section, IFIs may be private or public banks, microfinance institutions or cooperatives.

IFIs' activities will include the following:

- Planning for and monitoring the technical aspects of the project, including regular field visits and periodic reporting to CABEI.
- Actively participating in all relevant project activities where appropriate.
- If it is appropriate, adopting, during the course of the project, the systems, programmes and tools developed by the project to ensure sustainability of the project outcomes.

- Play an active role in coordinating with other stakeholders throughout the project and in particular to maintain a close relationship with CABEI Preparation and submission of periodic progress reports, and regular consultations with beneficiaries and contractors.

c. Component 2: Capacity building for the development of production models resilient to climate change.

The purpose of this Component is to provide support through non-refundable resources to the MSMEs that benefit from credits by improving their technical and entrepreneurial capacities to enhance their efficiency and competitiveness through the adoption of adaptation measures. This output will substantially contribute to raising the awareness level of the MSMEs on the needs to adapt to climate change and their concrete measures, under a sustainable management approach regarding natural resources (water, soil, forests and biodiversity), improved technical and production capacity, as well as an improved capacity to do business and access new markets.

Similarly, through technical assistance, the implementation of the adaptation measures detailed in the General Framework sub-section will be promoted direct adaptation measures to hydro-meteorological extreme events.

Technical Assistance modalities will be:

~~However, other~~**2.1 Technical assistance for pre-investment:** support aimed at Micro, Small, Medium and Sized Enterprises (MSMEs) for the performance of studies prior to execution of new investments of adaptation to climate change or for the support of existing investments that call for expansion, diversification or support to access financing.

Aimed at existing clients of the IFI such as potential clients. Consultants from the network of Technical Assistance Providers will be hired depending on the specific needs.

-Final designs
-Environmental analysis
-Financial study
-Accompaniment to the final design of Business Plan to obtain credit

2.2 Capacity building: financial support for initiatives aimed at strengthening capacities on investments oriented to a) ecosystem and agricultural production system adaptation to climate change, and at removing financial obstacles for these sectors; and b) to enhance their technical and entrepreneurial capacities, including technical support and assistance to the associated IFIs.

Aimed at MSMEs which have received credit and at the IFIs which are part of the Global Credit Line. The objective is to create awareness, provide knowledge to the MSMEs and IFIs and support the IFIs in the creation of lines of adaptation to CC. It could be short or long training in ongoing formation modalities.

The proposed activities are summarized hereunder:

2.2.1 Capacity building for MSMEs: managed through sectoral trade associations or IFIs against the proposal presentation.

Topics: Adaptation measures, Organizational capacities, Entrepreneurial, Marketing, Accounting, IT.

2.2.2 Capacity building for IFIs: requested to CABEI against presentation of proposal.

- Adaptation to Climate Change for the internal team of the IFI.

- Construction of programs of adaptation inherent to the IFI (sustainability)

To reinforce the regional aspect, exchanges between project's participants from the 7 participating countries would be promoted. In the same line, advisory will be provided aiming at improving the managerial, accounting, administrative, permitting and marketing aspects.

Furthermore, substantial boost will be given to the development of production chain building, and innovations will be implemented within the production systems, through adaptation measures to climate change impacts based on resource sustainable management with an ecosystem approach.

It will also benefit the teams within financial institutions in the Region, strengthening their capacities for credit analysis, incorporating environmental and social risks issues, financial evaluation of projects, business plans, management of protected areas, certification seals, biodiversity and diversification of the loan portfolio. It is expected that capacity building will have an effect on a larger and more flexible placement of loans, better attention to MSMEs and diversification of their portfolio.

2.3 Visibility

This sub-component will seek to promote visibility of the whole project. The proposed activities are:

2.3.1 Sponsorships: events, courses and conferences are sponsored organized by the IFIs or the organizations/ trade associations and similar, to disseminate adaptation measures.

2.3.2: Events: organized by the CABEI to disseminate knowledge on adaptation measures.

2.3.3: Promotion: Promotion: logo design, publicity, publications in magazines, newspapers, brochures, promotion material, banners on the project, always fostering visibility of Adaptation Fund and CABEI.

The Project will promote the participation of MSMEs in entrepreneurs' meetings, congresses, shows, trade fairs, and business rounds (i.e. Agritrade, Biofach, Biofach America, Hablemos de Café, Hablemos de Roya, Taiwan Tea, Coffee and Wine Expo, among others) for them to promote their products and achieve more access to new selected markets.

Eligibility for technical assistance

As introduced in the previous section, an Ad Hoc Committee, whose composition will be defined during full proposal development, will be established as the decision making body for confirming the assignment of non refundable resources above USD 10,000 (components 2 and 3). Under this amount, the Project Administration Unit (PAU) will approve selections and disbursements.

A manual including instructions on the conditions under which technical and/or business assistance to MSMEs will be provided ~~shall not be excluded, and~~. The MSMEs that will be considered will be those having the greatest needs. Technical assistance will be provided to financial institutions certified by PAU in its network of intermediaries, who support the overall project objective.

MSME's Technical Assistance eligibility of its initiative or project shall be checked by PAU, through compliance with the requirements listed in the forms designed for this purpose.

PAU will determine based on the manuals and conditions of the project if the initiative submitted by the MSME meets the requirements and has the potential to be viable and feasible. Should it require the submission of an additional study (e.g. pre-investment), the PAU will be responsible for determining its scope and quality.

MSMEs shall submit to PAUI all information necessary to complete the application requirements for technical assistance.

PAU will approve the request based on project's criteria and will carry out the recruitment and monitoring process. To perform this process, no objection from the project's administration unit, based on project's guidelines, will be required.

Tasks related to the disbursement of technical assistance and appropriate follow-up will be ensured.

d. Component 3: Incentive scheme to promote Ecosystem-based Adaptation Measures (Adapt-Award).

Incentives will support changing attitudes towards adaptation to climate change with an approach of conservation and sustainable use of natural resources (land, water, forest, biodiversity), through the implementation of adaptation measures on MSMEs productive systems. In addition, the incentives will support IFIs adoption of a green credit mechanism that enhance adaptation measures. The implementation of best practices and improved investments will be favoured. This will promote the generation of businesses willing to prepare themselves to adequately face climate variability, and at the same time preserving natural resources and assets.

The measure proposed by this component consists in the refund of 20% of the loan principal granted by the regulated or non-regulated IFIs (up to USD 10,000). This incentive will be distributed between MSME and IFIs in a percentage of 60% of the refund for the MSME and 40% for the IFI (12% and 8% of the credit amount, respectively). This incentive is to be awarded only after the adaptation measures have been achieved and monitored.

The refund of 12% of total loan will allow the MSME to repay the sum granted to the balance of capital of the credit held with the financial institution. By paying a sum to the balance on the capital total loan, the proportion that each MSME contributes to the capital balance is increased, and the interest deriving from the credit is reduced. Therefore, the MSME pays the credit acquired in less time.

The incentive of 8% of total loan will allow the IFI to repay a sum to the capital total credit to CABEI.

Eligibility for Adapt-Award

In order to receive this incentive, MSMEs

- Must have received a loan through mechanisms under Component 1.
- Must have selected at least one EbA indicator at the time of receiving the loan (indicators will be determined during project formulation)
- Must have recorded the parameter to comply with, related to the indicator mentioned above
- Must have met the target set in previous paragraph. Eligible MSMEs will only be awarded one prize per loan.

MSMEs requesting refinancing of a loan, on loan amount or payment period, will not be subject to receiving Adapt-award.

Micro, small and medium enterprises are a new world for financiers. The businesses are normally run by families, their financing needs are much smaller, fixed investments limited and business based on quick cash flow. Very few formal banks can service this sector.

The region has, however, an established network of successful financial institutions able to cater for a good deal of the needs for business financing for small entrepreneurs. There still exists a vast need for financing for this sector, even if the lending volumes have been growing rapidly. Environmentally friendly activities pose an even larger financing challenge at this moment for micro-enterprises. As the IFIs work close to them and are subject to smaller individual transaction risk they can accept less stringent collateral.

On the other hand, the lending terms are tighter in terms of shorter loan maturities, and are priced high to reflect the high funding and transaction costs. The proposed reward facility, shared by the IFI and the clients after the adaptation measures have been achieved, would act as a de facto interest subsidy. The micro-or small enterprise client could thus afford to service the loan from business proceeds and would be induced to plan the adaptation investment.

On one hand, this incentive would give an incentive to the IFI in order to reduce the level of risk of MSMEs and promoting green credit mechanisms .On the other hand, this incentive act as a boost towards increased spread (i.e. lower funding cost) for the IFI. Increased funding to new clients (and especially to MSMEs with adaptation needs) should be achieved due to the resulting lower price of borrowing for potential clients.

The target setting for the incentive scheme will be set on a case-by-case basis. The selection process, which will be defined during project formulation, shall be competitive and transparent. ~~if they incorporate adaptation measures in their investments.~~ These requirements for granting will be oriented towards good adaptation practices implemented under the focus of the community and not individuals, ensuring that effective monitoring and evaluation procedures have been implemented. An Ad Hoc Committee, whose composition will be defined during full proposal development, will be established as the decision making body for confirming the assignment of non refundable resources above USD 10,000 (components 2 and 3).

IV. Project's gender approach

The gender strategy must be contemplated from the very design of the project actions, through their execution and implementation, and their monitoring and evaluation thereof.

The Gender strategy will entail the permanent consideration of situations of gender inequality, working with different tools at each intervention, action or activity and will develop the means of adjustment or affirmative action to attain equal opportunities for men and women. This entails, also, advice, accompaniment and training activities for technical equipment and decision-makers of the Project, and the organizations and institutions with which the Project is to work.

The aspect of gender is an integral part to the objective of social equality. That is why it is incorporated and applied as a cross-cutting approach, as an analytical instrument and as the subject of research, which allows to account for the inputs and the different demands or needs of men and women. These asymmetries occur in institutions, in organizations and in the development of the field work. Women are an invisible but active part in the production and community work, and a silent contribution to the management of farms and organizations. It is then necessary to question certain cultural touchstones and develop measures aimed at equating opportunities and making efficient endeavors.

Even though the application of instruments and methods for the incorporation of the gender approach will have a different concrete expression depending on each component, next a set of lineaments is defined to be applied across all Project activities.

These relate to:

- Fostering the composition of mixed groups, including men and women in equal proportions.
- Ensuring that men and women, adult and young population actively partake in groups. To such end, promotion actions and specific motivation techniques must be implemented for women to participate, to take part in groups of interest and organizations and of the economic and political decisions in the different spaces of participation and decision-making.
- Guaranteeing that the information and dissemination systems, as well as support materials of the training and technical assistance training of the Project services, are not designed in a sexist language and are free of any stereotyped roles.
- Ensuring that times, frequencies and places of all activities for each component (meeting, workshop, field days, tours, among others) are compatible with women's time availability.

- Implementing systems of child care, so that women may take part in Projects activities in full.
- Training for technical teams related to commercial and management aspects must contain a gender approach, so that they adequately orient their assistance, involve women in the topics, and capitalize on the potential for management and trading by women.
- Technical teams conducting field work must foster the active participation of women in technical assistance activities, must orient technical assistance bearing in mind the individual conducting the task at hand.
- For training in other aspects, such as management, administration, organization, trading, business promotion, etc. these must contain the gender approach and the appropriate methodology to ensure the actual participation and reception of women.
- Approval of plans and/or projects must be subject to the supervision of a gender expert.
- Execution of funds for different objectives of the Project will give priority to the financing of such projects or plans of business submitted by the organizations with a greater number of women as partners and participants of the project submitted.

V. Indigenous People approach

Regarding the specific need of Minorities and Indigenous People, the following activities are proposed:

- Regarding project beneficiaries, this is an open and inclusive Project through which vulnerable rural communities and local organizations can present their own initiatives in order to access credit facilities as well as technical assistance
- The development of the Technical Assistance Instrument/component, will consider the potential beneficiaries' languages and dialects, as well as their contributions and comments during the project formulation phase (socialization process).
- Indigenous People will benefit from technical Assistance through capacity building, which will enable them to develop and execute projects related with climate changes, entrepreneurship based on Eba, taking into account the different cultural and language barriers of the potential beneficiaries.

VI. How the project will take into account non-climatic barriers

Besides barriers related to prices, which are out of the reach of this project, the main non-climatic barriers that have been identified are related, on one side, to access to

credit, access to markets, and lack of sufficient knowledge about adaptation measures: the project will directly address these barriers through its three components.

Another category of barriers, would be related to access to energy, housing or basic education. These could be addressed by the project if related with adaptation considerations; however, CABEI is committed to bring support to the communities in these aspects by articulating with its other programs directed to this kind of issues.

VII. Added value of regional approach

Intermediation as proposed, is characterized by the impact potential. Funds are delivered to a widespread network of financial institutions, which are those having direct relationship with the local MSMEs. This impact is then multiplied by the regional approach: CABEI is a regional Development Bank, with the capacity of massively extend the aim of the project to seven countries where the credit to small agriculture is almost non-existent.

One of the main advantages of the regional approach is that it fosters best practices under standards which show a significant variability among countries. As such, best adaptation and financial practices can be capitalized in the whole region.

Finally, it can be emphasized that El Salvador and Guatemala do not have Adaptation Fund accredited Implementing Entities; this regional proposal is therefore a great opportunity for countries to access AF funds and for the AF to reach these countries. In the case of Costa Rica, it has already used the cap and this is the only way they can continue developing adaptation strategies, and in innovative manners.

B. Describe how the project /programme would promote new and innovative solutions to climate change adaptation, such as new approaches, technologies and mechanisms.

In the region, a major constraint limiting the growth of any small business is the availability of capital. Conservative banking practices have left the agricultural sector with limited financing, due to the high risks associated with its operations. Therefore, barriers in banking and business need to be removed and an enabling environment that catalyses resilient investments in micro-small and medium sized enterprises needs to be created.

Therefore, one of the major innovations of the Project is to reduce the obstacles to credit access on the part of producers: the project is to promote access to lending through financial and non-financial services that will allow to reduce the risk inherent to all production activities; similarly, these systems will be promoted through the network of IFIs that CABEI has across the region. Through this financing, the implementation of

best practices for production and conservation of natural resources (soil, water, forests and biodiversity) will be promoted.

The promotion to **incorporate an adaptive approach to climate change in training**, introducing instruments based on the conservation of ecosystem services for the adaptation to extreme events and climate variability aimed at small scale producers is necessary but still has not been carried out in the region. This training is intended to promote sustainability of the measures favoured by this Project over time.

Also, it is key to **strengthen production chains**: during the project's cycle, producers will be coupled with buyers, benefits and agro-industries interested in the production and trading of environmentally friendly services and goods.

The incorporation of a **gender approach,** as well as visibility of **indigenous peoples' issues** across all activities and project stages is new and poses a challenge for all actors involved, ranging from the executing units to the targeted population itself.

Lastly, the **regional aspect** is worth stressing: even though there are precedents with the above mentioned CAMBio project, this project proposes to overcome the difficulties to reach the most vulnerable producers with emphasis placed on building resilience to climate change. The fact that two more countries have joined the initiative must not be underestimated. This will constitute an invaluable contribution to building resilience in a region where climate change impacts are common and where good or poor practices adopted by the producers of one country may affect the neighbouring country given the short distances between their territories. A good example of this may be the dissemination of some pests or the management of water resource.

C. Describe how the project / programme would provide economic, social and environmental benefits, with particular reference to the most vulnerable communities, and vulnerable groups within communities, including gender considerations. Describe how the project / programme would avoid or mitigate negative impacts, in compliance with the Environmental and Social Policy of the Adaptation Fund.

The project will facilitate access to credit to MSMEs practices that incorporate protection and conservation of natural resources (land, water, forest and biodiversity) in their businesses, products and services. Thus, the importance in which the three pillars, economic, social and environmental, enhance each other becomes undoubted.

Please find below a first screening of the economic, social and environmental benefits that project's activities will provide.

Economic benefits	Social benefits	Environmental benefits
• Further increases in household incomes as a result of improved adaptation measures and diversified livelihoods. • Generation of rural employment • Development of environmentally sustainable business allows entry to new business niches. • Increased financial stability during times of extreme events • Increased competitiveness • Sustained and resilient production yields comparable to conventional agricultural approaches. • Increased forest services and soil carbon. • Increased capacity for developing and implementing efficient adaptation approaches to climate change leads to protection of property and farmer's incomes. • Gender perspective promoted by the project will enhance self-consumption, generation of small-scale income and the care of the family production unit. • Increased capacity for developing and implementing efficient adaptation approaches to climate change that lead to protection of property	• Increase in agricultural yields and income will improve living conditions of the small farmers. • Enhanced resilience and preserved landscapes promote the roots of communities. • Food supply will be enhanced. • Increased potential for agriculture diversification. • Increased skills focused on climate change adaptation approaches. • Increased gender equality and representation by women within community structures. • Participatory processes enhance local capacity of coming together and making collective decisions. Social cohesion. • Increased capacity for developing and implementing efficient adaptation approaches to climate change • Incorporation of gender and indigenous perspective.	• Increased maintenance and provisioning of ecosystem services such as carbon sinks, water flow regulation, erosion control, pollination and soil fertility. • Load on land diminished, contributing to strengthen the carbon and essential nutrients cycles. • Avoid erosion risks upon the occurrence of heavy rain that causes the decapitation of the surface horizon and the exposure of low permeability layers and less content of organic matter • Enhanced carbon sequestration contributing to mitigation of climate change. • Increased forest and crop species diversity creating resilience to climate change and sustained ecosystem functioning and services. • Increased knowledge and awareness about climate change and its impacts will help create consciousness on environment protection.

and farmer's incomes. • Access to credit and promoting green credit products. • Regional partnerships will be established to promote environmentally friendly business in the countries, such as Central American Commission on Environment and Development (CCAD), Cleaner Production Centers, among others.		

D. Describe or provide an analysis of the cost-effectiveness of the proposed project / programme and explain how the regional approach would support cost-effectiveness.

The cost-effectiveness of the proposed Project relies on many factors, mainly related to the cost-effectiveness inherent to the Ecosystem based Adaptation approach, and to the participation mechanisms that will be undertaken during the project.

The selected adaptive measures contained in the project consist mainly of a series of activities that will strengthen ecosystem services and achieve resiliency in food production systems as a means to reduce the vulnerability of rural communities. This has multiple benefits that will greatly exceed the costs in the short, medium and long term.

Although detailed estimates for the project have not been done at this stage, if we consider the **cost of production/productivity losses** due to climatic events and we take into account that the technologies and practices proposed in this project are low-cost, adapted to the reality of MSMES, constructed from local knowledge, strengthening production systems in the long term, catalysing new business and job creation, cost-effectiveness is demonstrated.

Resilience to multiple pressures: as emphasized by UNEP/SEI, EbA pathways result from the combination of ecosystem management strategies supported by flexible mechanisms and enabled through adaptive processes. Management of ecosystems within interlinked social-ecological systems will enhance ecological processes and services, essential for resilience to multiple pressures.

Stakeholder participation at all project levels will contribute to the cost-effectiveness of the project. Participation will ensure adequate planning and implementation of activities in line with the project objectives and with the local development and stakeholder priorities, as well as complementarity with ongoing and planned programs and projects. At field level the project will benefit from the experiences and knowledge of MSMEs, farmers, indigenous peoples, NGOs, and other institutions.

The regional approach is key to bring communities and financial institutions to learn much more that in a scenario of isolated adaptation projects. There are many activities through which exchanges between countries will be undertaken, whether as a consequence of results dissemination, or as a product from the Capacity Building Component, that will connect MSMEs from the different countries in sectorial events or event trainings designed especially for the purpose of sharing adaptation experiences. One of the main benefits of this regional approach is the possibility of connecting MSMEs which may be otherwise isolated by geography or lack of resources.

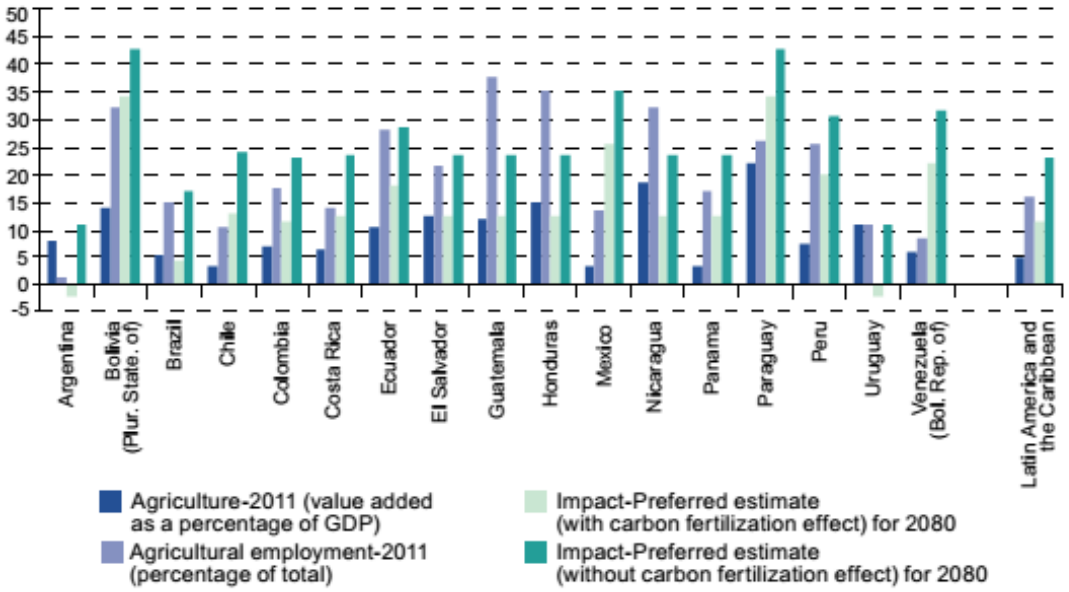
In order to generally support the concepts about cost-effectiveness of the project components, the following data, extracted from *The economics of climate change in Latin America and the Caribbean* report developed by ECLAC[27], have been taken as a reference.

The expected impacts of climate change are significant and they will vary strikingly across countries in line with the importance of the farming sector in the different economies and with varying socioeconomic and climatic conditions.

[27] The economics of climate change in Latin America and the Caribbean Paradoxes and challenges of sustainable development

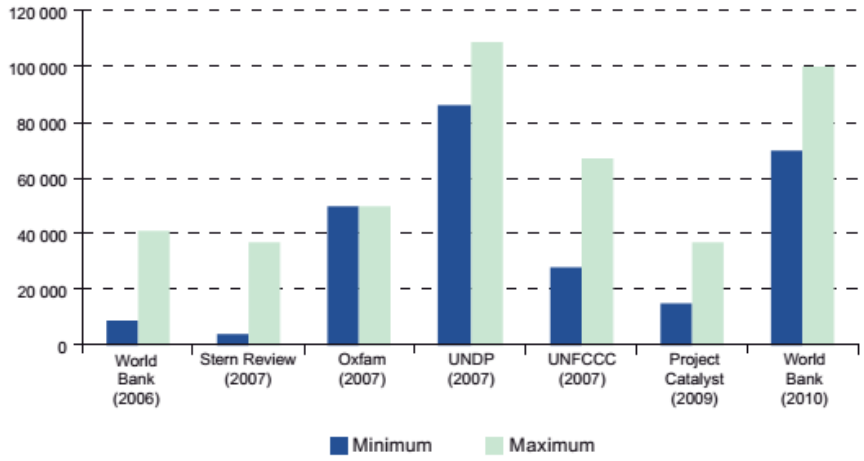
Latin America: the agriculture sector and the impacts of climate change, 2011 and 2080 [a]

(Percentages)



In general, the estimated global costs of adaptation represent less than 0.5% of GDP, and the World Bank (2010c) estimates that the economic costs of adaptation will represent 0.2% of the projected GDP for developing countries for this decade. These costs are expected to fall to 0.12% for the period 2040-2049, while, for South-east Asia, they are projected at over 0.5% for 2020-2029 (World Bank, 2010c). As these are conservative estimates, in all probability the final costs will be higher (Parry and others, 2009).

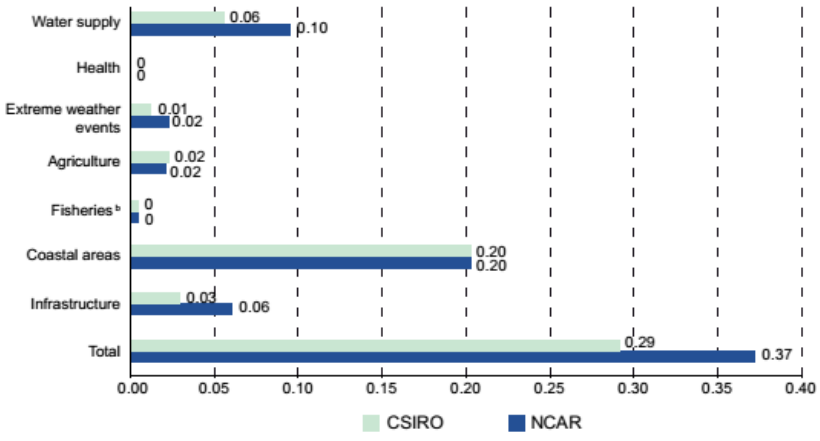
Figure No. 16 Developing countries estimated adaptation costs (millions of dollars per year)



The adaptation costs estimated for the Latin American and Caribbean region are below 0.5% of the region's current GDP, although these estimates entail a high level of uncertainty and will very probably increase (World Bank, 2010c; Vergara and others, 2013) (see Figure No. 16). The World Bank estimates that adaptation costs in agriculture, water resources, infrastructure, coastal zones, health, extreme weather events and fisheries will be below 0.3% of the region's GDP (between US$ 16.8 and US$ 21.5 billion per year up to 2050 (World Bank, 2010b). Agrawala and others (2010) estimate the region's adaptation costs for irrigation, water resource infrastructure, coastal protection, early warning systems, investments in climate-resistant housing, cooling and refrigeration, the treatment of illnesses and research and development to be around 0.24% of regional GDP. The United Nations framework Convention on Climate Change (UNFCCC, 2007) believes that the investments and financial flows needed to forestall the impacts of climate change in the region between now and 2030 will amount to approximately US$ 23 billion for the water resources sector and between US$ 405 million and US$ 1.726 billion for additional infrastructure. Investment in coastal protection will also be required, and is estimated at between US$ 570 million and US$ 680 million or around 0.2% of regional GDP (see Figure No. 17).

The estimates that have been prepared so far for adaptation costs in Latin America are thus based mainly on providing protection for coastal zones, agricultural activities and water resources (i.e. "hard adaptation measures"). However, there are many other types of costs that have yet to be identified. Nonetheless, the available evidence demonstrates that implementing adaptation processes makes economic sense where they can help to reduce some of the other higher —and in some cases unavoidable and irreversible— economic costs of climate change.

Figure No. 17 Latin America and the Caribbean: annual costs of adaptation, to 20150 (Percentages of regional GDP)



There is still some uncertainty about what the results of these processes will be, but they may help to reduce the economic costs of climate change considerably and may even generate additional economic gains (Agrawala and others, 2010; Tan and Shibasaki, 2003; Bosello, Carraro and De Cian, 2010; Rosenzweig and Parry, 1994).

The evidence indicates that adaptation is a complex, heterogeneous process that is difficult to gauge accurately, since it involves non-linear patterns and generates unequal and uncertain costs from one region to the next. There is already a wide range of cost-effective options that can significantly reduce the economic, social and environmental costs of climate change and that bring considerable side-benefits, such as promoting energy efficiency, improving the health care, and reducing deforestation and air pollution. The fact remains, however, that these adaptive measures do have some limitations and can therefore not prevent some of the residual —and irreversible— damage associated with climate change. Some of the available options will prove to be inefficient because they will cause significant collateral damage. Furthermore, there are institutional, technological and resource barriers that will hinder the implementation of some suitable adaptive measures, and cases where the market may not be able to interpret some of these measures correctly. For example, a sustained change in mean temperatures that is believed to be temporary may lead to the over-use of water resources that will have adverse consequences in the future. (Easterling and others, 1993; Bosello, Carraro and De Cian, 2010; Fankhauser, 1995; Rosenzweig and Parry, 1994; Darwin and others, 1995; Galindo, Reyes and Caballero, 2014).

Be that as it may, current conditions underscore the importance and the economic advantages of planning and implementing adaptive processes, including a range of flexible measures that may help improve risk management in the context of sustainable development. This kind of adaptive strategy for reducing the most negative and irreversible impacts of climate change can be implemented without waiting for agreement on a global programme to deal with climate change (Bosello, Carraro and De Cian, 2010). Adaptive measures should consider both preventive and corrective measures for forestalling extreme, irreversible types of damage in order to protect the most vulnerable sectors of the population and the region's natural assets, along with actions that will yield an array of added benefits (improvements in health, social security and energy efficiency, reductions in air pollution and deforestation) while avoiding inefficient forms of adaptation. All of this will entail a transition to a sustainable form of development (World Bank, 2008). Sustainable development processes directed along a path of equality and low-carbon growth will require the concurrent implementation of interconnected processes for supporting adaptation to, and the mitigation of, climate change (IPCC, 2014b). This means that the outcomes of adaptation processes will hinge upon mitigation processes, while, at the same time, adaptation processes contribute towards mitigation.

E. Describe how the project / programme is consistent with national or sub-national sustainable development strategies, including, where appropriate, national or sub-national development plans, poverty reduction strategies, national communications, or national adaptation programs of action, or other relevant instruments, where they exist. If applicable, please refer to relevant regional plans and strategies where they exist.

The project is a result of the preparation of environmental plans in Central America. During the process of constructing the Environmental Plan for the Central American Region (PARCA, Spanish acronym), the Mesoamerican Biological Corridor (MBC) was the backbone for forest and biodiversity conservation. In this approach, traditional conservation activities in protected areas are complemented with sustainable productive activities in areas of interconnection, considered vital for biodiversity and the livelihood of rural populations. According to the CBM rationale, these areas of interconnection are private lands (individual or collective) that support the economy of millions of people and agroforestry practices and forest plantations play a key role in their sustainability.

Likewise, the Project is aligned with the 2008-2017 Central American Agricultural Policy (PACA), approved by the Council of Ministries of the CAC and Heads of State and Government of the Countries of the Central American Integration System (SICA), on October 19 and December 12, 2007, respectively, as the "key instrument to strengthen regional integration, competitiveness of the agricultural sector, regional food security, and to favour greater access by small and medium sized producers to the benefits of regional integration and private-public collaboration".

In addition, such initiative is aligned with the 2009-2024 Regional Strategy on Agro-Environment and Health (ERAS), the purpose of which is to build a mainstreaming approach model in socio-economic and environmental management of the Central American region; the 2010-2030 Central American Strategy for Rural Territorial Development (ECADERT), the purpose of which is to respond to the needs of attaining an integrated development of rural territories, while keeping the cultural identity of its inhabitants and communities; the 2010 Regional Strategy of Climate Change (ERCC), based on the implementation of actions directed at safeguarding the natural heritage, the biodiversity, the multiple cultures and the diversity in the face of the threats that pose Climate Change, as well as seize the opportunities to reverse the accumulated social deficits and improve the populations' life quality.

I. Central America

~~I.~~II. ~~Beneficiaries' countries adaptation strategies.~~

~~Beneficiary countries existing plans and Adaptation strategies are included below, with the purpose to demonstrate the consistency of the project with National strategies.~~

i. 1. El Salvador: National Climate Change Plan.

In El Salvador, the National Climate Change Plan (PNCC) is a key instrument for the equitable application of the United Nations Framework Convention on Climate Change (UNFCCC), since it will allow generating information for the building up of evidence on impacts from climate change on the territory. It will ensure consistency with national objectives of development project and country's climate actions, while promoting Monitoring, Reporting and Verification (MRV) systems capable of showing results, efficiency and transparency in the use of resources. It will enable to build an institutional architecture necessary for financing and technologies management, and it will provide the opportunity for the alignment with international policies in matters of trade, technology and intellectual property, sustainable development, cooperation and migration, among others.

The PNCC of El Salvador has 8 outputs. Outputs 2, 3 and 4, listed below, are directly aligned with outputs 1 and 2 of this project.

Output 2. Program of protection of public finances and reduction of loss and damage associated with the adverse effects of climate change.
Output 3. Program of biodiversity and ecosystem management for the adaptation to and mitigation of climate change.
Output 4. Program of transformation and diversification of agricultural, forestry and agro forestry practices and activities.

i. 2. Costa Rica's National Climate Change Strategy (ENCC) Action Plan.

The express objective of the ENCC, described herein below, matches the project's objectives, as it seeks to adapt human activities based on ecosystem services.

Reduce social, environmental and economic impacts of Climate Change (CC) and capitalize opportunities, while promoting sustainable development through the economic growth, social progress and the environmental protection via initiatives of mitigation and adaptive actions so that Costa Rica will improve the life quality of its inhabitants and its ecosystems, by moving towards a low carbon emission, and competitive, economy by 2021. This shared responsibility shall be performed through the development of capacities and the legitimacy to influence both the National and International Agenda.

The PA of the ENCC has two objectives, in terms of adaptation, which also show the consistency with the project's objectives.

Specific Objective 1: Enhance the adaptive capacity of the communities and ecosystems most vulnerable to the impacts of Climate Change on water resources.
Specific Objective 2: Reduce vulnerability of women and men agricultural producers in the face of the impacts of CC.

3. Plan for Adaptation to Climate Variability and change in the Agricultural, Forestry and Fishing Sectors in Nicaragua.

Adaptation to climate change in agricultural, forestry and fishing sectors has been designed as a strategic instrument that will contribute to the strengthening of the production capacity of such sectors and of such producers with a 20-year horizon. Also, in light of the present day drought scenario, it has been deemed convenient to have a strategic view in the short term focusing on providing answer to the family producer's requirements from 26 municipalities with greatest economic, social and environmental vulnerability, located in very dry areas on slope sides.

Since year 2010, Nicaragua has had the National Environmental Climate Change Strategy (ENACC) and its Plan of Action (2010-2015). This strategy, spearheaded by the Ministry of Environment and Natural Resources (MARENA), constitutes the general framework for the adaptation to climate change and comprises five strategic lines, described below: 1-Environmental Education for Living; 2-Environmental Defense and Protection of Natural Resources; 3-Conservation, Recovery, Catchment and Harvesting of Water; 4 – Mitigation, Adaptation and Risk Management in the face of Climate Change; 5 - Land Sustainable Management.

4. Law on Climate Change – Guatemala.

The law enacted on September 9, 2013, provides the need for a plan of action for adaptation and mitigation in the face of climate change, expressly stating that one of the adaptive measures or actions should be instrumenting financial tools to help comply with adaptive actions or biodiversity conservation.

5. Law and Action Plan for Adaptation to Climate Change in Honduras

The Republic of Honduras deems adaptation to climate change a top priority to reduce the country's vulnerability. There are opportunities to promote mitigation measures and actions that also enhance the adaptive capacity of its population and of its natural and production systems. All of the above is expressed in the General Law on Climate Change and in the National Strategy on Climate Change that describes actions and

plans to protect, preserve, and restore marine coastal ecosystems, and land ecosystems, and their biodiversity; integrated risk management; and sectorial vulnerability.

6.i. Panama National Climate Change Strategy

Its mission is to *promote the transformation of Panama's development model addressing adverse climate change effects through policies, plans and projects of adaptation and mitigation.*
One of the lines of actions leading to meet this objective is to reduce vulnerability of the communities with the highest exposure to adverse climate change effects through financial instruments and specific national funds for adaptation to climate change.

7. National Strategy for Adaptation to Climate Change in the agricultural sector Dominican Republic 2014-2020

General Strategic Objective (precondition for change): Reducing vulnerability to climate change in the agricultural sector of the Dominican Republic, adopting policies and adaptation measures that support food security of the population and promote low carbon development. The strategic objectives are:

- Improve the capacity of the agricultural sector to adapt to climate change and establish a consistent policy framework at the national level.
- Build resilience and adaptive capacity within the sector.
- Help the Dominican Government on the establishment of a regulatory framework for small and medium producers that covers research and development, and promotes techniques of adaptation to climate change with a climate smart agriculture approach.
- Raise awareness on adaptation techniques

II. Agriculture and environment.

Supplementing the economic integration process, the bonds between the environmental and the agricultural sectors have grown stronger over the last years. The collective drafting of an inter-sectorial agenda between the Council of Agricultural Ministries (CAC) and the Council of Environmental Ministries (CCAD) was the springboard for this process, which has become consolidated with the participation of the Central American Ministries of Health. In June 2006, the preparation of the Regional Strategy for the Agro-Environment (ERAS) was agreed upon. This Strategy addresses topics related to land

sustainable management (water and forest resource management, land planning), climate change, biodiversity and green businesses, among other aspects.

In this regard, the 2010-2030 Central American Strategy of Territorial Rural Development (ECADERT) is the answer to a need of Central American societies to overcome structural obstacles for a sustainable and inclusive national development. To such end, the integrated development of rural territories is paramount. Territories, as socio-geographical spaces historically constructed, are associated with a specific cultural identity of its inhabitants and communities.

This Strategy arises from the urgency for strengthening creative and innovating capacities of the rural population, public institutions and organizations of the civil society in the Region's territories, to establish inclusive mechanisms that allow access to development leading to social and territorial cohesion. That is the ultimate purpose of ECADERT.

The Central American Agricultural Policy (PACA) favors free trade. This poses multiple challenges to the agricultural sector in its traditional role of supplier of raw material and food. These challenges include, among others: the demand for secure and quality food; a higher level of competition, both at international and regional markets; value concentration in the trading links closer to the final consumer in the chain of agro-production; the new technology development based on IT and communication, and on the development of knowledge; the defense and strengthening of the region's sanitary and phytosanitary assets; and a stronger commitment with environment preservation.

The 2012-2032 Food and Nutrition Security Policy for Central America and the Dominican Republic stems from the efforts of the Government members and the Institutions of the Central American Integration System to ensure Food and Nutrition Security of the population. To such end, principles have been established consistent with the project's outputs, mainly the Sustainability principle. Such promotes regional actions in benefit of the development of a food and nutrition system that is sustainable in political, economic, social, cultural, educational and environmental terms.

III. Beneficiaries' countries adaptation strategies.

Beneficiary countries existing plans and Adaptation strategies are included below, with the purpose to demonstrate the consistency of the project with National strategies.

1. Guatemala.

i. Law on Climate Change

The law enacted on September 9, 2013, provides the need for a plan of action for adaptation and mitigation in the face of climate change, expressly stating that one of the adaptive measures or actions should be instrumenting financial tools to help comply with adaptive actions or biodiversity conservation.

ii. Nationally Determined Contribution to the Mitigation of Climate Change (NDC) before the United Nations Framework Convention on Climate Change (UNFCCC).

The Government of Guatemala, through several national instruments, promotes and proposes reduction of vulnerability and improvement of adaptation processes all across key sectors; by prioritizing the strengthening of adaptation processes.

As regards agriculture and food security, the crop monitoring system coordinated among the government and private sector programs, focused on nutritional food security, together with international agencies, gives priority to those actions with a direct effect in food production, mainly for self-consumption and subsistence in top priority areas. The largest portion of the population is connected to the agricultural sector and there is the need to provide producers with the necessary tools and technology to cope with climate change and variability in the sector, promoting best adaptation practices fostering the adjustment of the agro-productive systems to the changing scenario of the climate and its derivatives.

iii. Integrated Coastal Area Management Plan of Guatemala (Governmental Agreement 328-2009).

The plan contemplates the climate change variable and is consistent with the National Policy of Climate Change for the protection of marine-coastal ecosystems.

iv. National Strategy of Biological Diversity (2012-2022)

This strategy promotes the integration of biological diversity in the adaptation to and mitigation of climate change, as well as the appreciation of traditional knowledge of indigenous peoples, by acknowledging the role played by the indigenous and *campesino* economic models, culturally pertinent in the adaptation to climate change.

v. 2032 K'atun National Development Plan

The National Development Plan: *K'atun, Nuestra Guatemala 2032* incorporates the notion of sustainability and resilience in social, economic, and environmental terms; the promotion of social equality; the respect for cultural plurality and the defense of human rights; and the consolidation of democracy, highlighting the importance of citizens' freedom and participation in the management to improve living conditions and production capacities of the population.

One of the main development focus of the plan is Natural Resources today and onwards (chapter thirteen). This chapter proposes that sustainable development cannot be thought of without appropriate environment and natural resources management. There is no room for sound economies, sustainable societies or healthy population in countries where the environment and the natural resources are not respected and protected. This focus stresses the need to protect and enhance natural resources in a healthy balance with social, cultural, economic and territorial development, allowing to meet the current and future demands of the population in conditions of sustainability and resilience, especially in the face of the impact of phenomena currently posed by nature.

2. El Salvador

ii. National Climate Change Plan.

In El Salvador, the National Climate Change Plan (PNCC) is a key instrument for the equitable application of the United Nations Framework Convention on Climate Change (UNFCCC), since it will allow generating information for the building up of evidence on impacts from climate change on the territory. It will ensure consistency with national objectives of development project and country's climate actions, while promoting Monitoring, Reporting and Verification (MRV) systems capable of showing results, efficiency and transparency in the use of resources. It will enable to build an institutional architecture necessary for financing and technologies management, and it will provide the opportunity for the alignment with international policies in matters of trade, technology and intellectual property, sustainable development, cooperation and migration, among others.

The PNCC of El Salvador has 8 outputs. Outputs 2, 3 and 4, listed below, are directly aligned with outputs 1 and 2 of this project.

Output 2. Program of protection of public finances and reduction of loss and damage associated with the adverse effects of climate change.
Output 3. Program of biodiversity and ecosystem management for the adaptation to and mitigation of climate change.

Output 4. Program of transformation and diversification of agricultural, forestry and agro-forestry practices and activities.

iii. Nationally Determined Contribution to the Mitigation of Climate Change (NDC) before the United Nations Framework Convention on Climate Change (UNFCCC).

Given the weight of the agricultural sector in El Salvador's economy and in water and food security, and given the need for reducing vulnerability thereof in the face of climate change, urgent actions are required for such sectors to continue to be economically viable under the anticipated climate change scenarios. The purpose of this contribution is to reduce vulnerability of the sectors and the adaptation to climate change, and to promote the mitigation associated co-benefits.

By 2030, El Salvador will have established and managed one million hectares through "Sustainable and Resilient Landscapes to Climate Change". This is an integral approach to landscape restoration, whereby wood areas will be reclaimed and preserved, biological corridors will be established through the adoption of resilient agro-forestry systems, and agricultural areas will be transformed through low-carbon, sustainable practices, aiming at Land Degradation Neutrality. In this context, the current tree coverage will be preserved - 27% of the territory - maintaining the natural areas, including the existing mangroves, agro-forestry systems and forest plantations. Also, carbon forest sinks will be improved, by increasing woodland coverage in 25% of the territory, with agro-forestry systems and reforesting activities in critical areas, such as gallery forests, areas of aquifer recharge and areas prone to landslides. For the fulfillment of such goals, the necessary means of implementation beyond the reach of the national finances will be established.

iv. 2014-2019 Five-Year Development Plan

The plan adopts the Good Life rationale as national value, course and horizon, which demands a different way of understanding and making public policies. It entails that the State institutions will have to plan and implement their interventions seeking to fulfill the following commitments: (a) prioritize the protection of people's lives and ensure the conditions for people's development throughout their life cycle; (b) progressively reduce gender inequalities to attain an egalitarian and equal society that provides opportunities for women and men, and in which their specific needs and interests are acknowledged; (c) diversify production and economic reproduction forms and relations, giving human labor the importance it deserves; (d) revalue and celebrate intercultural reality and diversity of livelihoods and knowledge; (e) highlight the importance of the territory as a space of creation, reproduction, production and co-existence of the community; (f) recover the social-community fabric and strengthen peaceful coexistence processes; (g)

establish inclusion and dialog processes to reach common grounds on what it means to have community well-being; (h) acknowledge the importance of nature and move towards a responsible type of management, which is respectful of the natural resources.

3. Honduras

i. Law and Action Plan for Adaptation to Climate Change

The Republic of Honduras deems adaptation to climate change a top priority to reduce the country's vulnerability. There are opportunities to promote mitigation measures and actions that also enhance the adaptive capacity of its population and of its natural and production systems. All of the above is expressed in the General Law on Climate Change and in the National Strategy on Climate Change that describes actions and plans to protect, preserve, and restore marine coastal ecosystems, and land ecosystems, and their biodiversity; integrated risk management; and sectorial vulnerability.

ii. Nationally Determined Contribution to the Mitigation of Climate Change (NDC) before the United Nations Framework Convention on Climate Change (UNFCCC).

The agri-food sector has prioritized adaptation measures such as the implantation of "Quesungual" agro-forestry systems, which promotes less use of fertilizers; the use of slow-absorption organic fertilizers; changes in the calendar of crops; incentives to produce introduced seeds adapted to local conditions; introduction of insect-repealing plants in consolidated crops; modification or abatement of inappropriate agricultural burning practices; measures to fight erosion; programs of low volume irrigation in slope agriculture practice; practices of biological control of pests and diseases; development of organic fertilization systems; and promotion of incentives for organic agricultural production, including tax and financial incentives.

iii. Law of Agro-forestry for Rural Development

Pending approval, it articulates the public policy in several paramount focuses oriented to a low-carbon development resistant to the effects of climate change promoting adaptation and bringing co-benefits to the population.

4. Nicaragua

i. Plan for Adaptation to Climate Variability and change in the Agricultural, Forestry and Fishing Sectors

Adaptation to climate change in agricultural, forestry and fishing sectors has been designed as a strategic instrument that will contribute to the strengthening of the production capacity of such sectors and of such producers with a 20-year horizon. Also, in light of the present-day drought scenario, it has been deemed convenient to have a strategic view in the short term focusing on providing answer to the family producer's requirements from 26 municipalities with greatest economic, social and environmental vulnerability, located in very dry areas on slope sides.

ii. National Environmental Climate Change Strategy (ENACC)

Since year 2010, Nicaragua has had the National Environmental Climate Change Strategy (ENACC) and its Plan of Action (2010-2015). This strategy, spearheaded by the Ministry of Environment and Natural Resources (MARENA), constitutes the general framework for the adaptation to climate change and comprises five strategic lines, described below: 1-Environmental Education for Living; 2-Environmental Defense and Protection of Natural Resources; 3-Conservation, Recovery, Catchment and Harvesting of Water; 4 - Mitigation, Adaptation and Risk Management in the face of Climate Change; 5 - Land Sustainable Management.

iii. 2012-2016 National Human Development Plan

The plan is based upon 12 premises, 2 of which state the project's alignment with the national policy for Human Development. These are: 10. Strengthening of the production sector prioritizing family, community and cooperative economy and food sovereignty and security; 12. Protection of Mother Earth and adaptation to climate change.

5. Costa Rica

ii. National Climate Change Strategy (ENCC) Action Plan.

The express objective of the ENCC, described herein below, matches the project's objectives, as it seeks to adapt human activities based on ecosystem services.

Reduce social, environmental and economic impacts of Climate Change (CC) and capitalize opportunities, while promoting sustainable development through the economic growth, social progress and the environmental protection via initiatives of mitigation and adaptive actions so that Costa Rica will improve the life quality of its inhabitants and its ecosystems, by moving towards a low carbon emission, and competitive, economy by

2021. This shared responsibility shall be performed through the development of capacities and the legitimacy to influence both the National and International Agenda.

The PA of the ENCC has two objectives, in terms of adaptation, which also show the consistency with the project's objectives.

Specific Objective 1: Enhance the adaptive capacity of the communities and ecosystems most vulnerable to the impacts of Climate Change on water resources.
Specific Objective 2: Reduce vulnerability of women and men agricultural producers in the face of the impacts of CC.

iii. Intended nationally determined contribution- September 2015

Costa Rica has included an Adaptation to Climate Change component in its National Contribution, with clear commitments for 2030. The country is currently designing a road map for its National Adaptation Plan, and is committed to develop it before 2018. The country will continue with its Green and Inclusive Development policy through local actions in adaptation, such as, inter alia, the strengthening of conservation programs and expanding the environmental services payments program to include Ecosystem based Adaptation.

iv. 2015-2018 National Development Plan - November 2014

The purpose of this plan is to impact competitiveness, economic growth, production chains, strength qualified labor, and diversify sources capable of generating wealth at national and territorial levels. "*Such conditions, alongside environmental sustainability and risk management, equality and social inclusion would point us in the direction of a thriving and fair society*".

6. Panama

~~7.~~ii. National Climate Change Strategy

Its mission is to *promote the transformation of Panama's development model addressing adverse climate change effects through policies, plans and projects of adaptation and mitigation.*

One of the lines of actions leading to meet this objective is to reduce vulnerability of the communities with the highest exposure to adverse climate change effects through financial instruments and specific national funds for adaptation to climate change.

iii. Nationally Determined Contribution to the Mitigation of Climate Change (NDC) of the Panama Republic before the United Nations Framework Convention on Climate Change (UNFCCC).

The country's lines of action in the face of the challenges posed by climate change center around institutional strengthening; diversification of energy matrix; management and restoration of drainage basins; biodiversity protection, conservation and management; the building of treatment plants for solid waste in order to do away with open dumps; the development of mass public transport systems that are energy efficient; and the reforestation of 1,000,000 hectares during the next 20 years. The working focus outlines a set of actions which, based on the national circumstances, will allow Panama to responsibly contribute to the achievement of the UNFCCC ultimate purpose and decrease its vulnerability in the face of the adverse effects of climate change, by prioritizing and implementing specific adaptation measures.

iv. Governmental Strategic Plan (PEG) for 2015-2019

Under the PEG economic and social strategy, we must stress the importance of giving a stronger support to sectors driving growth and inclusion, among which there is the forestry sector, currently lagging, but which, however, has huge potential to make a difference from the economic and social viewpoints.

Under the sphere of the PEG as regards the environmental sector, the loss of native woodland is deemed as one of the main problems affecting the country. Therefore, the PEG prescribes, among other measures, "to consider the battle against climate change and its effects as a fundamental focus of the governmental action, by stopping deforestation and restoring the vegetative cover to prevent desertification and by reducing the existing vulnerability through the development and application of adaptation and mitigation measures".

v. Integrated Development Plan for Aboriginal Peoples of Panama.

Under this initiative, the following actions will take place: the formulation of human development plans for indigenous peoples with participation of political actors; the creation of a space for discussion of indigenous affairs capable of monitoring the progress made in the human development plans, and also operating as mechanism for conflict prevention in order to reduce poverty and close the inequality gap; the creation of political and technical capabilities for negotiation and political incidence; and the promotion of access to information by the indigenous communities to improve participation in decision-making processes.

7. Dominican Republic

i. National Strategy for Adaptation to Climate Change in the agricultural sector Dominican Republic 2014-2020

General Strategic Objective (precondition for change): Reducing vulnerability to climate change in the agricultural sector of the Dominican Republic, adopting policies and adaptation measures that support food security of the population and promote low carbon development. The strategic objectives are:

- Improve the capacity of the agricultural sector to adapt to climate change and establish a consistent policy framework at the national level.
- Build resilience and adaptive capacity within the sector.
- Help the Dominican Government on the establishment of a regulatory framework for small and medium producers that covers research and development, and promotes techniques of adaptation to climate change with a climate-smart agriculture approach.
- Raise awareness on adaptation techniques

ii. Nationally Determined Contribution to the Mitigation of Climate Change (NDC) of the Dominican Republic before the United Nations Framework Convention on Climate Change (UNFCCC).

In the Dominican Republic, adaptation is a constitutional-ranking priority. The sectors identified as the most vulnerable are: Water for Human Consumption, Power for the National System of Protected Areas, Human Settlements and Tourism.

To strengthen Human Resources and the capacity to move towards a green development, with low emissions and climatic resilience, the needs for financing are identified in excess of yearly USD 1.5 Billion for projects of Higher, Technical and Specialized Education.

iii. 2010-2020 Sectoral Strategic Plan of Agricultural Development

This plan encompasses the following four (4) strategic focuses and two (2) cross-cutting focuses.

Strategic focuses: 1) Institutionalization and/or consolidation of the reform and modernization process of the agricultural sector. 2) Productivity and competitiveness of the agricultural sector and promotion of agro-exports. 3) Strengthening of the production

of items for domestic consumption and of the mechanisms of domestic trading. 4) Development of rural and service infrastructure, catalysts for poverty reduction, with a territorial approach.

Cross-cutting focuses: 1) Agro-ecological sustainability, 2) Social equality in the rural medium.

iv. Law 1-12. 2013 National development strategies

Section 10. Fourth Focus, seeking for an Environmentally Sustainable Production and Consumption Society Adaptive to Climate Change. "A society with a habit of producing and consuming in a sustainable manner, capable of managing risks fairly and successfully, of protecting the environment and natural resources, and of promoting an appropriate adaptation to climate change."

Section 11 Human Rights - All plans, programs, projects and public policies shall incorporate a human rights approach in their relevant spheres of actions in order to identify situations of rights vulnerability, of discrimination or of exclusion of vulnerable groups of the population and in order to adopt actions contributing to social equality and cohesion.

Section 12 Gender Approach - All plans, programs, projects and public policies shall incorporate a gender perspective in their relevant spheres of actions, in order to identify potential situations of sex-based discrimination and to adopt actions to guarantee gender equality.

Section 13 Environmental Sustainability - All plans, programs, projects and public policies shall incorporate criteria of environmental sustainability and appropriate integrated risk management

IV. CABEI's Institutional Alignment.

To actually prioritize the investments anticipated by this initiative, it will be necessary to guarantee an institutional alignment. For this reason, the project at hand is directly connected to CABEI's Institutional Strategy and its Country's Strategy, which are planning instruments aligning each country's particular concerns with CABEI's concerns.

In this regard, from CABEI's strategy, it can be derived that environmental sustainability is a strategic objective and is a part to its development policies for the region. In countries less developed, this problem is more severe, as there is a direct relation between poverty levels and degradation of natural resources and the environment. That

is why it is important to acknowledge the role the public and private sectors must play, as established in a genuine commitment to adopt measures and policies in benefit of the environment, being aware that long-term benefits will translate into a better life quality of the Central American population. Based on the above, the characteristics of the new development plans of the region's countries must be oriented to promote free trade, improve inclusion, develop sustainable public policies, prompt mechanisms to reduce the inherent vulnerability in the face of economic clashes and natural disasters, and promote greater economic growth and job creation.

CABEI carries out its activity based on the application of the Institutional Strategic Framework (MEI). The main purposes of MEI is to guarantee an integrated view of the region and country at the level of Bank's operations, and to strengthen the institutional evaluation framework. To such end, an appropriate alignment is sought for in the strategic and operational propositions deriving from the Institutional Strategy, the Country's Strategies, the sectoral intervention frameworks, and the Annual Operating Plan (POA). The Institutional Strategy is a proposal that defines the mission and priority objectives of the Bank for the region, executed through instruments oriented to assist the development needs and priorities. The sectoral intervention frameworks speed up understanding of and assistance to those areas of greater relevance for the region. Short-term operating plans propose interventions that will be conducted by the Institution within 1 year term. Such MEI is evaluated through a result-oriented management system to ensure alignment with the goals and priorities established.

~~It is also important to note that on June 9th, 2016 changes to CABEI's constitutive agreement came into effect with changes to the Bank's nature and objective, the characterization of its members and conditions for contracting guarantees or loans, as well as provisions for the adhesion of new members in order to offer them options that are adapted to their particular conditions.~~

~~These reforms establish~~CABEI's MEI has established a governance structure that reflects the Bank's alignment with the Central American Integration System (SICA), ~~consolidate~~consolidates CABEI's preferential creditor treatment, ~~strengthen~~strengthens CABEI's capital base and ~~increase~~increases the diversification of its loan portfolio, enabling the possibility to provide financing to all non-regional member countries.

~~The reforms include an~~An equal treatment is applied to all SICA member countries ~~by changing:~~ the category of Panama, the Dominican Republic and Belize has been changed to non-founding regional members, opening the possibility for them to have a permanent titular seat on CABEI's Board of Directors.

F. Describe how the project / programme meets relevant national technical standards, where applicable, such as standards for environmental

assessment, building codes, etc., and complies with the Environmental and Social Policy of the Adaptation Fund.

~~The project will promote concrete actions for the conservation of ecosystem services, so changes in the environment seek to favour their conditions. In addition, activities will not be large; therefore EIA (Environmental Impact Assessment) and water protection specific regulations will not be applicable. The construction activities will be also minimal and hand made, and they will have low environmental impact; consequently no specialized building codes will be applicable.~~

~~According to a~~
All project activities must be compliant with each country's constitution, and local, national and international legislation, as required by the safeguards of the AF and the SIEMAS. Each activity will be analyzed specifically with the technical enabler, who is to verify whether it is necessary to meet any specific regulation, permitting, special licenses, and who is to ensure that the rights of any person or community are not infringed.

A preliminary analysis (screening), of the characteristics of ~~its actions (~~the project activities has been made. They are oriented at protecting natural habitats, preserving biodiversity, preventing contamination and favouring the efficient use of resources, preserving soil, among others~~), the project is classified as Category C, that is, of minimum environmental and social risks or impacts, or at least not adverse.~~. Also, through this project ~~the Bank~~CABEI will attend MSMEs rural located in areas of high climatic irrigation to improve their resilience and their living conditions through innovative financial products established to attend this sector sometimes unattended by the traditional financial system. Since project activities are small in scale, and their impacts are reversible or easily mitigated, the project has been categorized as Category B.

However, in order to ensure compliance with the environmental and social principles of the Adaptation Fund, CABEI shall apply its Environmental and Social Risk Identification, Assessment and Mitigation System (known as SIEMAS). Through its tools, this system allows to determine, prevent and take actions in the face of project's environmental and social risks.

The SIEMAS is executed during the whole cycle of the projects, including monitoring and follow-up in order to assess and ensure the environmental and social sustainability during the execution and operation stages of the project, and the generation of lessons learned.

It is worth stressing that a significant challenge for the project is the social approach to be considered in the relevant Plan of Action, according to SIEMAS. Such Plan of Action

will detail the specific measures to be conducted during the project to guarantee the principles of gender equality, empowerment and equity, among others; thus ensuring that men and women, as well as young, have equal chances, they have fair and equitable access to the benefits, and any existing inequality is not made worse.

Further description of SIEMAS has been included in section L.

G. Describe if there is duplication of project / programme with other funding sources, if any.

The specific adaptation activities proposed in this project are not duplicated by other projects or initiatives. Nevertheless, there are several programs and projects with which the proposed project will seek complementarity.

a) CABEI's programs

Since 1985, the Central American Bank for Economic Integration (CABEI) has taken part in the support to the Central American small, medium and micro-sized enterprise sector (~~SMEEs~~MSME), by increasing access to its credit lines through intermediate financial institutions.

The Bank's support to the sector has been through its own resources and with resources of cooperative partners, among which the following must be mentioned: the European Union (EU), the Danish International Development Agency (DANIDA), the International Cooperation and Development Fund of the Republic of China (Taiwan-ICDF), the Spanish Agency International Development Cooperation (AECID) and KfW Development Bank of Germany, with which the Bank has entered into cooperation agreements. Since year 2007, this cooperation has become stronger with contributions from the GEF or Global Environmental Fund, to establish a program of Investment in Biodiversity in the Central American region through Project CAMBio and its different components to strengthen MSMEs.

In view of the weight of the MSME sector in the countries' economic and social development, CABEI is a key actor for the short-term strengthened access of MSMEs to its financial services in order to direct its resources towards Central American population's more needy layers and through different approaches.

Please find below a list of the programs conducted by the CABEI as regards the MSMEs of the agricultural sector in the participating countries of this project.

FINANCIAL INTERMEDIATION PROGRAMS

Small, Medium and Micro-sized Enterprise Support Program	The purpose of the program is to provide funding for urban and rural SMME through intermediary financial institutions. No duplication is found: this is a general program for MSMEs, from which investments are financed to promote business activity to continue contributing to job creation and business growth .
Support Program with an Energy Efficiency Approach	The purpose of these programs is to contribute to climate change through MSME in the region. No duplication is found, since these are climate change mitigation-related programs.
Support Program with a Renewable Energy Approach	
Support Program for MSMEs Affected by Natural Disasters	The purpose of this program is to stimulate business activity in areas that have been affected by natural disasters. ~~Disasters~~ No duplication is found, since this program is designed for responding to situations when disaster has already happened, as opposed to the project proposal, which deals with prevention.
~~Social Housing Program~~	~~The purpose of this program is to assist low-income households to acquire, build and improve their housing~~
Biodiversity SMME Support Program	The program aims to facilitate financing to MSMEs that incorporate the protection and conservation of biodiversity in their business, products and services. Synergy: this is the component of the credit that was used in the CAMBio project. this mechanism will be used in the future project, making the necessary changes.
~~CABEI Program for Education-oriented Loans.~~	~~The purpose of this program is to boost education funding to increase access to technical training and higher education~~

As background for the topics related to this proposal, the following paragraphs introduces projects in which the CABEI was involved:

- PROARCA (Central American Regional Environmental Program) and ARECA (Accelerating Renewable Energy in Central America and Panama, end date December 2015), had CCAD and CABEI as partners in one or more of their components, with the intention of promoting green economies in vital areas of conservation.

- With regards to CAMBio, CABEI was eager to integrate the environment into its working areas with regional integration projects. One of the distinctive aspects of CAMBio was the alliance with environmental institutions.

- The other project in CABEI that provided operative experience was ZONAF, financed by the EU.

- From PROARCA/CAPAS, the project strategy inherits the continuation of tourism and agro-forestry efforts in the peripheries of Protected Areas, and the promotion of green markets for organic coffee.

- SIGMA implemented a model that introduced financing and technical assistance to small and medium enterprises to reduce pollution. Working with FIs, this initiative provided risk guarantees for banks to catalyze investments on a commercial basis.

- A small GEF project, NITLAPAN and FDL developed a financial product known as Paquete Verde, targeting the introduction of sustainable practices on farms receiving microcredits.

Equally important was the transfer of experience that CATIE gained while implementing the Mesoamerican Agro-Environmental Program (MAP) funded by Scandinavian donors. In alliance with many regional partners, this initiative has been providing training and innovation in sustainable productive practices to Central American farmers, in coffee, cacao and other agroforestry commodities.

b) Projects and programs from other sources

Many projects are being implemented in the seven Central American countries, seeking to address problems of rural development and poverty while conserving the ecological base of the region.

These involve agricultural productivity and extension services including land administration, rural finance, forestry development, irrigation interventions and watershed management, many financed by the IDB and the World Bank.
Concentrated efforts have also been made in Central America to support biodiversity conservation through GEF-supported projects within the region. These countries have initiated a strategic approach to biodiversity conservation by beginning to coordinate development and conservation initiatives within the framework of the Mesoamerican Biological Corridor (MBC). The GEF-assisted MBC projects have concentrated on consolidating the protected areas system in Honduras, Panama, Guatemala, and Nicaragua. They have focused on implementing a people-oriented approach to

conservation in the national parks and biosphere reserves and on developing sustainable use activities in the buffer zones that are culturally viable and recognize indigenous land and resource rights. The GEF portfolio also includes a regional World Bank Mesoamerican Barrier Reef project and a Belize Barrier Reef project executed by UNDP.

IDB projects that have focused on community conservation and sustainable use include: the Darién Sustainable Development Program and Bocas del Toro Sustainable development Program in Panama, the Socio-Environmental and Forestry Program in Nicaragua, and the Rio Lempa Trinational Watershed Program in El Salvador, Guatemala, and Honduras. World Bank/GEF-MSP projects that have focused on community conservation and sustainable use include the Guatemala Bio-Itza Maya Indigenous Grassroots Community Management Project, El Salvador Coffee and Biodiversity Project, Costa Rica Organic Cacao Production Project, Costa Rica Eco-markets Project, and the Central America Indigenous Peoples Sustainable Development Project (TF ESSD).

IDB projects focused on Indigenous Peoples are: Natural Resource Management Project in priority Watersheds and Indigenous and Black Peoples Support Program (PAPIN) in Honduras, Social Environment for Forestry Development (POSAF) II in Nicaragua, the regional Ecotourism Projects (FONEMA), the Highland Watershed Program in Guatemala, and the Sustainable Development Program for the Darien in Panama.

World Bank projects focused on Indigenous Peoples are: Guatemala Bio-Itza Indigenous Biodiversity Conservation, Integrated Natural Resources Management in the Highlands in Guatemala, Indigenous Agroforestry Cocoa Biodiversity Conservation in Costa Rica, Sarstoon Temash Indigenous Biodiversity Conservation in Belize, and, at the regional level, the Indigenous Peoples Country Profiles Sector Work Analysis and the IDF Training Program for Strengthening Afro-Descendants Organizations.

These projects have no duplication with the proposed Project, since they do not contemplate activities that having as a primary objective the reduction of reducing vulnerability and increasing resilience of communities to Climate Change and its variability. Moreover, none of them work on reducing barriers to credit through an intermediary network, in a region where credit addressed to the agriculture sector is greatly limited. This project will raise awareness throughout the financial system in the region and will as well incentive this financial system to foray into new lines related to adaptation, for productive sectors of high-risk but high-impact development.

Regarding Adaptation projects, a preliminary assessment of ongoing initiatives granted by the AF has been performed. The objective is to avoid possible areas of duplication

and to search for possible alliances and synergies between this Project and other initiatives and projects. However, it can be confirmed that no other adaptation project has been implemented to the level of this proposal, in an integrated regional approach and channeling resources through financial intermediation.

A list of ongoing Adaptation Fund projects can be found in the following table were a preliminary synergy and duplication assessment has been performed.

This identification will be further developed during full project proposal development.

Table No. 17: Adaptation Fund projects in the Project area

Country	Project title	Grant amount in MMUSD	Approval date	Duration Years	Description	Synergy and/or Duplicity
Costa Rica	Reducing the Vulnerability by Focusing on Critical Sectors (Agriculture, Water resources, and Coastlines) in order to Reduce the Negative Impacts of Climate Change and Improve the Resilience of These Sectors	9,97	oct-14	5,0	The objective of this program is to reduce climate vulnerability by focusing on critical sectors (agriculture, water resources, and coastal zones) in order to reduce the negative impacts of climate change, and improve the resilience of those populations. This program seeks to increase climate resilience by working directly with local stakeholders and anticipated beneficiaries through the implementation of adaptation projects in each of the geographical areas selected. Projects submitted by local organizations have been screened and the preselected proposals went through an in-depth assessment of their potential for the enhancement of climate resilience, which involves an analysis of the actions' appropriateness, based on the local biophysical and socioeconomic context. The support consists on investment in interventions, technical assistance, and training.	Potential synergies have been identified, and will be deeply analyzed during full project design.
Guatemala	Climate change Resilient Productive Landscapes and Socio-Economic Networks Advanced in Guatemala	5,425	sep-13	3,5	The project aims to increase climate resilience of production landscapes and socio-economic systems in the target municipalities threatened by the impacts of climate change and climatic variability, in particular hydro meteorological events that are increasing in frequency and intensity. The key outcomes range from enhancement of institutional capabilities to support for building more resilient local economies, and increasing the adaptive	Potential synergies have been identified, and will be deeply analyzed during full project design.

Country	Project title	Grant amount in MMUSD	Approval date	Duration Years	Description	Synergy and/or Duplicity
					capacity of communities.	
Nicaragua	Reduction of Risks and Vulnerability Based on Flooding and Droughts in the Estero Real River Watershed	5,5	dic-10	4,0	The program relies upon a coordinated set of interventions designed to implement new public policies for addressing climate change. These include: investments in infrastructure for storing and using rain and surface water in eight micro-watersheds in the upper watershed of the Estero Real River; introducing more efficient use of water in all production processes, increasing infiltration, strengthening soil structure, and stabilizing slopes; institutional development and capacity building in micro-watersheds, municipalities, and participating national institutions; ongoing monitoring and analysis of climatic conditions and changes in land use, water flows and soil quality; and the dissemination of results and lessons learned about building climate change resilience in vulnerable communities.	There is no duplication. Potential synergies will be analyzed during full project design.

Country	Project title	Grant amount in MMUSD	Approval date	Duration Years	Description	Synergy and/or Duplicity
Honduras	Increased Systemic Resilience and Reduced Vulnerability of the Urban Poor	5,62	17/09/2010	5	The goal of the project is to increase resilience to climate change and water-related risks in the most vulnerable population in Honduras through pilot activities and an overarching intervention to mainstream climate change considerations into water sector policies. The project aims, for example, to integrate climate change risks and opportunities into the country's new water law and the new National Plan Law. Other goals include the strengthening of a national meteorological network; improving information on the scientific, technical, and socioeconomic aspects on impacts of climate change, vulnerability and adaptation; and increasing the availability of climate risk assessment tools and information to relevant institutions. In order to safeguard the water supplies of Tegucigalpa City and surrounding areas, the project will work to strengthen sustainable land use practices piloted in the highland watersheds and green belt around Tegucigalpa and instituting financial mechanisms that assist in managing water supply and demand. Training decision makers and resource users to better understand the projected impacts of climate change and providing them with the knowledge to identify effective options for reducing climatic risks and vulnerability is also an important facet of the project.	There is no duplication since this project involves a different target of vulnerable population. Potential synergies will be analyzed during full project design.

H. If applicable, describe the learning and knowledge management component to capture and disseminate lessons learned.

It is mainly through Component ~~3~~2, *Capacity Building for the Development of Production Models Resilient to Climate Change*, that learning activities will be provided, through training, awareness-raising and information activities that include: adaptation measures based on strengthening ecosystem resilience, and technical and commercial capacities of MSMEs.

A substantial portion of Lessons Learned will be based on monitoring and evaluation activities from CABEI, which will include within its main activities the definition of a methodology to systematize the institutional reporting thereof. To such end, experiences will be studied looking back and looking forward to document the learning process.

Systematization will enable to establish an orderly process to: i) re-build the experiences, ii) generate knowledge through critical reflection by the actors involved.

The stages defied to develop such process are three:

1.Planning: This stage pertains to the design of the systematization process. The output will be a document describing the Systematization Plan.

2.Retrieval, analysis and interpretation: This represents the unfolding of the experience itself. Its final output will be a document basically relating the systematized experience and the lessons learned. Such document will unfold 4 key aspects: a) the initial situation (before the intervention), b) the intervention process, c) the final or current situation, and d) the lessons learned.

3.Reporting of lessons learned: This last stage in the systematization process is the dissemination of the results. Its execution must allow obtaining the following outputs: i) a result communication strategy, ii) printed or audio-visual material, and iii) sharing of the systematization outputs.

~~For more details on the program's general dissemination and on the complaints and grievance mechanisms, please refer to section I below.~~

I. ~~Describe the consultative process, including the list of stakeholders consulted, undertaken during project / programme preparation, with particular~~

reference to vulnerable groups, including gender considerations, in compliance with the Environmental and Social Policy of the Adaptation Fund.

In the implementation of the full project, a multi-stakeholder approach will be pursued to create conditions for project ownership from its start to the final evaluation. The following will be considered: concrete responses to community needs, lining with national policies and strategies to combat climate change, priorities of development partners captured in formulating the objectives, the components, the expected results and the activities.

The active participation principles by the different public and private stakeholders will be guaranteed, together with criteria of social inclusion, gender and generation equality. Also, for the collective building of the Project, a constant, transparent and open dialog is required in order to listen to the opinions of all actors involved when incorporating adaptive measures based on ecosystem measures through the innovating financial proposals.

This way, it is intended is to improve the decision-making process, and to build a bridge between the project and those groups and organizations related to the project, by providing timely information to any stakeholders, and by promoting an active participation thereof to receiver their feedback, suggestions, recommendations, and to answer to any concerns so that the project may be executed in a context of mutual understanding and respect.

Among the initial project's participants the direct and indirect participation of the following actors, among others, is necessary:

National governments: Ministries of Environment, Agriculture, Development, Finances and/or any other as may apply.	Traders associations (MSMEs)
Local governments: department/municipal	Technical Assistance Service Providers
National Institutes for Agricultural Technology	Intermediate Financial Institutions
Universities	
Central American Commission on Environment and Development (CCAD)	United Nations Environment Programme (UNEP)
The Tropical Agriculture Research and Higher Education Center (CATIE)	Food and Agriculture Organization of the United Nations (FAO)

~~Associations of local producers, organizations and cooperatives of rural producers.~~	~~United Nations Office for Disaster Risk Reduction (UNISDR)~~

Program's general dissemination

CABEI maintains a constant reporting activity related to monitoring, evaluation, workshops, CABEI's annual reports, and similar. This information will be shared with IFIs and with MSMEs through audio-visual material, sharing on social networks, and participation in forums and events.

Throughout the life of the Project, informative channels will be kept opened with the community as a whole, with the local authorities, and with managers, employees, and their families in order to promote their participation in the Project.

A web site, and informative material, will be created about the initiative to hand out in nearby areas. The web site and the material will be updated based on the concerns expressed by the stakeholders, as well as the Project's progress throughout its stages.

The municipal authorities will be informed of the Project's progress so that they can, in turn, inform the community via any such means as the authority deems pertinent.

As a rule of thumb, all communications from the Project to the stakeholders will be prepared in a culturally appropriate wording, accessible and in the language of the recipients, in order to ensure their efficacy.

As regards the inclusion of the existing indigenous communities in the region, the project proposed will develop dissemination and promotion strategies to ensure that the information on objectives, instruments, requirements and ways of access get to the indigenous communities, to promote their participation. Also, to ensure that these communities participate in an effective manner, and specially to ensure equal opportunities, consultation processes will be implemented and appropriate instruments pursuant to the policies of the Adaptation Fund will apply.

Mechanism to handle complaints and grievances.

The **mechanism of complaints and grievances** seeks to facilitate the interaction between the Project and the community, upon reception of all kinds of concerns, complaints or grievances, and upon trying to solve potentially controversial situations through dialog and negotiation.

Such mechanism applies across the entire area of influence of the project from the time the project begins, and up to its end. A person will be appointed to implement this mechanism. It will instrument transparent means and mechanisms to facilitate the reception of concerns from the Project's stakeholders and to answer to such concerns in order to solve them and anticipate potential conflicts.
The mechanism will be implemented in an accessible manner for all members of the community, particularly those affected, and will provide fair, equitable and long-lasting results, within a reasonable time after filing the complaint.

CABEI's mechanism for environmental and social reporting is worth stressing as it allows logging, analyzing and curing any irregularities related to environmental and social risks deemed critical by the Bank. The workings and roles thereof are clearly defined to ensure that the stages of report reception, its analysis by the Chairperson, environmental and social expert, and technical work team; implementation of the Environmental and Social Plan of Action; and monitoring of the actions contained therein are fully met.

J. Describe the consultative process, including the list of stakeholders consulted, undertaken during project / programme preparation, with particular reference to vulnerable groups, including gender considerations, in compliance with the Environmental and Social Policy of the Adaptation Fund.

a) Initial consultation process

A series of interviews were performed during the concept stage: 8 MSMEs, 1 IFI and 2 Technical Assistance Providers. They were asked about the functioning of their organizations/ MSMEs, their production, their experience with CAMBio (when applicable), the impacts of climate variability they are already enduring, and the adaptation needs they identify.

With regards to climate variability that is affecting them most, the majority identify the change in precipitation patterns, that have many consequences: apart from the natural lower productivity and the different agricultural cycles, these changes are among the causes of epidemics like rust (please refer to background/ context section); very strong droughts are causing water shortages.

Those who have participated in CAMBio project, highlight that experience as very satisfactory. They worked on agroecological practices and green certifications, which allowed them to enter new markets.

Table below shows a record of MSMEs interviewed and a summary of the adaptation needs they have identified. For more details, please refer to Annex A.

Table No. 18 Record of interviews during initial consultation process

Date	Producer/ Organization name	Activities	Number of producers	Country	Adaptation needs posed
24/08/2016	Regional Agricultural Cooperative Union Chinacla Limitada	Coffee	386 producers (142 are women)	Honduras	Irrigation system, equipment to process coffee, workshop for entrepreneur women.
24/08/2016	Agricultural cooperative union in San Juan de Río Coco.	Certified organic coffee. From coffee production to export	8 grassroots cooperatives, gathering 420 people (99 women)	Nicaragua	Reforestation, recovery of water sources, improve soils, dam-type catchment
24/08/2016	Individual producer associated with Agroexport	Organic indigo	35 people working. Fixed, 8	El Salvador	Technical Assistance: irrigation systems. Crops that need less water and have good added value due to exhausted soil
25/08/2016	ADOBANANO (Banana producers' association)	Bananas	Sector 1851 producers. About 60 individuals and members of associations About 25-26 associations. Between 50 and 150 per association.	Dominican Republic	Technical Assistance. Organization. Pressurized irrigation. Solar technology for packaging machines and pumps. Agricultural insurance against winds. Increase in organic production. Training for the population to stop contaminating water and take care of the resource, system of water channeling farm-wide and drainage of sewage towards channels.
25/08/2016	Avocado Producers' Association Los Arroyos	Avocado Type A	54 producers, 3 women that own their own lands.	Dominican Republic	They need TA to export avocado. TA for water management, irrigation. TA in techniques and methodologies. Recovery of basins, change to perennial crops, sustainable and adaptive agriculture. Packaging facility.

Date	Producer/ Organization name	Activities	Number of producers	Country	Adaptation needs posed
25/08/2016	CAFEL cooperative	Coffee	230 producers (30% women and 20% young population).	Honduras	Keep improving organic quality. Certifications and TA. Investment in technology. Set up biodigestor to generate gas.
25/08/2016	ADOBANANO (mango producers' association)	Mango	32 active members	Dominican Republic	Reforestation TA and technology
26/08/2016	CONACADO (National Confederation of Dominican Cocoa Producers)	Cacao	44 members, 15% women	Dominican Republic	Renewal of plantations. At least 4,000 hectares to be renewed. Organic production and good environmental practices. Drip irrigation. Applying soil recovery techniques with natural fertilizers.

One **IFI** was interviewed: BANCAFÉ from Honduras. Their experience with CAMBio was focused in working with two cooperatives. They observed that difficulties for the payments were due to the impacts of rust and also for the changing agricultural patterns. The livestock sector suffers from droughts that provoke pasture deficit.

They received Technical Assistance from CAMBio, that they used mainly for training and for socializing the project.

Improvements suggested: amount of documents that must be handled, improving follow-up, visits from CABEI.

As for the **Technical Assistance Providers** (TASPs), two were interviewed, from Dominican Republic and Nicaragua. Transcriptions of the interviews can be found in Annex A. A summary of their comments is summarized here below.

Experience with CAMBio:

- They emphasize the impact of CAMBio for having introduced environmental aspects in the financial sector, and having found the way to capitalize synergies between the financial and the technical parts.

- A large number of small and medium-sized producers was reached contributing to create biological corridors that did not existent up until then. The impacts of the

investments made are maintained even in the absence of access to financing. All the experience gained remained there upon completion of the project.

Recommendations for a new project:

- Need of access to financing, which is a very serious problem for the small-scale agricultural sector: in the Dominican Republic in 2014, only 8% of the credits went for the agricultural sector.
- Technical Assistance is key to make changes more effective, credits more advantageous and for the award to drive and foster producers to follow the path of the project.
- The TA should continue to play its role, trying to solve the problems that producers cannot sometimes see, such as climate change.
- Establish payments according to farmers cash flow (crop cycles).
- Forge stronger bonds with the markets.
- Alliances with commercial firms that were willing to get involved in the production chain. Quality standards.
- Encourage producers to diversify their economic activities with a more sustainable production of the resources.
- Establish concrete measures, indicators, minimum quantities in terms of biodiversity and environment.
- Special attention to protected areas.
- Promote collective efforts, work in coordination with different actors.

Adaptation to Climate change considerations:

- Necessary and urgent approach. Depending on the sectors, but water, forest coverage, and diversification topics are key regardless of the area: deal with food security and reduction of disaster risks.
- Agricultural insurance.
- Resistance species, shades, windbreaks, improved grasses.
- Emergency response to hurricanes.

Role of women and young population:

- Rural women have a prevailing role. They should have a more leading position. Need to implement Gender approach, reduce social exclusion and gender-based gaps. Women are better at meeting due dates and at implementing business plans.
- Main obstacle for women: ownership. Need of more flexibility in the financial part, more inclusive policies.

b) Consultation considerations for the project.

During project formulation, consultation processes will be completed in the seven countries in order to address the real needs of small-scale producers and to improve

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National Institutes for Agricultural Technology	Intermediate Financial Institutions
Universities	
Central American Commission on Environment and Development (CCAD)	United Nations Environment Programme (UNEP)

The Tropical Agriculture Research and Higher Education Center (CATIE)	Food and Agriculture Organization of the United Nations (FAO)
Associations of local producers, organizations and cooperatives of rural producers.	United Nations Office for Disaster Risk Reduction (UNISDR)

K. Provide justification for funding requested, focusing on the full cost of adaptation reasoning.

The ecosystems and productive systems require an integrated set of solutions provided on the one hand access to financing to allow implementing activities, and on the other hand technical assistance to ensure the actual execution thereof. The adaptation of the production system in scenarios of water constraints, accelerated soil erosion, shortage of supplies and assets for production, thin vegetative cover and lack of knowledge on the implementation of agroforestry and agrosilvopastoral systems (the Quesungual agroforestry system, among others) cause loss of biodiversity and impoverished families' livelihoods.

The total cost of this project is SD 30 million, from which only 5 million are requested to the Adaptation Fund (AF). These 5 million will be directed to Bio-bonus and Technical Assistance Components. This shows that from this very first point, that AF resources will be used for incentivizing successful adoption of EbA measures and to enhance knowledge about Climate Change, EbA and other building capacities needed for MSMEs to reach a comprehensive adaptation strategy.

However, as described in Section A, the three components are fully interlinked and thus they would all contribute to the adaptation objectives of the project. No credit granting would be possible without the existence of Adapt-awards and Technical Assistance. Thus, AF results are equivalent to the results of the whole project.

Communities in Central America and Dominican Republic are highly dependent on natural resources. Their adaptive capacity is low. Without this project, loss of food production for not having supported strengthening of ecosystems and production systems' resilience would be significantly greater than the cost of the funding requested. Without project intervention, losses due to climate impacts are likely to keep on being dependent on governmental emergency responses, with the commonly known variety of government response effectiveness. These potential losses and increased costs of inaction associated with climate change, indicate the need of immediate action.

With regards to mechanisms, it is important to stress that today, loans based on adoption of EbA measures do not exist in the region. This shows clearly the additionally this project brings: not only this kind of credits do not exist; additionally is even more evident if we consider that MSMEs are usually seen as high risk investments by financial institutions. This experience is expected to generate knowledge and trust in both financial institutions and MSMEs and thus contribute to future replication.

Knowledge about climate change and EbA: there is currently limited understanding of climate change and how production units can increase their adaptive capacity by adopting environmentally-friendly practices. By enhancing knowledge on these issues, the project will contribute to reduce the rate of deforestation and degradation of biodiversity and, at the same time, improving the socio-economic conditions of beneficiaries. The project has the challenge of mainstreaming a cultural transformation that involves the modification of practices that have been for long implemented in the production units.

Without project intervention, those MSMEs that understand the benefits of preserving ecosystem services, will likely not take the risk of investing in transitional strategies from traditional agriculture practices to agro-ecological practices. One of the solutions is to ensure that the products will meet a market demand. Therefore, the project will help in building their commercial and organizational capacities through technical assistance and participation in sectorial events (component ~~3~~2) and will provide incentives (~~Bio-bonus~~Adapt-Award under Component ~~2~~3).

The aim of the project is to up-scale adaptation measures to the rest of the region. In the long term, enhanced MSMEs capacities will enable them to effectively respond to climate change impacts and show example of the success of having adopted these practices. The knowledge and experience gained will be disseminated with all the levels of stakeholders to encourage their replication.

L. Describe how the sustainability of the project / programme outcomes has been taken into account when designing the project / programme.

The main sustainability outcomes of the proposed project are summarized below.

- The strengthening of **ecosystem services** is a long-term wager on the resilience of production systems. The participatory co-management and monitoring– evaluation system involving all stakeholders in the various phases from the design to the implementation of activity and the evaluation of results also contribute to its sustainability.
- **Participation processes** ensure more effectively project's ownership.

- Work in an **associative** manner will be promoted by the project; this aproach has always ~~has~~ greater chances of enduring in time and of mitigating environmental, social and economic risks. The project proposes to prioritize investments promoted by cooperatives and producers' associations.
- In order to ensure the success and sustainability of activities, the project proposes to factor in both **local conditions and cultural traditions** so that actions truly respond to the need of the **natural environment and of the community** that lives in it.
- The project aims to **institutionalize the provision of financial and technical assistance** to the banking and MSME sector across the seven countries so the likelihood of the sustainability of the piloted activities will be increased. The project will serve, first as a demonstration platform to prove that this kind of investments and business can attract financing from both commercial banks as well as non-banking financial institutions, previously not experienced in environmental/adaptation projects.
- **New credit line** related to adaptation measures for resilient systems, will be open. This way, it will be possible for any other donor or funder to provide financing through this mechanism. The credit line will continue operating and will remain operational to the extent that there will be demand from the FIs.
- **Institutional capacity developed** by CABEI to implement this kind of programs will be installed.
- With the **revolving nature of the GCL**, the IFI may keep channeling resources granted by the CABEI to cover its demand and thus reach sustainability. For example, a financial institution of the region has disbursed over a period of 15 years a total sum of US$ 54 million using a line approved for US$ 9.0 million. This entails a GCL revolving 6 times, thus contributing in its own way to its sustainability. The allocation of resources thus revolved entails the performance of new disbursements. That is why the same requirements to use the GCL are applied.
- The proposed intermediary scheme is a novelty in adaptation to climate change strategies; success of t**his initiative can be taken by other regional or multilateral agencies** for effectively enable adaptation solutions by reducing barriers to financing from the most vulnerable.
- Technical Assistance activities, will seek to **build and install local and regional technical capacities,** in addition to national capacities, which are conscious and trained in Climate Change issues and sustainable small-scale agricultural production. These acquired capacities will empower over time the activities of the participating institutions, strengthening the existing ones and creating new ones, on the understanding that the relationship between

climate change and small-scale agricultural production is still a neglected area.

- Finally, improving the quality of life of farmers through adaptive actions in their production systems is a guarantee of the **permanence** of families in the rural environment and preventing their migration to the poverty belts in the urban outskirts.

M. Provide an overview of the environmental and social impacts and risks identified as being relevant to the project / programme.

CABEI's strategic guidelines established in its Environmental and Social Policy provide for the integration of the environmental considerations in the context of sustainable development in the analysis of all projects and internal practices of the Institution. As part of the Institutional Strategic Framework the cross-cutting focus of Environmental Sustainability is included in order to ensure that any institutional efforts for the development, competitiveness and integration are environmentally viable in the long run.

To such end, CABEI has an Environmental and Social Risk Identification, Evaluation and Mitigation System (SIEMAS, in Spanish) in place. This system is defined as the instrument that will allow to identify and protect against any environmental and social risks as well as taking any mitigation measure established in the projects' environmental and social assessments, integrated into CABEI's project cycle.

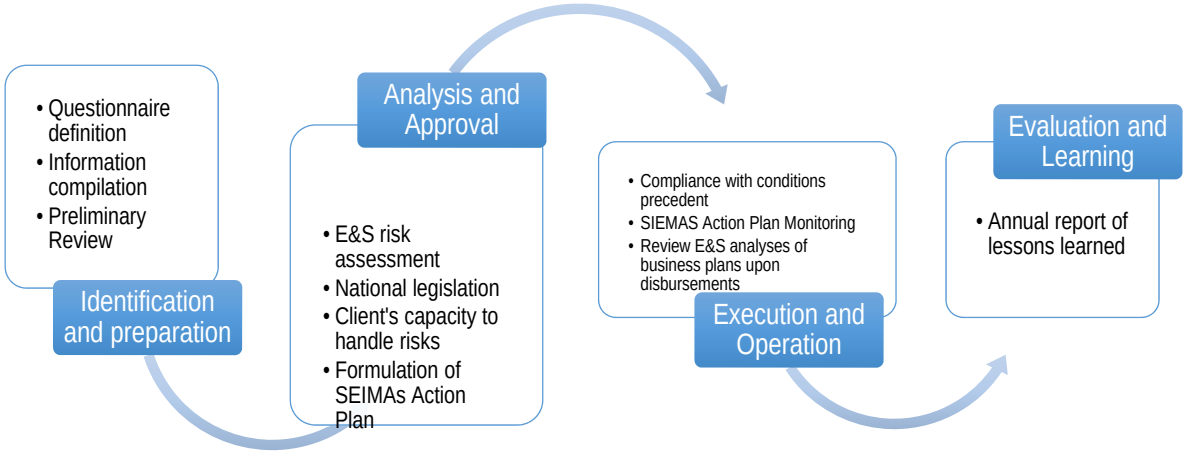
SIEMAS is based on environmental and social standards according to best practices. In this regard, it guarantees compliance with the environmental and social legislation of the applicable countries and the minimization, mitigation or compensation included in the environmental and social action plans of the projects and monitoring instruments in order to carry out an efficient monitoring thereof.

To such end, SIEMAS includes in part the Equator Principles according to the following matrix:

Equator Principles	SIEMAS
Review and categorization	X
Environmental and Social Assessment	X
Applicable environmental and social standards	X
Environmental and social management system, and Plan of Action	X
Participation of any stakeholders	Only for projects Category A
Grievance mechanism	X
Independent review	X
Covenants	X
Independent monitoring and reporting	X
Reporting and Transparency	Partial Report

SIEMAS is included in CABEI's Project Cycle according to the detail presented in the following figure.

Figure No. 18 CABEI's Project Cycle



The implementation of the analysis process and the monitoring of environmental and social risks of the intermediated credit are included in CABEI's project cycle, considering the following stages:

- At the Preparation Stage, CABEI defines the SIEMAS questionnaire to use and collect the information required for the analysis in order to preliminary review the environmental and social risks.
- At the Analysis Stage, CABEI completes the environmental and social risk analysis, as may arise from the operation of the Financial Institution, and determines the capacity the IFI has to manage such risks. This with the purpose of preparing the IFI's Environmental and Social Action Plan establishing mitigation measures to be fulfilled by such IFI and frequency thereof.

  At this stage, CABEI identifies the initial environmental and social risks of the loan portfolio of the Financial Institution, analyzes the size and probability of its direct and indirect impacts, defines the category of environmental and social risks, checks compliance with environmental and social legislation, determines the existing controls, and recommends any measures pertaining to the minimization, mitigation or compensation in case the impacts come into being. All of the above with the purpose of valuating the residual risk of the operation after applying all controls and thus defining the level of intensity of the action plan.

  The determination of the portfolio risk stems from the following three indicators:

  - Size of the portfolio and/or investments of the Financial Institution.
  - Size of the loan per employee: current loan portfolio or estimated investments of the IFI divided by the number of employees.
  - Portfolio categorization: three categories of environmental and social risk are defined according to the sectors financed:
    - Category SA: sectors where most of the projects have adverse or irreversible environmental/social impacts. Such impacts may affect an area outside the site of the project or are difficult to manage.
    - Category SB: sectors where most of the projects have adverse environmental/social impacts, but which could be successfully managed by subscribing to certain predefined performance standards, guides or design criteria.
    - Category SC: These are sectors where most of the projects will have very little adverse environmental/social impact.

  To protect against the materialization of the risks associated with the Financial Institution's portfolio, CABEI includes at least the following as part of the existing controls: 1) Policies or formal plans for the client's environmental and social

management; 2) Other environmental and/or social plans of the client; 3) In-house or external staff entrusted with the environmental and social management; 4) Institutional Environmental and Social Management System; and 5) Level of implementation of the Environmental and Social Management System.

The level of the action plan is defined considering two factors: i) Risk category of the portfolio of the Financial Institution and ii) client's capacity to manage environmental and social risks. This level is classified into intense, medium or slight.

- At the Monitoring and Supervision Stage, CABEI reviews to what extent the Financial Institution has incorporated the recommendations to minimize the environmental and social risks identified at the analysis stage subject to the frequency provided in the plan of action.

  Also, in the disbursement process for intermediation programs, the business plans of the final beneficiaries must include the environmental and social analysis of each project. Prior to granting any disbursement, there must be guaranteed compliance with environmental and social standards, as well as projects' environmental and social risk mitigation, including as part of the business plans any measures that might allow to ensure compliance with the SIEMAS and with the Environmental and Social Policy of the financing source.

A Preliminary Analysis of Project's Environmental and Social Impacts has been performed:

Checklist of environmental and social principles	No further assessment required for compliance	Potential impacts and risks – further assessment and management required for compliance
Compliance with the Law	~~Not Applicable~~	To be reviewed during E&S Analysis
Access and Equity		To be reviewed during E&S Analysis
Marginalized and Vulnerable Groups		To be reviewed during E&S Analysis
Human Rights	Not Applicable	
Gender Equity and Women's Empowerment		To be reviewed during E&S Analysis

Core Labour Rights		To be reviewed during E&S Analysis
Indigenous Peoples		To be reviewed during E&S Analysis
Involuntary Resettlement	Not Applicable	
Protection of Natural Habitats		To be reviewed during E&S Analysis
Conservation of Biological Diversity		To be reviewed during E&S Analysis
Climate Change		To be reviewed during E&S Analysis
Pollution Prevention and Resource Efficiency		To be reviewed during E&S Analysis
Public Health	Not Applicable	
Physical and Cultural Heritage	Not Applicable	
Lands and Soil Conservation		To be reviewed during E&S Analysis

~~**1. Compliance with the Law:** No special issues are to be considered. To be confirmed and verified for each country during the formulation stage.~~
The impacts of the project activities are expected to be very low, and the project has been categorized as B in order to verify this assumption. Following, a list of minimal environmental impacts is shown, just to demonstrate that the impacts have been reviewed and why they are considered minor impacts.

1. Compliance with the Law: All project activities must be compliant with each country's constitution, and local, national and international legislation, as required by the safeguards of the AF and the SIEMAS. Each activity will be analyzed specifically with the technical enabler, who is to verify whether it is necessary to meet any specific regulation, permitting, special licenses, and who is to ensure that the rights of any person or community are not infringed.

2. Access and Equity: the selection processes of the beneficiaries will be transparent and ensure an equitable access to the benefits. The procedure will provide for measures of action necessary to fulfill such principle. The communication policies and procedures of CABEI and the IFIs will ensure equitable access of the potentially beneficiary population. For further details on communication guidelines, please refer to section I. At the time of preparing the operating manuals of each component, the

mechanisms that ensure the equitable access to benefits will be specified. To be verified during the evaluation & analysis process.

3. Marginalized and vulnerable: given the nature of the project, it will not generate disproportionate adverse impacts to vulnerable or marginalized groups. On the contrary, this Project focuses on the most vulnerable micro, small and medium enterprises in order to adapt their productive systems to climate change by environmentally-friendly measures increasing ecosystem resilience. However, to ensure this principle and avoid any involuntary adverse impact, training and workshops of social sensitization with the technical enablers of the Financial Entities will be conducted. Also, eligibility forms of the beneficiaries will contemplate variables related to their vulnerability, which will be a part of the MSME selection criteria. To be reviewed during E&S Analysis

4. Human Rights: Not applicable

5. Gender Equity and Women's Empowerment: the project is intended to prevent any existing inequalities from increasing, and to generate specific mechanisms to ensure a gender equitable access to benefits. Indicators will be available that show the generation of employment for women and their access to the project's benefits. Considering the necessary precautions, the project's impact will be highly positive in terms of empowerment of rural women. In no case may the project's activities increase or create new gender gaps. To ensure this principle, gaps will be detected as well as specific situations where special attention must be paid by providing specific training in this topic to technicians in contact with producers. The forms will be the instruments that will enable technicians to initially survey information. Based on the accompaniment needs detected, work may also be conducted through workshops with producer men and women at the level of the production chain, organizations, etc. Gender issues to be verified during the evaluation & analysis.

6. Core Labor Rights: The rural setting typically features precarious and informal working conditions. The project will provide for measures in the plan of action leading to make the problem visible and try to bring solutions for the rural workers in an employment relationship. In all cases, ILO's work rights will be guarded.

7. Indigenous People. The project does not foresee negative effects upon aboriginal communities. On the contrary, given their extended presence throughout the territory, there will be communities that will benefit from the project. Given that the indigenous population constitutes a substantial fraction of the population in the project's countries, a high participation is expected of rural indigenous population in the activities, being used to work in an associative manner. Special attention will be paid to communications. For further details on communication guidelines, please refer to section H. In the cases of projects located in territories of indigenous populations, as part of the environmental and social analysis of the Business Plans, consultation processes will be required pursuant to international agreements such as the ILO 169, as well as their results. Projects will only be conducted with the consent of the community. The risk of negative

effects upon indigenous communities shall be included in the eligibility questionnaire as part of the selection criteria. To be reviewed during E&S Analysis

8. Involuntary Resettlement: Not applicable

9. Protection of Natural Habitats: The project does not provide for habitat disturbance. In this regard, the activities to be developed are related to habitat preservation. All technical enablers will receive specific training in the topic of Protection of Natural Habitats in order to detect any departure from and avoid any negative impact in protected areas, critical habitats, or areas known to be protected by local traditional or indigenous communities. This aspect will be included as critical in the form of eligibility as part of MSME selection criteria. To be reviewed during E&S Analysis

10. Conservation of Biological Diversity: As part of the project, the advance of the agricultural frontier will not be encouraged in detriment of native forests or other areas for conservation of biological diversity. The promotion of diversified agro-ecological production systems enhances biodiversity and, in the mid-term, it turns production systems into more stable and sustainable systems in the long run. . All technical enablers will be specially trained in Conservation of Biological Diversity to detect any departures and avoid any activity infringing this principle. To be reviewed during E&S Analysis

11. Climate Change: No special concern, beyond adaptation activities. The project will not generate large amounts of greenhouse gas (GHG). Conversely, in some cases (always, at a small scale), it may reduce them through the incorporation of technology that improves energy efficiency of some of the premises, and the transition to agro-ecological production gradually eliminating the use of chemicals or the conservation of woods preventing deforestation effects. To be reviewed during E&S Analysis

12. Pollution Prevention and Resource Efficiency: In theory, no activity of the project will generate contamination. On the contrary, this project promotes, among its activities, the treatment of effluents and residue recycling. Based on the scale of the projects, large energy consumption is not foreseeable. However, during the monitoring and follow-up procedure, the necessary mitigation measures will be considered to guard against the materialization of this risk. To be reviewed during E&S Analysis

13. Public Health: Not applicable

14. Physical and Cultural Heritage: Not applicable

15. Lands and Soil Conservation: The project does not anticipate the execution of large works that would require earthworks or the use of agrochemicals. Rather, it promotes agro-ecological production and application of organic fertilizers nourishing and preserving the soil. However, in the stages of agro-ecological transition or upon facing critical levels of pests and diseases that need the use of pesticides, as part of the environmental and social action plan it wil be required to ensure the appropriate and

responsible use and disposal of agricultural supplies. To be reviewed during E&S Analysis.

PART III: IMPLEMENTATION ARRANGEMENTS

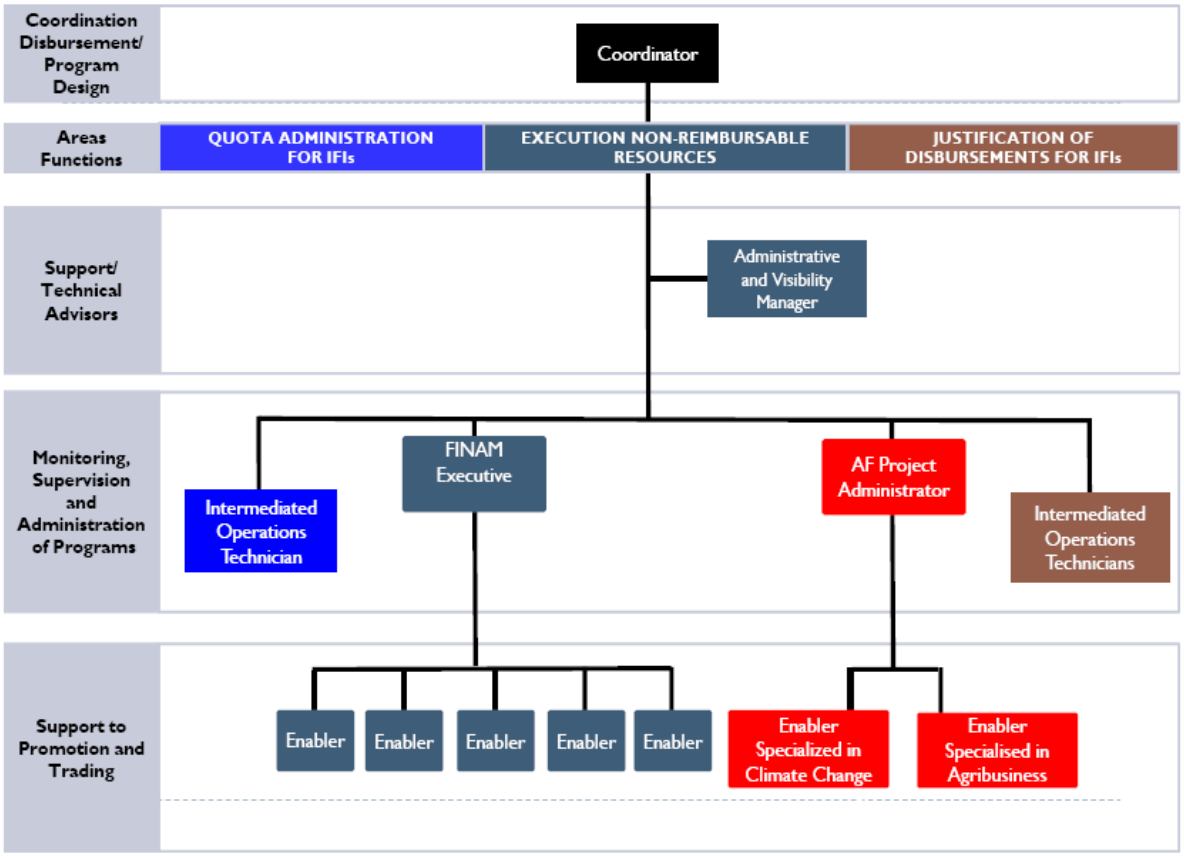
A. Describe the arrangements for project / programme management at the regional and national level, including coordination arrangements within countries and among them. Describe how the potential to partner with national institutions, and when possible, national implementing entities (NIEs), has been considered, and included in the management arrangements.

The following key institutional actors and structures will be involved in project management:

- CABEI will be the project's implementing entity;
- ~~The Financial Intermediary Institutions (FI) that are accredited in the Region will be the executing agencies;~~
- A Project ~~Co-ordination~~Administration Unit (~~PCU~~PAU) within CABEI will be responsible for day-to-day project co-ordination, management and execution; which would include within its functions the provision of monitoring and evaluation services. Funding for this unit and its functions is yet to be defined.
- A number of Technical Assistance Service Providers (TASPs) will be sub-contracted by the project to provide technical support and outreach.

Specific roles of each of the above institutional actors and structures are outlined below. It is important to highlight that this scheme will be further developed during the formulation of the full proposal.

Figure No. 19. Operational Scheme including Project Administration Unit



Project implementation

CABEI will maintain day-to-day oversight responsibility for project implementation and have direct responsibility for fulfilling the duties and obligations of an Adaptation Fund Implementing Entity. It will be responsible for financial management and accountable for the use of AF resources under the project. It will provide technical and administrative backstopping to the Project ~~Co-ordination~~Administration Unit (see below) to ensure results-oriented management and proper administration of funds. It will maintain project accounts, facilitate staff recruitment and procurement processes and monitor resource mobilization of baseline and co-finance. Financial transactions will be subject to annual audits undertaken by internationally certified auditors.

CABEI will have ~~regular communication~~permanent coordination with project staff; perform site visits; and dialogue with project stakeholders. As an Implementing entity, CABEI will as well be in charge of Monitoring and Evaluation activities of the Project, of ensuring the transparent access to information and of disseminating results and lessons learned.

Project ~~Co-ordination~~Execution

Project Administration Unit (~~PCU~~PAU) will be the executing entity. It will be established in Tegucigalpa within the Headquarters of CABEI and will have general project ~~coordination~~administration functions. It is proposed that the unit be located within the Financing for the Majorities (FINAM) Area in CABEI. ~~–~~FINAM will be responsible for assisting to link the ~~PCU~~PAU to the rest of CABEI's departments, offices and programmes. ~~FINAM~~PAU will ~~designate staff to~~ work ~~closely with~~under the ~~PCU in general and on~~FINAM structure to coordinate specific activities to be agreed during the project inception phase.

The ~~PCU~~PAU will ensure that project implementation proceeds smoothly through well-written work plans, Terms of Reference and carefully designed administrative arrangements that meet CABEI's requirements.

The responsibilities of the ~~PCU~~PAU will include the following:

- Achievements of the project outcomes and objectives;
- To manage day-to-day implementation of the project, coordinating project activities in accordance with the rules and procedures of CABEI/Adaptation Fund.
- To provide overall project ~~co-ordination~~administration, while acting as an independent and unbiased guarantor of cooperation and information exchange;
- To provide technical input as appropriate into the outcomes;
- ~~To~~To ensure, together with CABEI, to coordinate with the project stakeholders and regional programmes of relevance to the project;
- ~~To~~To ensure, together with CABEI, to convene quarterly Project Implementation Meetings (PIMs) in order to review progress in implementing project work plans;
- To ensure, together with CABEI, that specified tasks are outsourced to suitable sub-contracted Technical Assistance Service Providers or national and international consultants through competitive bidding processes. ~~PCU~~PAU responsibilities in this regard include development of bidding documents and terms of reference;
- To organize project-level meetings and workshops, e.g., inception workshop, Project Steering Committee (PSC) meetings, etc.;
- To prepare overall project reporting.
- Planning for and monitoring the technical aspects of the project, including regular field visits and periodic reporting.
- ~~Maintaining a~~Ensuring to separate project ~~account~~accounts for the accountability of project funds.

- Ensuring advanced funds are used in accordance with agreed work plans and project budget.
- Preparing, ~~authorizing~~ and adjusting commitments and expenditures to be authorized by CABEI; ensuring timely disbursements, financial recording and reporting against budgets and work plans.
- Managing and maintaining budgets, including tracking commitments, expenditures and planned expenditures against budget and work plan;
- Maintaining productive, regular and professional communication with other project stakeholders to ensure the smooth progress of project implementation.

~~**IFIs** will be the executing agencies; therefore, their responsibilities will include the following:~~

- ~~Planning for and monitoring the technical aspects of the project, including regular field visits and periodic reporting to CABEI.~~
- ~~Actively participating in all relevant project activities where appropriate.~~
- ~~Adopting, during the course of the project, the systems, programmes and tools developed by the project to ensure sustainability of the project outcomes.~~
- ~~Ensure all committed credit lines remain available for project related lending activities.~~
- ~~Play an active role in coordinating with other stakeholders throughout the project and in particular to maintain a close relationship with CABEI Preparation and submission of periodic progress reports, and regular consultations with beneficiaries and contractors.~~

Technical Assistance Providers (TASPs): The preparation phase of this project will identify a number of organizations in the region which are qualified to provide technical assistance to the FIs and MSMEs. It is expected that a number of these organizations will play a key role in project implementation particularly in providing technical services to the FIs and the MSMEs. Many of these organizations are already active in the region supported by donor-financed activities. It should be noted that these organizations have not yet been selected to be engaged as specific technical assistance service providers (TASPs).

B. Describe the measures for financial and project / programme risk management.

To be developed in the course of the detailed project preparation.

C. Describe the measures for environmental and social risk management, in line with the Environmental and Social Policy of the Adaptation Fund.

To be developed in the course of the detailed project preparation.

D. Describe the monitoring and evaluation arrangements and provide a budgeted M&E plan.

The project will follow CABEI's standard monitoring, reporting and evaluation processes and procedures. These include an inception report, quarterly and annual financial and activity-based reports; annual financial audits, independent mid-term and terminal evaluations and a final report. During preparation of the full project proposal a Project Results Framework and a costed M&E plan will be developed.

E. Include a results framework for the project / programme proposal, including milestones, targets and indicators.

A full Results Framework, will be developed in the course of the detailed project preparation to serve as the basis for monitoring the project impact and results

F. Demonstrate how the project / programme aligns with the Results Framework of the Adaptation Fund

To be developed in the course of the detailed project preparation.

Project Objective(s)[28]	Project Objective Indicator(s)	Fund Outcome	Fund Outcome Indicator	Grant Amount (USD)

[28] The AF utilized OECD/DAC terminology for its results framework. Project proponents may use different terminology but the overall principle should still apply

To build Capacity for the Development of Production Models Resilient to Climate Change	Number of farmers with strengthened capacities to respond to climate change impacts	Outcome 3: Strengthened awareness and ownership of adaptation and climate risk reduction processes at local level	3.2. Percentage of targeted population applying appropriate adaptation responses	2,000,000
To build resilience to climate change of micro, small and medium agricultural enterprises from Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, Panama and Dominican Republic, by reducing barriers to adaptation finance.	Number of MSMEs that have implemented adaptation measures by having accessed to adaptation loans and incentives.	Outcome 6: Diversified and strengthened livelihoods and sources of income for vulnerable people in targeted areas.	6.2. Percentage of targeted population with sustained climate-resilient alternative livelihoods	3,000,000
Project Outcome(s)	**Project Outcome Indicator(s)**	**Fund Output**	**Fund Output Indicator**	**Grant Amount (USD)**
Activities and results of the project are visible to beneficiaries, stakeholders, general public.	No. of MSMEs having accessed to training / participated in adaptation events.	***Output 3***: Targeted population groups participating in adaptation and risk reduction awareness activities	3.1 No. of news outlets in the local press and media that have covered the topic	2,000,000
Barriers to credit for MSMEs adopting EbA measures are reduced and MSMEs'	Number and type of MSMEs adopted adaptation measures (adaptation strategies).	***Output 6:*** Targeted individual and community livelihood strategies	6.1.1.No. and type of adaptation assets (tangible and intangible) created or	3,000,000

resilience is strengthened.		strengthened in relation to climate change impacts, including variability	strengthened in support of individual or community livelihood strategies	

G. Include a detailed budget with budget notes, broken down by country as applicable, a budget on the Implementing Entity management fee use, and an explanation and a breakdown of the execution costs.

To be developed in the course of the detailed project preparation.

H. Include a disbursement schedule with time-bound milestones.

To be developed in the course of the detailed project preparation.

PART IV: ENDORSEMENT BY GOVERNMENTS AND CERTIFICATION BY THE IMPLEMENTING ENTITY

A. Record of endorsement on behalf of the government[29] *Provide the name and position of the government official and indicate date of endorsement for each country participating in the proposed project / programme. Add more lines as necessary. The endorsement letters should be attached as an annex to the project/programme proposal. Please attach the endorsement letters with this template; add as many participating governments if a regional project/programme:*

Sydney Samuels Milson, Minister, Ministry of Environment and Natural Resources of Guatemala	Date*: 08/22/2016*
Lina Pohl, Minister, Ministry of Environment and Natural Resources of El Salvador	Date: 08/18/2016

6. Each Party shall designate and communicate to the secretariat the authority that will endorse on behalf of the national government the projects and programmes proposed by the implementing entities.

Jose Antonio Galdames, Minister, Ministry of Energy, Natural Resources, Environment and Mines of Honduras	Date*: 08/16/2016*
Juana Argeñal, Minister, Ministry of Environment and Natural Resources of Nicaragua	Date: 08/31/2016
Edgar Gutierrez Espeleta, Minister, Ministry of Environment and Energy of Costa Rica *Andrea Meza Murillo, Climate Change Director, Ministry of Environment and Energy of Costa Rica*	Date: 08/09/2016
Emilio Sempris *Deputy Minister, Ministry of Environment of Panama*	Date: 09/02/2016
Pedro Garcia Britos, Climate Change Director, Ministry of Environment and Natural Resources of the Dominican Republic	Date*: 08/09/2016*

B. Implementing Entity certification *Provide the name and signature of the Implementing Entity Coordinator and the date of signature. Provide also the project/programme contact person's name, telephone number and email address*

I certify that this proposal has been prepared in accordance with guidelines provided by the Adaptation Fund Board, and prevailing National Development and Adaptation Plans Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, Panama and Dominican Republic ~~(……list here……)~~ and subject to the approval by the Adaptation Fund Board, commit to implementing the project/programme in compliance with the Environmental and Social Policy of the Adaptation Fund and on the understanding that the Implementing Entity will be fully (legally and financially) responsible for the implementation of this project/programme.	
Dr. Nick Rischbieth Executive President of CABEI ~~*Name & Signature*~~ Implementing Entity Coordinator	
Date: *August 31, 2016~~(Month, Day, Year)~~*	Tel. and email: (504) 22402243 nrischbi@bcie.org
Project Contact Person: Otto Gutierrez	
Tel. And Email: 504) 22402243 ogutierrez@bcie.org	

ANNEX A - Initial consultation process

A.1 Beneficiaries Consultation

Date	Contact	Producer/ Organization name	Activities	Number of producers	Location	Country	Experience with CAMBio	CC Impact	Needs posed
24/08/2016	Elías Ramírez and Rosario Pineda	Regional Agricultural Cooperative Union Chinacla Limitada	Coffee	386 producers (142 are women)	Department La Paz, near Corredor Seco	Honduras	The experience has helped them improve productivity and quality. Improved facilities of the cooperatives, to wit warehouses and coffee for preparation, export, participation in shows. Thanks to the project, they began to export.	Rust plus weevils are drying the country's forests, cause low productivity. Stronger rains.	Irrigation system, equipment to process coffee, workshop for entrepreneur women.
24/08/2016	Griselda Ponce	Agricultural cooperative union in San Juan de Río Coco.	Certified organic coffee. From coffee production to export	8 grassroots cooperatives, gathering 420 people (99 women)		Nicaragua	With the CAMBio project, they sold certified organic coffee and bird friendly certification, maintenance of coffee areas, received bio-award and used it to strengthen certification processes and the area's processes.	Increasingly less winter; less coffee quality. Rust increase = 40% less production	Reforestation, recovery of water sources, improve soils, dam-type catchment
24/08/2016	Rhina Yolanda Flamenco de Rehmann	Individual producer associated with Agroexport	Organic indigo	35 people working. Fixed, 8		El Salvador	Obtained financing, which is very difficult for small companies. Bio-award to deduct its debt. Before CAMBio, 200 kg were sold and now 500 kg, organic certifications, new markets	longer droughts, dry wells. In 2010, 12 ha were lost due to flooding.	TA to know what is best for them to adapt to the changes. Specialization in irrigation systems. Seek crops that need less water and have good added value due to exhausted soil
25/08/2016	Dario Vargas	ADOBANANO (Banana producers' association)	Bananas	Sector 1851 producers. About 60 individuals and members of associations About 25-26 associations. Between 50 and 150 per association.		Dominican Republic	Organic production started. They have learned to collect and administer common property	It is the world's fourth region in level of risk due to climate change. Huge exposure to tornadoes more and more frequent plus cyclones. Soil erosion and salinization. Water shortage.	They need to keep on growing as an organization. Pressurized irrigation. Solar technology for packaging machines and pumps, and TA. Agricultural insurance against winds. Increase in organic production. Training for the population to stop contaminating water and take care of the resource, system of water channeling farm-wide and drainage of sewage towards channels.
25/08/2016	Dalvin Espinal, Vladimir Valdez	Avocado Producers' Association Los Arroyos	Avocado Type A	54 producers, 3 women that own their own lands.	Pedernales (settlement Los Arroyos) bordering with Haiti	Dominican Republic	None	Temperature is changing, it is less cold and it rains less. The long agricultural cycle is changing due to climate change.	They need TA to export avocado. TA for water management, irrigation. TA in techniques and methodologies. Recovery of basins, change to perennial crops, sustainable and adaptive agriculture. Packaging facility.

25/08/2016	Héctor Oliva	CAFEL cooperative	Coffee	230 producers (30% women and 20% young population The remaining 50% are men).		Honduras	Good experience because it was not only about soft funds (they used to pay rates of 18-20% and with the project, the rates lowered to 10%). Incentive and award helped a lot. They had 2 certifications and now 5. When the project ended, they decided to build a financial division of the cooperative, a non-banking financial entity, to support producers with small sums. Bio-award was used for certifications. Organic and fair trade and TA	very long summers and very high temperatures They have two problems when the winter comes: dissemination of fungi diseases due to excess of moisture and pest proliferation.	Keep improving organic quality. Certifications and TA. Investment in technology. Set up biodigestor to generate gas.
25/08/2016	Antonio Navarro	ADOBANANO (mango producers' association)	Mango	32 active members	Azua	Dominican Republic	None	Losses due to water stress	Reforestation TA and technology
26/08/2016	Franklin Gómez Burdier	CONACADO (National Confederation of Dominican Cocoa Producers)	Cacao	44 members, 15% women	North and East	Dominican Republic	None	There is drought when it has to rain and viceversa. This affects productivity. Droughts are very strong: heavy losses. They have been renewing the plantations, thus they have lost in lesser proportion: 10% of the production versus 30% estimated loss if they hadn't renewed plantations. Before, they used to produce 1.5 quintals per hectare and now 0.6.	They would need to work on the renewal of plantations. At least 4,000 hectares to be renewed. Organic production and good environmental practices. Drip irrigation. Applying soil recovery techniques with natural fertilizers.

A.2 Technical Assistance Providers Consultation

CONSULTATION - NITLAPLAN (Silvopastoral and Agro-forestry Systems)
Date: August 24, 2016
Contact: ELIAS RAMIREZ Head of Technical Assistance
Country: Nicaragua

Experience with CAMBio

It is a Central American Research Institute adhered to the University. TA was provided to the beneficiaries of funds from Productive Alliances under CAMBio project.

They participated from the very first stages of CAMBio project and during the 4-5 years that the project lasted, providing advise to coffee producers, the agricultural and tourism sectors. There were there in the 6 or 7 agreements. They assisted near 2000 producers.

Advice to answer to environmental indicators. They also accompanied the delivery of the bio-award (5 or 6). They coordinated the technical part, bringing transparency to the entire process.

Impacts achieved: coffee and livestock producers could make investments in their farms. Increased tree coverage, silvopastoral systems, natural regeneration, protection and restoration of water sources. Windbreaks, special arrangements of tree coverage, water treatment. The approach of landscape connectivity has been incorporated. With credit, it is difficult to expect that they combine.

Having seen the results allowed to introduce environmental aspects in the financial sector, and find and capitalize synergies between the financial and the technical parts. They supported the presentation of the technical proposals and coordination in general between the northern and central portions of the country where most of the projects took place.

A large number of small and medium-sized producers was reached contributing to create biological corridors that did not existent up until then. The impacts of the investments made are maintained even in the absence of access to financing. All the experience gained remained there upon completion of the project. As from the project, a historical alliance with SDL was forged existing to this day, and TA is still provided in such topics, although these are credits taken by the producers. Impacts on biodiversity are still visible.

Which TA would you propose in a new project?

Inputs that with CAMBio came into being. The TA component, key to make changes more effective, credits more advantageous and for the bio-award to drive and foster producers to follow the path of this project.

Forge stronger bonds with the markets.

Alliances with commercial firms that were willing to get involved in the production chain. Quality standards.

Encourage producers to diversify their economic activities with a more sustainable production of the resources.

More demands. Establish concrete measures, indicators, minimum quantities in terms of biodiversity and environment. Ex. Livestock No minimum number of live fences was required by the project. See how to dose and demand volume/quantity to attain the expected results. There are producers who made very substantial transformations, but in some other cases, the investment was unrelated to the credit taken.

TA frequency/modality. The TA should continue to play its role, trying to solve the problems that producers cannot sometimes see, such as CC.

Avoid making things complicated, without leaving all doors open. Access must have a minimum demand level. Stricter prohibitions regarding areas. Indicators that should not be acceptable. Review this part and adjust it.
Something I would not discard would be the issue of protected areas. Increasing pressure of individual producers over productive areas. Same as landscape connectivity. This is a problem of regional size.

Community investments
Collective efforts are required. Other important actors: cooperatives, municipalities. It is important to connect these actors with a more holistic reflection over the project. Work in coordination with the different actors, with a community-based vision, reflect on a community level on the collective actions. Condition not proposed in the first stage. Important to foster it, it may generate important demands.
Sector that was not prioritized: sustainable tourism sector. Many areas of Nicaragua, once the project ended. The second part of the project, tourism was treated as in integrating economic activity in environmental terms, resulting in more income community-wide.

Climate Change
Necessary and urgent approach. Depending on the sectors. But the water, tree coverage, and diversification topics are key regardless of the area: deal with food security and reduction of disaster risks. The region really needs this.

Role of women and young population
Rural women have a prevailing role. They should have a more leading position. Gender approach and participation, reduce social exclusion and gender-based gaps. Women are better at meeting due dates and at implementing business plans.
Obstacle for women: ownership. The guarantee always falls on the men side. Lower guarantee burden for women. More flexible financial part, more inclusive policies.

CONSULTATION - CODESPA (Technical Assistance Provider)
Date: August 26, 2016
Contact: Manuel Sena
Country: Dominican Republic

International Cooperation and Development. Born in Spain, and operating in Asia, Africa and Latin America International missions. Part of the Caribbean delegation. Centered in the Dominican Republic and moved to Haiti. Have a line of work of microfinances for development - Base of the Pyramid. Work promotion and insertion, access to markets aimed at the agricultural sector, community tourism.
They work with Dominican local banks with microfinances.

They handle cooperation funds from Spain, the European Union and private funds.
Access to financing by the small-scale agricultural sector is a very serious problem. In the Dominican Republic, the sector has lost the relevance it used to have in previous years. Up to 2014, only 8% went for the agricultural sector - see reports by the Central Bank. A large part of this credit is aimed at mid-sized and large producers. Furthermore, there is a lot of informal economy. In the Dominican Republic, there have sprung up microfinance organizations. Trade and service companies, but they are not designed for the agricultural sector but for micro-sized enterprises of producers who have moved to the urban medium.
Payments according to cash flow (crop cycles)

Climate change and adaptation
Adaptation needs:
- Agricultural insurance
- Water shortage: increasingly longer droughts. As of 2016 there have 3 years of drought
- Application of techniques and measures such as resistant species, soil management, shade, windbreaks. Improved grasses
- Hurricane course.

A.3 IFIs Consultation

CONSULTATION - BANHCAFÉ (Intermediary Financial Institution)
Date: August 24, 2016
Contact: Juventino
Country: Honduras

Experience with CAMBio
BANCAFÉ thought it important to support customers this way, mainly two cooperatives to which loans were granted.
The experience they have had with COMISUYL (mixed Cooperative Subiraa Yoro Limitada) who have 1 year left to complete payments (it has been arranged for a 7 year term). They have had some delays on account of the coffee sustaining rust. They could not sell the coffee harvested as they could not export.
For such cases, alternatives [were provided] when the producer could not cope with any situation beyond its control. They supported them as a bank. It is at those times where the partner needs it. They helped them with funds of their own so that they could continue operating. They continued with their activities, got back on their feet and resumed payments.
COPROCAMOL (coffee producers' cooperative Mujiman Limitada) loan cooperative for coffee production and trading. 812,000 Honduran lempiras. They also had issues with payments due to rust problems. The same operation was followed.
BANCAFÉ received TA from the project. It helped them pretty well to prepare their managers in the area. They also capitalize the bio-award. They used it for training their agents. They went down there to socialize the project of the COMISUYL to explain the basics.
Payment method changed due to their suggestion: coffee production is annual and payment was annual. They changed that.
Climate Change
Areas where the change is affecting a lot the livestock, agricultural sector. Deficit in fodder production. In absence of rain, there are no pastures. People have no irrigation system. To take into account: milk and livestock fattening: to produce, there must be food, and to such end, there must be enough water.
What would you improve?
For the CAMBio program, they were affected by the amount of documents that must be handled for only one credit, administration. Improving follow-up was suggested, visits conducted by the CABEI for supervision.
Even though rates are variable, the other funds are virtually fixed, more stable.

MINISTERIO DE AMBIENTE Y RECURSOS NATURALES
GUATEMALA, C.A.

Ministro

Guatemala August 22, 2016
Oficio No. MI-1070-2016/SASM-jycr

To: The Adaptation Fund Board
c/o Adaptation Fund Board Secretariat
Email: Secretariat@Adaptation-Fund.org
Fax: 202 522 3240/5

Subject: Endorsement for ***Productive Investment Initiative for Adaptation to Climate Change***

In my capacity as designated authority for the Adaptation Fund in Guatemala, I confirm that the above regional project proposal is in accordance with the government's regional priorities in implementing adaptation activities to reduce adverse impacts of, and risks, posed by climate change in the Central American region.

Accordingly, I am pleased to endorse the above project proposal with support from the Adaptation Fund. If approved, the project will be implemented by the Central American Bank for Economic Integration (CABEI) and executed by a Project Coordination Unit within CABEI.

Respectfully,

Dr. Sydney Alexander Samuels Milson
Ministro
Ministerio de Ambiente y Recursos Naturales

MINISTERIO DE AMBIENTE Y RECURSOS NATURALES
MINISTRO

Cc.
International Cooperation and Foreign Affairs Unit, Ministry of Environment and Natural Resources of Guatemala
File

MINISTERIO DE MEDIO AMBIENTE Y RECURSOS NATURALES
UNÁMONOS PARA CRECER

MARN-GAT-02-093 /2016

San Salvador, 18 de agosto de 2016.

ASUNTO: Aval iniciativa proyecto

Señores
Secretaría de la Junta del Fondo de Adaptación
Washington. EE. UU.

Estimados señores:

En atención a nota de Ref. OFRI-436/2016 de fecha 28 de julio del presente año, recibida del Banco Centroamericano de Integración Económica (BCIE), hago de vuestro conocimiento que el Ministerio de Medio Ambiente y Recursos Naturales, como Autoridad Nacional designada de El Salvador ante el Fondo de Adaptación, expresa su aval a la "Iniciativa de Inversiones Productivas para la Adaptación al Cambio Climático", para ser sometido al Fondo de Adaptación en el marco del Programa Piloto de Actividades Regionales.

Aprovecho la ocasión para reiterarles las muestras de mi más alta consideración y estima.

Lina Pohl
Ministra

Kilómetro 5½ Carretera a Santa Tecla, Avenida y Colonia Las Mercedes, Edificios MARN (instalaciones ISTA). Tel.: (503) 2132 9418,
Correo electrónico: despacho@marn.gob.sv. San Salvador, El Salvador, Centro América.

ADAPTATION FUND

Letter of Endorsement by Government

Secretary of Energy, Natural Resources, Environment and Mining

August 16, 2016

To: The Adaptation Fund Board
c/o Adaptation Fund Board Secretariat
Email: Secretariat@Adaptation-Fund.org
Fax: 202 522 3240/5

Subject: Endorsement for ***Productive Investment Initiative for Adaptation to Climate Change***

In my capacity as designated authority for the Adaptation Fund in Honduras, I confirm that the above regional project proposal is in accordance with the government's regional priorities in implementing adaptation activities to reduce adverse impacts of, and risks, posed by climate change in the Central American region.

Accordingly, I am pleased to endorse the above project proposal with support from the Adaptation Fund. If approved, the project will be implemented by the Central American Bank for Economic Integration (CABEI) and executed by a Project Coordination Unit within CABEI.

Sincerely,

SECRETARIA DE ENERGIA RECURSOS NATURALES AMBIENTE Y MINAS MIAMBIENTE
SECRETARIO DE ESTADO
HONDURAS

José Antonio Galdames
Minister of Energy, Natural Resources, Environment and Mines

Despacho de la Ministra
October 31th, 2016
Ref.: DM-JAS/0394.08.16

To: *The Adaptation Fund Board*
c/o Adaptation Fund Board Secretariat
Email: Secretariat@Adaptation-Fund.org
Fax: 202 522 3240/5

Subject: Endorsement for ***Productive Investment Initiative for Adaptation to Climate Change***

In my capacity as designated authority for the Adaptation Fund in Nicaragua, I confirm that the above regional project proposal is in accordance with the government's regional priorities in implementing adaptation activities to reduce adverse impacts of, and risks, posed by climate change in the Central American region.

Accordingly, I am pleased to endorse the above project proposal with support from the Adaptation Fund. If approved, the project will be implemented by the Central American Bank for Economic Integration (CABEI) and executed by a Project Coordination Unit within CABEI.

Sincerely,

Juana Argeñal
Minister of Environment and Natural Resources

MINISTERIO DEL AMBIENTE Y LOS RECURSOS NATURALES
Km.12½ Carretera Norte, frente a Corporación de Zonas Francas
Teléfono 22331112 - 22631994 - 22331916
www.marena.gob.ni

REPÚBLICA DE COSTA RICA
Ministerio de Ambiente y Energía
Despacho del Ministro

ADAPTATION FUND

August 9, 2016
DM-736-2016

To: The Adaptation Fund Board
c/o Adaptation Fund Board Secretariat
Email: Secretariat@Adaptation-Fund.org
Fax: 202 522 3240/5

Subject: Endorsement for ***Productive Investment Initiative for Adaptation to Climate Change***

In my capacity as designated authority for the Adaptation Fund in Costa Rica, I confirm that the above regional project proposal is in accordance with the government's regional priorities in implementing adaptation activities to reduce adverse impacts of, and risks, posed by climate change in the Central American region.

Accordingly, I am pleased to endorse the above project proposal with support from the Adaptation Fund. If approved, the project will be implemented by the Central American Bank for Economic Integration (CABEI) and executed by a Project Coordination Unit within CABEI.

Sincerely,

Edgar E. Gutierrez-Espeleta
Ministry of Environment and Energy

MINISTERIO DEL AMBIENTE Y ENERGIA * COSTA RICA *

Cc: Archivo/Consecutivos

Tel. (506) 2257-5456/2257-0922 ext. 1162 ó 1163 • Fax (506) 2257-0697
Apdo. Postal 10104-1000 San José, Costa Rica
Correo electrónico: ministrominae@minae.go.cr

ADAPTATION FUND

Letter of Endorsement by Government

DCC
DIRECCION DE CAMBIO CLIMATICO

minae

Climate Change Directorate of the Ministry of Environment and Energy

August 9, 2016
DCC-244-2016

To: The Adaptation Fund Board
c/o Adaptation Fund Board Secretariat
Email: Secretariat@Adaptation-Fund.org
Fax: 202 522 3240/5

Subject: Endorsement for ***Productive Investment Initiative for Adaptation to Climate Change***

In my capacity as designated authority for the Adaptation Fund in Costa Rica, I confirm that the above regional project proposal is in accordance with the government's regional priorities in implementing adaptation activities to reduce adverse impacts of, and risks, posed by climate change in the Central American region.

Accordingly, I am pleased to endorse the above project proposal with support from the Adaptation Fund. If approved, the project will be implemented by the Central American Bank for Economic Integration (CABEI) and executed by a Project Coordination Unit within CABEI.

Sincerely,

Andrea Meza Murillo
Climate Change Director
Ministry of Environment and Energy

MINISTERIO DE AMBIENTE, ENERGIA Y TELECOMUNICACIONES
MINAET
DIRECCION DE CAMBIO CLIMATICO
COSTA RICA

Cc: Archivo/Consecutivos

COSTA RICA
Tel: (506) 2253-42-95/ (506) 2253-42-98, Correo electrónico: cambioclimatico@minaet.go.cr
Apdo Postal 10104-1000 San José-Costa Rica

ADAPTATION FUND

MINISTERIO DE MEDIO AMBIENTE Y RECURSOS NATURALES

Dominican Republic

August 09, 2016

To: The Adaptation Fund Board
c/o Adaptation Fund Board Secretariat
Email: Secretariat@Adaptation-Fund.org
Fax: 202 522 3240/5

Subject: Endorsement for ***Productive Investment Initiative for Adaptation to Climate Change***

In my capacity as designated authority for the Adaptation Fund in Dominican Republic, I confirm that the above regional project proposal is in accordance with the government's regional priorities in implementing adaptation activities to reduce adverse impacts of, and risks, posed by climate change in the Central American region.

Accordingly, I am pleased to endorse the above project proposal with support from the Adaptation Fund. If approved, the project will be implemented by the Central American Bank for Economic Integration (CABEI) and executed by a Project Coordination Unit within CABEI.

Sincerely,

Pedro García Brito
Climate Change Director
Ministry of Environment and Natural Resources

MINISTERIO DE MEDIO AMBIENTE Y RECURSOS NATURALES
Santo Domingo, Rep. Dom.
Dirección de Cambio Climático

MINISTERIO DE AMBIENTE

August 31st, 2016
DV- 053- 2016

To: **The Adaptation Fund Board**
c/o Adaptation Fund Board Secretariat
Email: Secretariat@Adaptation-Fund.org
Fax: 202 522 3240/5

Subject: Endorsement for ***Productive Investment Initiative for Adaptation to Climate Change.***

In my capacity as designated authority for the Adaptation Fund Board in Panama, I confirm that the above regional project proposal is in accordance with the government's regional priorities in implementing adaptation activities to reduce adverse impacts of, and risks, posed by climate change in the Central American region.

Accordingly, I am pleased to endorse the above project proposal with support from the Adaptation Fund Board. If approved, the project will be implemented by the Central American Bank for Economic Integration (CABEI) and executed by a Project Coordination Unit within CABEI.

Sincerely,

Emilio Sempris
Viceminister

REPÚBLICA DE PANAMÁ
DESPACHO DEL VICEMINISTRO
MINISTERIO DE AMBIENTE

ES/EC/melida.j

Apartado C 0843-00793 Balboa,Ancón República de Panamá

Teléfono: (507) 500-0855 • www.miambiente.gob.pa

MINISTERIO DE AMBIENTE

Panamá, 22 de agosto de 2016
DV- 050-2016

Señor
NICK RISCHBIETH,
Presidente Ejecutivo
Banco Centroamericano de Integración Económica (BCIE)
En su despacho

Señor Rischbieth:

Tengo el agrado de dirigirme a usted, en relación a su atenta nota OFRI-440/2016 del 28 de julio de 2016, la cual solicita nuestro aval para el desarrollo de la propuesta "Iniciativa de Inversiones productivas para la Adaptación al Cambio Climático", propuesta que se presentará en el marco del Programa Piloto de Actividades Regionales del Fondo de Adaptación.

En ese sentido, en mi calidad de Punto Focal Nacional ante el Fondo de Adaptación del Ministerio de Ambiente, confirmo el aval a la propuesta presentada por el BCIE, ya que la misma busca la implementación de nuevos cambios de adaptación al cambio climático en nuestras producciones agrícolas, brindando un ecosistema más sostenible y resiliente al cambio climático.

Cabe mencionar que este Ministerio de Ambiente se encuentra a disposición para brindar apoyo técnico para la elaboración de la nota conceptual que solicita el Fondo como parte de este proceso inicial.

Finalmente, agradecemos estas iniciativas en conjunto, ya que buscan consolidar las capacidades nacionales y regionales para una completa implementación y ejecución de los temas relacionados con la mitigación al cambio climático, fortaleciendo así nuestras líneas de acción como Ministerio de Ambiente.

Agradezco que toda comunicación relacionada a los temas de cambio climático, se pueda coordinar con la Ingeniera Rosilena Lindo, Directora de Cambio Climático, al siguiente correo electrónico: rlindo@miambiente.gob.pa.

Sin otro particular, aprovecho la oportunidad para reiterarle las seguridades de mi más alta y distinguida consideración.

Atentamente,

REPÚBLICA DE PANAMÁ
DESPACHO DEL VICEMINISTRO
MINISTERIO DE AMBIENTE

EMILIO SEMPRIS
Viceministro de Ambiente

ES/FW/EC

Apartado C 0843-00793 Balboa, Ancón República de Panamá

MINISTERIO DE MEDIO AMBIENTE Y RECURSOS NATURALES
UNÁMONOS PARA CRECER

MARN-GAT-02-093 /2016

San Salvador, 18 de agosto de 2016.

ASUNTO: Aval iniciativa proyecto

Señores
Secretaría de la Junta del Fondo de Adaptación
Washington. EE. UU.

Estimados señores:

En atención a nota de Ref. OFRI-436/2016 de fecha 28 de julio del presente año, recibida del Banco Centroamericano de Integración Económica (BCIE), hago de vuestro conocimiento que el Ministerio de Medio Ambiente y Recursos Naturales, como Autoridad Nacional designada de El Salvador ante el Fondo de Adaptación, expresa su aval a la "Iniciativa de Inversiones Productivas para la Adaptación al Cambio Climático", para ser sometido al Fondo de Adaptación en el marco del Programa Piloto de Actividades Regionales.

Aprovecho la ocasión para reiterarles las muestras de mi más alta consideración y estima.

Lina Pohl
Ministra

Kilómetro 5½ Carretera a Santa Tecla, Avenida y Colonia Las Mercedes, Edificios MARN (instalaciones ISTA). Tel.: (503) 2132 9418,
Correo electrónico: despacho@marn.gob.sv. San Salvador, El Salvador, Centro América.