

PROJECT EVALUATION SERIES

**Final Evaluation of the Project:
"Management of Chimborazo's Natural
Resources"**

**GCP/ECU/080/GFF
GEF ID: 3266**

**FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS
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Project overview

Project name:	"Management of Chimborazo's Natural Resources"
FAO identification:	609364
FAO Project code:	GCP/ECU/080/GFF
GEFSEC Project ID:	3266
Region:	Latin America and the Caribbean
Country:	Ecuador
GEF strategic focal area:	Biodiversity
Objective / GEF-5 Strategic Programme (July 2011–June 2014):	Strategic Objective 2 "Integration of Biodiversity in productive landscapes/seascapes and sectors" Strategic Programme (SP) 4 and 5. SP-4 Strengthening of the policy and the regulatory framework for biodiversity integration. SP-5 Promotion of Biodiversity goods and services markets.
Implementing Agency:	FAO
Executing Agency:	GADPCH – Provincial Government of Chimborazo
Other partners involved:	Ministry of Environment - RPFCH
Execution modality:	OPIM
Estimated start date:	February 2011 (Project Document) – reviewed in October 2011 (PIR)
First transfer date:	11 January 2012
Expected closure date:	January 2016 (Project Document) – extended to May 2018
PPG financing:	USD 100 000 GEF – USD 200 000 co-financing
GEF financing:	USD 3 870 000
GADPCH:	USD 2 230 000
World Bank:	USD 3 200 000
Central Government – Ministry of Environment:	USD 661 600
EcoCiencia:	USD 100 000
COMICH	USD 150 000
Other participants:	USD 100 000
Total planned co-financing:	USD 6 441 000

Acronyms and abbreviations

DAG	Decentralized Autonomous Government
FAO	Food and Agriculture Organization of the United Nations
GADPCH	Decentralized Autonomous Government of the Province of Chimborazo
GEF	Global Environment Facility
LUDP	Land Use and Development Plan
OPIM	Operational Partner Implementation Modality
RPFCH	Chimborazo Fauna Production Reserve

Executive Summary

Introduction

1. This report presents the findings, conclusions and recommendations of the final evaluation of the project "Management of Chimborazo's Natural Resources" GCP/ECU/080/GFF, which began on 1 October 2011¹ ² and officially finished in May 2018. It was forecast that the project would last five years, but it was extended twice³ and lasted almost seven years. The total project budget was USD 10 311 600, of which USD 3 870 000 was funded by the Global Environment Facility (GEF). The remainder was provided as co-funding (whether in cash or in kind) from project partners and their national counterparts.⁴
2. The Project was implemented in Ecuador, one of the 17 most megadiverse countries in the world. The ecosystem aimed to conserve and sustainably manage is the paramo, characterized by its endemism and for the fact it offers important environmental services, particularly the production of water, the capture of CO₂ and tourism.
3. The Project's **Global Environment Objective** is to "Conserve and sustainably manage Chimborazo's paramos and the biodiversity of the mountain ecosystems and to improve local livelihoods through strengthening of policy, legal and institutional frameworks and local awareness, capacities and incentives for participation in planning and sustainable natural resource management". The Project's **Development Objective** is to re-establish and sustainably use the agrobiodiversity and ecosystems of the paramos and to improve food sovereignty of the local indigenous population dependent on Chimborazo's mountain ecosystems applying modern watershed management approaches.
4. The **specific objectives**, formulated as components are: i) conservation of the paramos and of the related upper mountain ecosystems; ii) strengthening of the management and conservation of the Chimborazo Fauna Production Reserve; and iii) strengthening of the capacities of Chimborazo Provincial Government.
5. This evaluation has the dual purpose of accountability and learning. This evaluation analyses the criteria of relevance, effectiveness, efficiency and sustainability/replicability. In addition, the main aspects taken into consideration were: appropriation by stakeholders, risk management and coherence with the other regulatory values of the Food and Agriculture Organization of the United Nations (FAO - inclusiveness and equity, and gender). As a guide, the evaluation developed a matrix of evaluation questions, indicators and methods prepared based on six main questions.
6. The final evaluation began in September 2017. At the request of FAO Ecuador, the evaluation took place at the same time as the final evaluation of the Project: "*Mainstreaming the use*

¹ Project start date reported in the TOR of the Evaluation (paragraph 2), in the 2016 PIR (PROJECT FILE).

² 2011 corresponds to the fifth replenishment of the GEF.

³ First extension of one year with closing date of 30 September 2017 agreed upon by means of amendment Implementing Agreement, signed in November 2016 by representatives of GADPCH and FAO Ecuador, and second extension to April 2018.

⁴ USD 2 230 000 from the Decentralized Autonomous Government (DAG) of Chimborazo, USD 3 200 000 from the World Bank (by means of the Development Investment Project PIDD),⁴ USD 661 600 from the Ministry of Environment of Ecuador (MAE), USD 150 000 from the Confederation of the Indigenous Movement of Chimborazo (COMICH), USD 100 000 from EcoCiencia and USD 100 000 from local organizations.

and conservation of agrobiodiversity in public policy through integrated strategies and in situ implementation in four Andean Highlands provinces" (GCP/ECU/086/GFF - GEF ID: 4777) and the mid-term evaluation of the Project "Conservation and sustainable use of biodiversity, forests, soil and water to achieve good living/Sumac Kawsay in the Napo Province" (GCP/ECU/082/GFF - GEF ID: 4774), both with funding from the GEF, in order to minimize the logistical aspects and maximize the time and use of the evaluations.

Main findings

Overall rating of the project: Moderately satisfactory⁵⁶

7. The Project aimed to resolve high priority problems such as the conservation and sustainable use of the paramo's natural resources, and biodiversity, in accordance with international,⁷ national⁸ and provincial⁹ policies. Project achievements were significant in the province of Chimborazo, such as raising environmental awareness regarding the conservation of water resources, the construction of the regulation in the province to implement compensation mechanisms for environmental services in order to improve the governance of natural resources, the approval of ordinances at provincial and cantonal Decentralized Autonomous Government (DAG) level to protect the biodiversity, storage and optimization of the use of irrigation water by creating committees of irrigators and water for human consumption. However, some of the outcomes set forth under Components 1 and 2 were not achieved, for example, the conservation of endemic biodiversity (including agrobiodiversity), or the implementation of information systems regarding the state of biodiversity in the Chimborazo Reserve. The OPIM (Operational Partner Implementation Modality) managed to execute all of the funds budgeted by GEF and was instrumental in executing more co-financing than planned in the ProDoc. However, it was necessary to extend the Project by almost two years until May 2018 to fulfil these achievements and it was evident that almost 20 percent of the budget (USD 762 647) was executed in the last six months, confirming that implementation was slower than expected and there was not enough time to consolidate the activities performed in these last six months of the Project.

Relevance: *Were the project strategy and actions appropriate for meeting the needs of all the stakeholders involved in matters of conservation and the integrated management of natural resources, including support for implementing policies and programmes by the Government of Ecuador, the GEF 5 (BD2 and BD4) and FAO (particularly SO2)?*

Relevance rating: Satisfactory

8. Project design is coherent with the objectives of GEF,¹⁰ FAO and national and provincial objectives (legal and institutional¹¹ framework) and responds extensively to the needs of

⁵ Range of assessment: Highly Satisfactory (HS), Satisfactory (S), Moderately Satisfactory (MS), Moderately Unsatisfactory (MU), Unsatisfactory (U), Highly Unsatisfactory (HU), Cannot be Evaluated (CE).

⁶ Overall rating of the project in terms of relevance, effectiveness and efficiency.

⁷ CBD, GEF mandate.

⁸ Constitution of the National Biodiversity Republic, Policy and Strategy.

⁹ Land Use and Development Plan (2015), GADPCH Policy.

¹⁰ Biodiversity Convention, GEF guidelines for the Biodiversity Strategy Area and within such its Strategic Objective 2 "Integration of biodiversity in production landscapes/seascapes and sectors" and Strategic Programme (SP) 4 and 5. SP-4 "Strengthening of the regulatory framework and policy for the integration of biodiversity". SP-5 "Promotion of biodiversity goods and services markets".

¹¹ Constitution of Ecuador 2008, Art 83.395, 400. National Plan for Good Living (2009–2013 and 2013–2017) which includes statements on productive development, equity and sustainable management of natural resources. Land

local communities to reduce a high rate of poverty through the promotion of local sustainable development based on the conservation of high micro watersheds and their environmental services as well as the protection of endemic species. In addition, since the Project was designed with the participation of the authorities of the Decentralized Autonomous Government of the Province of Chimborazo (GADPCH), it managed to achieve a strong sense of appropriation and alignment with the Land Use and Development Plan (LUDP) of the GADPCH. In addition, communities consulted showed great acceptance during project implementation.

9. However, the project design does not have a final objective and includes too many objectives and outcomes to be fulfilled (in an isolated manner) taking into consideration that the legal framework for the conservation of agrobiodiversity was not clarified until the approval of the new National Strategy for Biodiversity (2016) and the approval of the Law on Agrobiodiversity and Seeds (2017). In addition, the GADPCH has limited capacity to directly execute large projects and manage a wide range of participants as was evidenced by its decision to assign the Project under the Environment Coordination Committee instead of the Planning Coordination Committee.

Effectiveness: *How effective has the project been in achieving the expected objectives and expected?*

Effectiveness rating: Moderately satisfactory¹²

10. The Project managed to achieve the specific objectives established with regard to its three components. In particular, the fulfilment of the following expected outcomes was verified:
 - ✓ the creation of Management Committees for the five selected micro watersheds with five management plans incorporating productive sub-projects;
 - ✓ the establishment of a pilot compensation mechanism for environmental services and an assessment study of the paramo environmental services;
 - ✓ the preparation of a new management plan to facilitate the improvement of the management of the Chimborazo Fauna Production Reserve (RPFCH) and for the management of the vicuña;
 - ✓ the approval of provincial ordinances and parish resolutions that favour the conservation of the paramo and of biodiversity;
 - ✓ raising awareness among different levels of stakeholders on the need to protect the paramo for its water resources;
 - ✓ the creation of monitoring networks to monitor the quality and quantity of water (SIMOV) and the hydrometeorological network.
11. However, it has only managed to partially fulfil the high-level objectives, in other words the development and environment objectives of the project. The evaluation identified some weaknesses, in particular the establishment of a comprehensive overview as regards land use planning and sustainable development in the province. For example, the full integration of biodiversity conservation, particularly of endemic flora and agrobiodiversity, was not identified in the co-management plans executed in the five micro watersheds or in the new

Use and Development Plan (2015 document); Ecuador Biodiversity Policy and Strategy (2001-2010). Paramo Working Group (PWG).

¹² Range of assessment: Highly Satisfactory (HS), Satisfactory (S), Moderately Satisfactory (MS), Moderately Unsatisfactory (MU), Unsatisfactory (U), Highly Unsatisfactory (HU), Cannot be Evaluated (CE).

management plan of the Chimborazo Reserve and its buffer zone.¹³ In addition, an information system was not implemented and/or harmonized to assess the status of biodiversity (or of the natural resources) within the GADPCH structure. It is also worth mentioning that some infrastructure works had not sufficiently incorporated environmental considerations during their design and/or construction such as, for example, the visitor centre for the Chimborazo Reserve, which does not fulfil the requirements of the Ministry of Environment.

Efficiency: *Have the intervention methods, institutional structure and financial, technical and operational resources and procedures available helped or hindered the achievement of the project outcomes and objectives?*

Efficiency rating: Moderately unsatisfactory¹⁴

12. The OPIM showed that it is a feasible mechanism for the execution of projects funded by GEF by a national entity and that it can capture and execute more co-funding than expected in the ProDoc. It was also found that it made a substantial contribution to the generation of local planning skills in accordance with the LUDP guidelines based on participatory consultations with the different interested parties, including local communities. However, it was necessary to extend the duration of the project by about two years and 20 percent of the GEF funds were executed in the last six months. In addition, some obstacles were found that did not permit ongoing institutional strengthening in the province or of the Ministry of Environment with regard to Component 2. In particular, the high staff turnover in the OPIM, the GADPCH and the cantonal and parish DAGs, the lack of clarification of the responsibilities of the OPIM and of FAO-Ecuador (particularly at the beginning of the Project, after the change in OPIM staff in 2013 and after the Mid-term Evaluation at the end of 2015) and the lack of monitoring of the outcomes and risk management by the OPIM technical team to mitigate the problems associated with the slow execution of the Project in time.

Rating of the Monitoring and Evaluation System: Moderately unsatisfactory

13. The project objectives included the establishment of one system to monitor project components and another relating to the biological and ecological indicators within the GADPCH, (applying the good practices of the system adopted by the Project). However, the Project established a monitoring system focused on the execution of actions. Consequently, it did not generate information on the Project's outcomes and achievements, both at the level of the conservation of species/of the paramo ecosystem and of agrobiodiversity, and to quantify the socio-economic achievements, for example in terms of profitability.

Regulatory values (inclusiveness and participation): *To what extent has the project, in its work with local communities, ensured that all the stakeholders participated in the decision-making process (including the implementation of activities) and the empowerment of farmers in progressing with their rights?*

¹³ The Project reports that conservation areas were set-up but the evaluation found that they result from another programme. In addition, there was no evidence of project contribution for its declaration or regarding its contribution in terms of the protected biodiversity.

¹⁴ Range of assessment: Highly Satisfactory (HS), Satisfactory (S), Moderately Satisfactory (MS), Moderately Unsatisfactory (MU), Unsatisfactory (U), Highly Unsatisfactory (HU), Cannot be Evaluated (CE).

Inclusiveness rating: Satisfactory¹⁵

14. The Project managed to actively involve a high number of stakeholders and local communities. For example, 111 communities participated in the generation of the management and co-management plans based on zoning in five micro watersheds and that included a participatory prioritization of pilot sub-projects through mutual agreement between the GADPCH and the communities. In another example, seven communities of the RPFCH buffer zone participated in the design of the co-management plans and a vicuña¹⁶ working group was created to define by consensus who the beneficiaries would be and how they would be involved. The selection of the final participants was performed in coordination with the GADPCH and another operational project in the area of intervention (PIDD project) to avoid the overlapping of beneficiaries in the pilot projects identified and ensure that the beneficiaries selected agreed to co-fund their implementation (by means of the rendering of manual labour, the delivery of local materials, etc.) and with the aim of promoting their appropriation and the sustainability perspectives.

Regulatory values (gender): *To what extent has the project addressed gender equality issues in its design and contributed to the empowerment of women, young people and other vulnerable groups throughout its completion?*

Gender rating: Satisfactory

15. The evaluation was satisfied that the Project had integrated a gender focus. For example, the women interviewed stated that they played an important role in the Project - taking into consideration that the majority are the heads of their families due to the high migration of men in the area of intervention. Without doubt, this situation facilitated a high level of training of female leaders in the vast majority of communities involved. In addition, it was found that there was substantial participation by female professionals in the OPIM and at various levels of the DAGs. However, the Project did not apply the monitoring of the participation of women or young people aged 15 to 25 in the training events and in the different initiatives implemented, or specific data to determine whether the Project had contributed towards improving their rights such as, for example, their level of access to training and financial resources.

Sustainability: *How sustainable are the outcomes achieved by the project at an environmental, social, financial and institutional level?*

Sustainability rating: Moderately likely

16. The evaluation found that the sustainability perspectives of some activities are favourable given that, on the one hand, the prefecture has extended the contracts of three of the OPIM professionals to continue the Project's priority objectives within the structure of the GADPCH, and on the other hand, the application of the management plans and the application of the payments for environmental services, in the parish DAGs of Quimiag and Candelaria, have achieved co-financing agreements and tie in with the activities to be promoted under the "Biophysical Component" (3.2 of the LUDP). Undoubtedly, in these cases there will be opportunities to continue strengthening institutional structures at community level, such as the co-management committees of said management plans because the GADPCH will continue with campaigns to raise awareness on the importance of conserving the paramo.

¹⁵ Range of assessment: Highly Satisfactory (HS), Satisfactory (S), Moderately Satisfactory (MS), Moderately Unsatisfactory (MU), Unsatisfactory (U), Highly Unsatisfactory (HI), Cannot be Evaluated (CE).

¹⁶ Inter-institutional working group for making policy decisions regarding vicuña.

In other cases, the evaluation is not satisfied that the GADPCH has the sufficient resources to ensure the sustainability of certain activities supported by the Project, such as the case of the maintenance and extension of the works to gather water, the long-term continuation of technical monitoring services to make progress with the sustainable use and conservation of natural resources in the province, or the consolidation of the economic activities performed, particularly in relation to the sale of vicuña wool, the cooperative operation of the refrigeration systems and the sale of milk.

17. In terms of the replicability of the infrastructure projects it was found that the GADPCH and the cantonal and parish DAGs have not been able to assess their cost-efficiency to date¹⁷ in order to prioritize the works to be replicated (in accordance with the LUDP priorities). However, taking into consideration the significant budget cuts in the country since 2016, it is probable that the level of replicability will be low in the next few years due to its high cost. Regarding the replicability of economic activities, the evaluation was not able to determine their level of profitability at this time as they are still being performed. In the majority of cases observed (handicrafts, dyeing of wool, etc.), the indications are that the beneficiaries still require training on topics such as quality control and the sale and marketing of their products and services. However, the opportunities for profitability resulting from activities such as the sale of vicuña wool is more guaranteed due to its high price in the official market (USD 500/kilo for non-processed wool).

Lessons learned

18. The evaluation identified the following lessons learned:

Lesson 1. When there is no clear vertical nor horizontal intervention logic that identifies a sole final objective, it is difficult for the interested parties to reach an agreement for the management and internal monitoring system based on outcomes and tangible changes to adopt, which is important to facilitate learning and policy dialogue among said interested parties.

Lesson 2. The identification of elements that highly concern and interest the institutions, executors and participants (such as the reduction of the amount and quality of water) needs to be viewed as an opportunity to bring together the parties interested in developing a vision of comprehensive landscape management that includes the conservation of its biodiversity (such as the paramo and its water basins). In this way it is possible to give value and recognition to specific elements such as the conservation of endemic biodiversity as "a service" for regulating water, food production, etc.

Lesson 3. Without a comprehensive understanding of the landscape/territory, awareness campaigns in the sub-basins tend to reinforce participation and ownership of completed activities based on misconceptions such as the fact that the management of micro watersheds is to ensure water production (rather than being a life style); differently, awareness raising among interested stakeholders should aim at showing the importance of biodiversity conservation as one of the main topics for which the project received funding..

Lesson 4. The OPIM represents a feasible opportunity to decentralize the management and implementation of GEF projects. However, to improve its efficiency and efficacy it is essential to clarify its role and responsibilities during the design phase of each new project. In addition, it is important to ensure that the authorities involved participate in this process together with FAO in

¹⁷ This refers, here and throughout the text, to the date of the evaluation mission: December 2017.

order to be aware of GEF's policies and principles and how they can be executed within the country's political and legal framework (and/or the area to face within this framework).

Lesson 5. For planning to be adequate, it must take into account the amount of time needed to hire and prepare contracts without delays, particularly for productive projects; also, it is important the duration of the contracts be based on the agricultural and forestry sowing calendar instead of the fiscal calendar. Moreover, under the OPIM modality, planning and coordination need to take into account the amount of time required for state and provincial processes and requirements beginning with project design.

Conclusions

19. The **general conclusion** is that the Project was necessary for the GADPCH and local communities but only partially managed to achieve its objectives. In particular, the conservation and sustainable use of natural resources was mainly focused on the harvesting of water resources in the upper paramo basins and sub-basins and the optimization of their use, the application of a pilot model of compensation mechanisms for the Payment for Environmental Services (PSA). In contrast, the conservation of biodiversity and agrobiodiversity in the paramos was much less evident, partly because there was not enough awareness and recognition of their use and function. Consequently, for example, it was observed that adaptation to climate change using local resistant crops in order to consolidate the food sovereignty and security of the communities involved in accordance with project objectives and the current legal framework (particularly the Law on Agrobiodiversity and Seeds) was not promoted.

Conclusion 1 – relevance. The Project showed significant coherence with different levels of stakeholders at national and international level. It was coherent with the GEF mandate on fitting FAO's Strategic Objective 2 into its Biodiversity Strategy Area (Objectives 1 and 2). At national and subnational level it was coherent with the National Biodiversity Strategy and the Strategic Plan of the National System of Protected Areas of Ecuador and, at provincial level, with the LUDP and GADPCH. In terms of the beneficiary communities, there was a high level of project acceptance as it responded to their needs, including their adaptation to the effects of climate change, particularly a marked reduction of water in the water basins in recent years.

Conclusion 2 – effectiveness. The Project only partially achieved its objectives because despite the completion of the majority of the outputs planned in the components, a weak level of execution was observed to achieve the development and environment objectives, and the tangible changes expected in the ProDoc have not arisen to date. This situation is partly due to the lack of a final objective, the need to perform a high number of activities and works in the last semester of the Project and the lack of a role of responsibilities agreed upon between the OPIM/GADPCH and FAO since the start of the Project. FAO's role in guiding and monitoring the planning and operations of the OPIM and the GADPCH was weak, particularly where there were gaps in the execution, such as in the conservation of biodiversity/agrobiodiversity, the development of economic activities, the establishment of a system to monitor biotic resources and the lack of recognition of the competencies of the RPFCH authorities in directly executing the new RPFCH management plan.

Conclusion 3 – efficiency. The OPIM showed that it is a management approach that can execute GEF funds in a decentralized manner in the subnational institutional infrastructure and convert its funds into the outcomes and tangible changes expected in the ProDoc. However, the OPIM experienced difficulties in executing its funds in time, which resulted in the need to extend the

duration of the Project by two years until May 2018. The absence in the ProDoc of a clear and agreed upon description of the training to be provided by FAO Ecuador regarding the regulation that the OPIM management modality applies was an important factor underlying the slow execution of activities. Other important factors identified were the absence of risk management in planning and the lack of monitoring of results backed up by a communication strategy and an appropriate institutional arrangement geared towards reducing the inter-institutional interaction difficulties experienced (particularly under Component 2).

Conclusion 4 – sustainability. The Project managed to generate favourable conditions for the sustainability of some outcomes, such as the preparation of a legal framework in line with the protection of the paramo (so far one ordinance was approved at cantonal level, as well as several parish resolutions), the handling of vicuñas, the creation of capacities that enable better management of camelids, and the construction of rural infrastructure encouraged the community organization to take charge of the management of its micro watersheds. However, the execution of some outputs completed in the last months of the Project could experience sustainability difficulties as a result of not having a formal subsequent transfer of technical monitoring, and taking into consideration that the Project did not establish some activities to support the conservation and the proper management of the paramo, such as, for example, a system to monitor the outcomes and tangible changes at an environmental, social and economic level.

Recommendations

20. The evaluation team suggests the following recommendations:

Recommendation 1 to the GADPCH and FAO-EC – systematization. Identify, document and disseminate, by means of an inclusive analysis with the final beneficiary parties, the final lessons learned and good practices of the Project, and systematize the most relevant so that GEF and FAO apply them in future projects and in the policy dialogue with the Government of Ecuador. Similarly, collect information regarding the elements that led to the weaknesses, in order to include them in the risk analysis and prevent them.

Recommendation 2 to GEF and FAO (headquarters and FAO Representation in Ecuador) – regarding the objectives, indicators and management of risk in the projects funded using GEF funds. When designing future projects, they should define a clear and coherent intervention logic based on a final objective and observing the vertical relationship between specific objectives (components) as well as the horizontal relationship between such to achieve a comprehensive vision.

Suggestions:

- 1) The objectives must be aligned with GEF and FAO requirements in order to observe the relevant international policies and plans (for example, the Aichi Targets) as well as national and subnational ones (for example, the LUDP) and be realistic pursuant to the duration and resources available. In addition, they should be based on a prior analysis of the needs and capacities of the interested parties and final beneficiaries and specific training regarding the regulation the OPIM applies. The cross-cutting objectives such as, for example, gender equality and governance must be explicit in the vertical objectives.

- 2) The application of indicators must be based on outcomes and tangible changes made that have base lines (geo-referenced where relevant) to facilitate the comprehensive analysis of the Project, and to define targets for specific periods of time.
- 3) The risk assessment must be classified in accordance with GEF good practices (high, medium and low) and clarify the risk mitigation measures classified as high and medium that must be updated during the execution.

Recommendation 3 to GEF, FAO – regarding environmental indicators for the national and subnational public authorities. Environmental indicators must be geo-referenced where relevant (to understand the interaction between the local and global dimensions) and have a dedicated budget to be able to report the contribution of each project to the most relevant international, national and subnational environment objectives. For example, regarding the conservation of the endemic species indicated in section 3.3 of the ProDoc, an indicator should have been established with its base line using sources such as the Red List of threatened species of the International Union for the Conservation of Nature (IUCN), the subjects of conservation identified in the document to support the Management Plan of the RPFCH (contracted at the start of the Project), or the surveys regarding agrobiodiversity performed by the agrobiodiversity project funded by GEF.

Recommendation 4 to FAO (headquarters and FAO Representation in Ecuador) - regarding the capacity of the counterparts. The role of FAO Ecuador must be clarified to perform the rating of the capacities of the counterparts and with their participation design a plan for training the executing entity in the areas where it has weaknesses or limitations. Similarly, the evaluation of the capacities of the counterparts must include a study of the conditions of the context and of GEF and FAO regulations, as well as national and local regulations.

Recommendation 5 for GEF and FAO (headquarters) – regarding the OPIM. Due to the complexity of the requirements and/or of the options that the GEF projects implemented with the "OPIM" modality present during project design, it is important to have an operating manual that clarifies their responsibilities regarding the local authorities so that at the start of project operations GEF and FAO procedures and policies are correctly applied in the planning, implementation and monitoring of the Project.

Suggestions:

- 1) The manual must: i) clarify the responsibilities of the interested parties, particularly of FAO with regard to the authorities responsible for executing the project in the OPIM modality; ii) include the training that FAO should offer (see Recommendation 4) to the local executors so that they apply the manual correctly; and iii) have a subheading profiling the ecosystems included in the Project and the requirements for their conservation (particularly their biodiversity) pursuant to its ecological dynamics and in accordance with GEF and FAO policies on the matter.
- 2) In projects that include production landscapes, developing a comprehensive vision based on a description of how the conservation would be integrated within sustainable development practices is recommended.

Recommendation 6 to the Office of the GADPCH – about the content of future biodiversity conservation and local development programmes. Ensure that GEF projects focus on the integration of biodiversity conservation within production landscapes that promote awareness raising campaigns on the role of agrobiodiversity as a means to increase the resilience and food sovereignty of local communities vulnerable to the effects of climate change.

Suggestions:

- 1) Promote a comprehensive vision of land development and planning that includes the *in situ* conservation of agrobiodiversity by means of an assessment and recognition of local knowledge of peasant men and women and their native technologies.
- 2) Identify the agrobiodiversity that can generate economic income (in accordance with the Law on Agrobiodiversity and Seeds).
- 3) Identify friendly practices for the conservation of the species of flora and fauna in the productive landscapes and promote such by means of consultations with the local producers (particularly women) and other similar projects/countries (within the country and in other Andean countries).
- 4) In addition, for the conservation of biodiversity in Protected Areas and for the development of a comprehensive vision of sustainable development in a landscape/territory (such as the paramos), it is recommended to implement awareness raising campaigns with the aforementioned focus to develop awareness of the intrinsic and instrumental values of agrobiodiversity so that they are fully included and integrated in the development plans (LUDP), the sub-basin management plans and other relevant plans.

Recommendation 7 to FAO Ecuador and to GADPCH – regarding the sustainability and replication of the outcomes. FAO must consider the allocation of dedicated funds to provide technical assistance in the post-closure phase of GEF projects so that beneficiary authorities such as GADPCH apply an internal monitoring and surveillance system (based on outcomes and tangible changes with base lines taken from relevant studies, the ProDoc, etc. and their respective targets) whose objective it is to monitor the development plans (such as the LUDP).

Recommendation 8 to FAO Ecuador and GADPCH – regarding communications. Designing and implementing a communication strategy in accordance with the needs and interests of the different interested parties to ensure the spreading of the materials produced by the Project is recommended. For example, at the level of the local communities, the communication strategy must focus on promoting and optimizing the information centres of the communal areas of the communities as a mechanism to distribute, on a larger scale, the training materials produced by the Project to target groups identified within the communities.

1. Introduction

1. This report presents the findings and conclusions of the Final Evaluation of the large-scale project¹⁸ "Management of Chimborazo's Natural Resources" GCP/ECU/080/GFF, (hereafter referred to as "the Project"), one of the first projects implemented with the "OPIM"¹⁹ modality (Operational Partners Implementation Modality). The Project was signed on 01 October 2011^{20 21} and the official start date was 02 March 2012 with the arrival of the first payment. The Project was expected to last five years, but it was extended twice²² and officially finished in May 2018. The total project budget was USD 10 311 600, of which USD 3 870 000 was funded by the Global Environment Facility (GEF) and the remaining was provided as co-funding (whether in cash or in kind) from project partners and their national counterparts.²³
2. This evaluation took place at the same time as that of two other projects that are part of the GEF portfolio of the Food and Agriculture Organization of the United Nations (FAO) Ecuador: *"Conservation and sustainable use of biodiversity, forests, soil and water to achieve good living/Sumac Kawsay in the Napo Province"* GCP/ECU/082/GFF (Mid-term Evaluation) and *"Mainstreaming the use and conservation of agrobiodiversity in public policy through integrated strategies and in situ implementation in four Andean Highlands provinces"* GCP /ECU/086/GFF (Final Evaluation). Section 1.3 on methodology provides more detailed information on the evaluation process.
3. The Project was implemented in Ecuador, one of the 17 most megadiverse countries in the world. The ecosystem aimed to be conserved and sustainably managed is the paramo, characterized by its endemism and by fact that it offers important environmental services, particularly the production of water, the capture of CO₂ and tourism. The paramo, a neo-tropical ecosystem located along the border of the closed forests and perennial snows,²⁴ is located along mountain ranges or in remote peaks, located between approximately 3 000 and 5 000 metres of altitude. This ecosystem goes from Costa Rica to Peru. The variety of geographic, geological, climatic physiognomic and plant characteristics present in the paramo make it a diverse area under various aspects. At the end of the twentieth century, the area covered by the paramo ecosystem in Ecuador covered 12 650 km, approximately 5 percent of the national area, including 10 percent of Ecuador's flora.²⁵

¹⁸ GEF defines "Full-sized projects" those projects with a GEF donation of over USD 2 million.

¹⁹ The FAO Manual defines the OPIM modality as *"indirect implementation of projects or programmes involving the transfer of funds from FAO to operational partners for the implementation of programmes or projects' components in compliance with the programme/project's objectives defined together and shared. FAO maintains its accountability for the donor and the Government to ensure a proper management of the funds, the technical quality and the achievement of the results"*.

²⁰ Project start date reported in the Evaluation TOR (paragraph 2), in the 2016 PIR (PROJECT FILE).

²¹ 2011 corresponds to the GEF fifth replenishment.

²² First extension of one year with closing date of 30 September 2017 agreed upon by means of amended Implementing Agreement, signed in November 2016 by representatives of GADPCH and FAO Ecuador, and second extension to April 2018

²³ USD 2 230 000 from the Decentralized Autonomous Government (DAG) of Chimborazo, USD 3 200 000 from the World Bank (by means of the Development Investment Project PIDD)²³, USD 661 600 from Ecuador's Ministry of Environment, USD 150 000 from the Confederation of the Indigenous Movement of Chimborazo (COMICH), USD 100 000 from EcoCiencia and USD 100 000 from local organizations.

²⁴ La Flora de los páramos ecuatorianos. Susana León Yáñez. Serie Páramo 7. Biodiversidad 2000.

²⁵ Taken from the Mid-term Evaluation.

4. According to the Project Document (ProDoc), PROMAREN is located in the Ecuadorian sierra in the province of Chimborazo where the majority of the better kept paramos are found.²⁶ These spread across 6 490 km² (656 000 ha), approximately 30 percent of the paramos present in Ecuador, mainly in or around two Protected Areas (PA): Sangay National Park and the Chimborazo Fauna Production Reserve (RPFCH). It is also the second poorest province in the country, where approximately 80 percent of the population lives below the poverty threshold and usually inappropriately manages natural resources. The smallholding, the size of the settled population and the low level of education worsen this problem, since farmers intensely use the land having reduced the use of ancestral cropping practices to respect the fallow periods and selection of the best seeds for resewing (they now sell them). As examples of ancestral practices, it is said that in the past they used a kitchwa word for the grain that are not used for seed (chaqui-zara or the corn's front section with finer grain)²⁷ and are currently used for resewing since they sell coarse grain.²⁸
5. Moreover, the cropping and grazing area has been extended to higher areas, many times at the cost of the paramos which, together with climate change has caused the loss of habitats and biodiversity, an increase in erosion and has also had an impact on water availability. According to the Mid-term Evaluation,²⁹ between 1991 and 1999 29 000 hectares of paramo were converted in crops or pastures, and an additional 53 000 hectares were severely eroded. To worsen the situation, many farmers use important amounts of hybrid seeds and agrochemicals which has increased their dependency on external products.
6. Within the province of Chimborazo, the Project is located in five river micro-basins, mainly covered by important paramos for the production of water and conservation of native species. Figure 1 below shows where these micro-basins are located. PROMAREN covers an area of approximately 114 400 hectares, of which 56 000 hectares correspond to the RPFCH. The area covered corresponds to five river micro-basins (Blanco River, Atapo River, Zula River, Chimborazo River and the water area of Cebadas) which sustain the Chambo River and the Chanchán River. Figure 1 shows the Project's areas of intervention. The total area of the five micro-basins reaches 111 597.33 Ha, of which 65.4 percent (73 067.75 Ha) represents the paramos ecosystem. This area of the paramo represents 5.4 percent of the national total and 29.7 percent of the total of the province of Chimborazo.³⁰ 59.2 percent of the total area of the paramo ecosystem in the five micro-basins (73 067.75 Ha) corresponds to the water area of Cebadas.

²⁶ The Andean Paramos is a mountain endemic ecosystem in the region generally characterized by a cold and humid climate and located between the upper tree line and the perennial snow. The paramos are characterized by their rich, sponge-like soils and vegetation that capture and retain water, acting as a buffer against floods and droughts. They serve as a critical provider of environmental services, supplying water for irrigation, human consumption, and hydropower to many people in the lowlands.

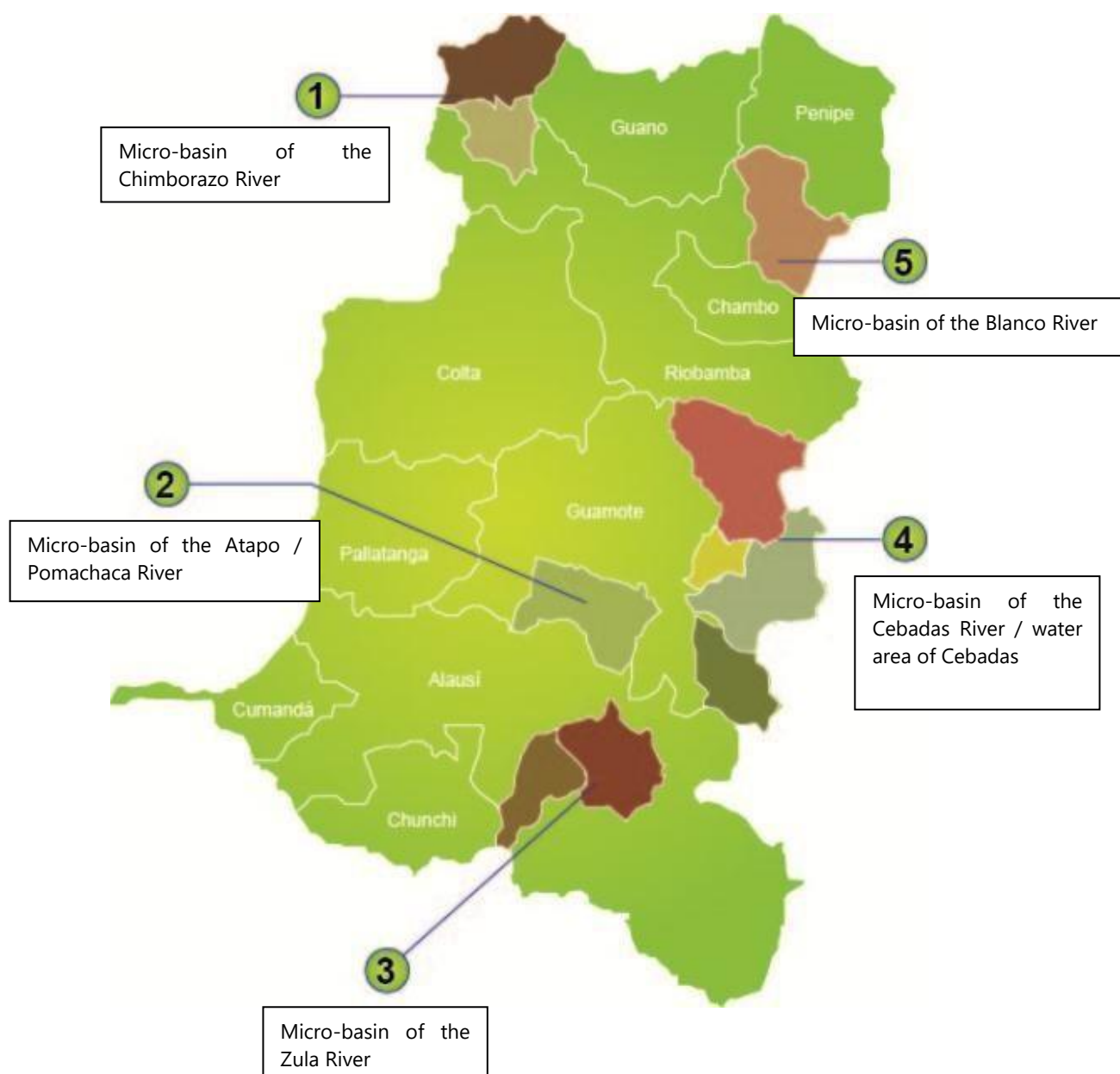
²⁷ Interview to a nonagenarian homegrown of the area who shared stories on the ancestral management practices.

²⁸ Interview to developers.

²⁹ Mid-term Evaluation and consultancy to measure results indicators and the impact of the present Project. 2017.

³⁰ Consultancy to measure results indicators and impact of the present Project. December 2017.

Figure 2: Project location in the province of Chimborazo



1.1 Purpose of the Evaluation

7. This evaluation was referred to in the Project Document and follows GEF requirements for its donations, as well as FAO requirements for its interventions. The evaluation has the dual purpose of accountability and learning and consists of an independent assessment based on evidence of different sources on the Project's relevance for the different key actors, the Project's efficiency in converting its financial resources into products, the results reached compared to those expected and the perspective of sustainability of project activities and results. The evaluation also identifies and documents lessons learned and provides conclusions and recommendations for possible future projects in the country or in other countries with similar contexts involving extension, replication or monitoring using similar approaches or elements.
8. The evaluation took into account the audience of stakeholders interested in project performance and who will be its main users. These are FAO, GEF, the Decentralized Autonomous Government of the Province of Chimborazo (GADPCH), the Government of Ecuador (in particular, the Ministry of Environment), beneficiaries of the interested communities, the Decentralized Autonomous cantonal and parish Governments (DAGs), indigenous organizations and all project partners, both public and of the civil society.

1.2 Scope and objectives of the Evaluation

9. A Mid-term Evaluation was carried out in November 2015. For this reason, this evaluation focuses on the time frame from November 2015 to October 2017. However, the evaluation tried to count on full coverage, reviewing the Mid-term Evaluation and its recommendations and, additionally, reviewing the information related to the initial project phase and the design phase.
10. As for geographic coverage, the Project visited areas in the province of Chimborazo were identified together with FAO Ecuador, the project team in GADCH and the evaluation team, based on the criteria presented in the section on methodology in this document.
11. Compliant with the Terms of Reference (TOR), the evaluation focused on the analysis of the results which the Project contributed to and the possible long-term effects, compared to the expected scope. Additionally, an analysis of lessons learned and limiting factors to the success of the Project in its support to the implementation of public policies was carried out, including the strengthening of capacities to draft conclusions and recommendations for future interventions.
12. In particular, the criteria corresponding to GEF and FAO evaluation policies were analysed. For each of these criteria, an evaluation question was developed, as seen in Box 1.

Box 1: Evaluation criteria and questions

Relevance

Question 1. Were the project strategy and actions appropriate for meeting the needs of all the stakeholders involved in matters of conservation and the integrated management of natural resources, including support for implementing policies and programmes by the Government of Ecuador, the GEF-5 (BD2 and BD4) and FAO (particularly SO2)?

Effectiveness

Question 2. How effective has the project been in achieving the expected objectives and outcomes?

Efficiency

Question 3. Have the intervention methods, institutional structure and financial, technical and operational resources and procedures available helped or hindered the achievement of the project outcomes and objectives?

Regulatory values

Question 4a. To what extent has the project, in its work with local communities, ensured that all the stakeholders participated in the decision-making process (including the implementation of activities) and the empowerment of farmers in progressing with their rights?

Question 4b. To what extent has the project addressed gender equality issues in its design and contributed to the empowerment of women, young people and other vulnerable groups throughout its completion?

Sustainability

Question 5. How sustainable are the outcomes achieved by the project at an environmental, social, financial and institutional level?

Lessons learned

Question 6. What lessons learned from the project, in terms of its design, implementation and sustainability can be used for future interventions similar to that of FAO in Ecuador, in particular of GEF and other donors in general?

13. Important aspects which were also taken into account include:

- national ownership, actors' participation and replicability options;
- identification of potential problems and risk management in the design, barriers and obstacles for the realization and achievement of results;
- identification and gathering of opportunities and analysis of specific lessons and good practices regarding the strategies used and implementation arrangements that can be disseminated among regional and national authorities and actors involved in project implementation and responsible for its future follow-up;
- coherence with other FAO normative values (inclusion and equity, and gender).

14. As for effectiveness, the evaluation focused on the Project's contribution to the achievement of GEF Objectives and FAO Strategic Objectives (SO), to FAO's Country Programming Framework (CPF). In particular, an analysis was carried out for the project's contribution to:

- Compliance with GEF's mandate related to the biodiversity strategy. In particular with the **GEF Biodiversity Focal Area** and its Strategic Objective 2 *"Integration of biodiversity in production landscapes/seascapes and sectors"*, and within this the Strategic Programmes (SPs) 4 and 5: SP-4 *"Strengthening of the regulatory framework and policy for the integration of biodiversity"* and SP-5 *"Promotion of biodiversity goods and services markets"*.
 - Compliance of FAO's Strategic Objectives, mainly SO2 *"Make agriculture, forestry and fisheries more productive and sustainable"*. In particular, Outcome 201 *"Producers and natural resource managers adopt practices that increase and improve agricultural sector production in a sustainable manner"* and 202 *"Stakeholders in member countries strengthen governance – the policies, laws, management frameworks and institutions that are needed to support producers and resource managers – in the transition to sustainable agricultural sector production systems"* and 204 *"Stakeholders make evidence-based decisions in the planning and management of the agricultural sectors and natural resources to support the transition to sustainable agricultural sector production systems through monitoring, statistics, evaluation and analysis"*.
 - Compliance with the CPF Priority Areas. **Priority Area 1** *"Contribute to the strengthening of public policies in order to ensure food sovereignty"*, in particular Result 1.2 *"The access to field irrigation and the irrigation water supply for small and medium-sized producers increased; mostly for community system through the field irrigation's plan"* and **Priority Area 4** *"Contribute to the consolidation of public environmental policy through the conservation, the assessment and the sustainable management of biodiversity and natural resources"* in particular Result 4.1 *"The areas for preservation and protection purposes in the national territory improved"*.
15. The main users of this evaluation report are GEF, FAO and GADPCH as implementers, the Government of Ecuador (in particular the Ministry of Environment, the DAGs involved in the project and the Co-management Committees), interested communities, indigenous organizations, project partners (public and civil society) who have been involved in project design.

1.3 Methodology

16. As already mentioned in the introduction, the evaluation was carried out together with other projects of the GEF portfolio of FAO Ecuador: *"Mainstreaming the use and conservation of agrobiodiversity in public policy through integrated strategies and in situ implementation in four Andean Highlands provinces"* GCP /ECU/086/GFF (Final Evaluation) and *"Conservation and sustainable use of biodiversity, forests, soil and water to achieve good living/Sumac Kawsay in the Napo Province"* GCP /ECU/082/GFF (Mid-term Evaluation). These three projects have been evaluated by the same team to maximize the evaluation process. The final product of each evaluation is an independent evaluation that follows GEF requirements.
17. This measure was adopted in agreement between the FAO Office of Evaluation (OED), the FAO Office in Ecuador and the GEF team in FAO to maximize the logistical aspects (both field visits and meetings with the interested parties) and take advantage of the complementarity of the team members' technical skills. In particular, each team member evaluated a specific project and has therefore been responsible for preparing the draft evaluation report. At the same time, each team member has provided support to colleagues in the evaluation of specific products of other projects which fall within his/her main area of expertise. One of the three members, the person in charge of the evaluation of project GCP/ECU/086/GFF. *"Mainstreaming the use and conservation of agrobiodiversity in public policy through*

integrated strategies and in situ implementation in four Andean Highlands provinces" acted as team leader and together with the Evaluation Manager they coordinated the team.

18. Methodology was applied based on the joint evaluation plan and was therefore applied to the three evaluations. Even though the evaluation tools and some sub-questions were specifically designed for each project based on its logical framework and type of evaluation (final or mid-term), the evaluation team used the common methods and tools when possible to maximize the use of resources.
19. The evaluation adopted a consultative and transparent approach throughout the evaluation and was participatory to triangulate evaluation findings and promote its understanding among the main actors, with the idea that they could be useful for future interventions. The spirit of the evaluation was of collective learning, based on an identification and analysis of the processes, activities and indicators to determine what worked well and what requires more work or changes, always looking at the final goal. In particular, the process was implemented in close collaboration with the FAO Office in Ecuador, the Project's Steering Committee and the FAO evaluation team for Strategic Objective 2.
20. Secondary information was provided by project implementers, although some additional information was given by people interviewed or by project recipients such as the Ministry of Environment. Since a series of project products were ongoing during the mission and they were expected to be delivered at the end of December 2017, it was decided to extend the delivery time of the present report to give project implementers the opportunity to include such products in the analysis.
21. To guide the evaluation, the guidelines of the United Nations Evaluation Group (UNEG) Norms and Standards and FAO Guidelines³¹ were used. The evaluation team adjusted the methodology to each specific project, integrating the GEF criteria and requirements set forth in the new GEF Guidelines³² for final evaluations. In this framework, this Final Evaluation assessed the Project in line with the GEF rating scheme (see Appendix 6) and also presented an evaluation of project monitoring, implementation and execution, and financing and co-financing project data, according to Annex 3 of the GEF Guideline previously mentioned.
22. The evaluation followed an approach based on the Theory of Change, with emphasis on the results. For this reason, a project Theory of Change was developed to report on the analysis of the strategy and its design. Through the Theory of Change, the goal was to capture the causal pathway among inputs, the expected products detailed in the framework of the project results, the results it had to contribute to and the conditions needed for it to happen.
23. At the beginning of the evaluation process, a map was developed of the interested stakeholders with the goal of planning the data collection phase and making sure all the partners were identified. To answer the key questions, an evaluation matrix was developed (see Appendix 5) where the indicators, evaluation criteria, sources of information to obtain

³¹ 2013 FAO Policy on Gender Equality - Attaining Food Security Goals in Agriculture and Rural Development; 2011 FAO Policy on Indigenous and Tribal Peoples; 2010 Programme Committee. Corporate Strategy on Capacity Development.

³² Guidelines for GEF Agencies in conducting Terminal evaluation for Full Size projects, April 2017. The GEF guideline is available here: <https://www.gefio.org/sites/default/files/ieo/evaluations/files/gef-guidelines-te-fsp-2017.pdf>

the indicators, methods and tools used to answer the GEF criteria requirements were identified.

24. In general, the following methods and sources were used to gather primary and secondary data to answer the evaluation questions:
- Review of project documents, country semi-annual and biannual progress reports, strategic national documents, DAGs of the organizations and institutions involved related to agrobiodiversity; of technical reports and FAO support missions, and any other identified during the evaluation.
 - Semi-structured interviews with key informants, interested parties and participants at central and local level, based on interview protocols developed by the evaluation team.
 - Group interviews with Project participants and interested parties, including indigenous communities, also supported by interview protocols (see Appendix 1 for the list of people interviewed).
 - Direct observations during field visits (see Appendix 4 for the agenda mission).
 - Questionnaire to stakeholders in non-visited areas of the Project.
 - Evaluation team's technical knowledge and experience.
25. At the beginning of the investigation phase, the interview protocol was developed according to the type of actor to be interviewed and the topic to be addressed. Special attention was given to appropriately approaching women and other disadvantaged groups.
26. As for gender analysis, an evaluation was conducted of the project's contribution to the five objectives presented in the FAO Policy on Gender Equality.³³ The framework of the FAO Office of Evaluation (OED) developed for this reason was used. The gathered information was triangulated supporting the validity of the evidence, and its analysis supported conclusions and recommendations.
27. As for the evaluation's work in the local communities, the evaluation team used the new Free, Prior and Informed Consent Manual³⁴ (FPIC) as logical framework, taking into account that it was developed two years after the beginning of the Project. Together with the FAO Policy on Indigenous and Tribal Peoples, this document was used as reference for FAO's approach and process to reach consent among the local communities' beneficiary of a project.
28. Since the Project's specific goals include the development of abilities both at the level of the enabling environment and at individual level, FAO's Capacity Development Framework³⁵ was the basis for the evaluation of measures, approaches, performance and result of the activities

³³ FAO Policy on Gender Equality <http://www.fao.org/docrep/017/i3205e/i3205e.pdf>

³⁴ The FPIC Manual and the FAO Policy on Indigenous and Tribal Peoples are available at the following links respectively:

<http://www.fao.org/3/i6190e/i6190E.pdf>

http://www.fao.org/fileadmin/user_upload/newsroom/docs/FAO_policy.pdf

³⁵ FAO Framework on capacity development

http://www.fao.org/fileadmin/user_upload/newsroom/docs/Summary_Strategy_PR_E.pdf

<http://www.fao.org/capacity-development/en/>

implemented during the project for the development of abilities. The interview protocols will try to measure the beneficiaries' level of knowledge, attitudes and practices.

29. To answer the question of sustainability, there was an assessment of four main criteria which usually determine the sustainability of a change: i) beneficiary ownership; ii) resources availability; iii) appropriate capacity of the interested actors; and iv) favourable institutional and social environment (with regard to FAO's framework for capacity building). As for the appropriation of beneficiaries, the strategy used by the Project to access local and international markets was also assessed.
30. As already mentioned in the introduction, this is one of GEF's first projects implemented by FAO through the "OPIM" modality. Following GEF requirements, the Project's implementation and execution agreements were also assessed, and in this framework the team's analysis focused on the OPIM modality and in which ways it favoured project achievement, the results reached and sustainability in terms of appropriation by the DAG of Chimborazo and other interested partners
31. The phases to conduct the evaluation were:
 - i. Preparatory work based on the development of an evaluation matrix (rebuilding of the theory of change) in close cooperation with FAO.
 - ii. PROMAREN mission, which considered interviews in Quito together with the other projects' teams from 15 to 20 October, and independent field visits from 22 to 31 October 2017 in the province of Chimborazo.
 - iii. Introduction of preliminary findings in the Chimborazo DAG for the Project's Coordinator and Technical Leader and discussion on the structure of the Theory of Change.
 - iv. Power points for individual presentations of PROMAREN's initial findings to project implementers and officials in the FAO Office in Ecuador and group presentations of the three projects to the FAO Representation in Ecuador, Rome and the GEF-FAO Rome liaison office.
 - v. Preparation of the Draft Document, reviewed by the team leader, and the official Strategic Objectives in Rome. Draft evaluation report.
 - vi. Review and conclusion of the report based on the comments received by FAO Ecuador, GEF, the Government and other interested parties.

1.4 Limitations

32. The field mission took place in favourable climate conditions for the field visits and received the necessary support for accompaniment, mobilization and organization to conduct the planned interviews and group meetings. Nevertheless, the evaluation faces some limitations to its implementation:
 - Limited time during the first week of the evaluation to ask all the planned specific questions on PROMAREN during the interviews in Quito with the other project evaluators on Agrobiodiversity, and in Napo.
 - Difficulty in carrying out the project's final evaluation together with the other evaluations mentioned above due to the many activities planned in the last semester of the Project until May 2018.

- Difficulty in accessing collected and timely information for different reasons: i) not all products were provided at the beginning of the evaluation, and this required time to obtain them later; ii) at the beginning of the evaluation, 20 percent of funding was still missing, the executors did not send to the evaluator the products right as they received them and approved them, and some of these products, such as the systematization of the evaluated project, were delayed in being delivered by the contractor (still not ready in April 2018); iii) the project did not have the collected information in various areas, but only in progress reports or reports of the Audit Coordination which in some cases made its analysis impossible; and iv) difficulty in not interviewing some key people for project implementation due to the high staff turnover during the first years of implementation.

1.5 Structure of the Report

33. The structure of this report follows the requirements found in the TOR (Annex 1). Chapter 1 presents general information on the project; Chapter 2 presents its background and context, and an analysis of the Theory of Change; Chapter 3 presents the evaluation findings divided by evaluation criteria and questions for each, and lessons learned; lastly, Chapter 4 presents conclusions and recommendations.

2. Project background and context

2.1 Project background

34. PROMAREN was initially designed by the World Bank and the Provincial Government of Chimborazo. However, due to the regulations of the national Government, GADPCH FAO was selected as the implementing agency because of its long history of engagement. Being a GEF project, participation and coordination with the Ministry of Environment³⁶ was needed, which had to be included for Component 2 related to the protection of the Chimborazo Fauna Production Reserve.
35. The provincial authority kept PROMAREN as the PIDD's Programme main co-funder. This was the only Project financed by the World Bank which remained in the country after the change of Government in 2009. Such decision made it possible to identify coordination mechanisms in the ProDoc, as well as interdependence in the achievement of some PROMAREN results.
36. Before the Project, the regional project "Paramo Andino" (United Nations Environment Programme (UNEP)/GEF) implemented by the Consortium for the Sustainable Development of the Andean Ecoregion (CONDESAN) and the project "Financial Sustainability for the National Protected Area System (UNEP/GEF) were identified in the ProDoc for coordination with PROMAREN. Additionally, coordination with the regional project "BioAndes" financed by the Swiss Agency for Development and Cooperation (SDC) and implemented by the EcoCiencia Foundation were identified; this gave special attention to the conservation and management of groundwater. The evaluation also identified projects related to the management of natural resources in the province which were financed by the Japanese International Cooperation Agency (JICA) and the Korea International Cooperation Agency (KOICA), as well as an initiative of different non-governmental organizations (NGOs), international organizations, sectorial ministries, municipal and parish governments, mainly with emphasis on integrated rural development and poverty alleviation.³⁷ With regard to the aforementioned initiatives, the Project's relevance was summarized in the ProDoc as following: *"The project will ensure the focus on the landscape and will operate through belts located at different altitudes over 3.200 meters above sea level. It will give special attention to the ties between different altitudinal tiers and the interface between the systems of land's use and its altitude, the conservation of paramos and the livelihoods (mostly the financial ones) of local communities"*.³⁸

2.2 Project objectives

37. Two general objectives and three specific objectives were identified in the Project Document. The general objectives are:
- ✓ **Global Environment Objective,**³⁹ "To conserve and sustainably manage the Chimborazo's paramos and the biodiversity of the mountain ecosystems and to improve local livelihoods through strengthening of necessary policy, legal and institutional

³⁶ This welcomes the Ministry of Environment's focal point.

³⁷ Project Document.

³⁸ Project Document.

³⁹ The ProDoc clearly states the main objective's name as Global Environment Objective, whilst the Logical Framework simplifies it to environmental, even though it is clear that the reason for belonging to GEF and therefore the GEF eligibility principle for its donations is that the Project has global benefits, meaning benefits for the planet.

frameworks and local awareness, capacities and incentives for participation in planning and sustainable natural resource management".

- ✓ **Development Objective**, meaning re-establishing and sustainably using agricultural biodiversity, paramo ecosystems and improving the food sovereignty of independent local indigenous populations of the mountain ecosystems of Chimborazo, applying modern approaches for the management of basins.
38. To reach these objectives, the following **strategic objectives** were defined as project components:
- ✓ **Conservation of the paramos and the related ecosystems of high mountains** through a participatory planning of the management of water basins, organizational and institutional strengthening, pilot interventions, compensation mechanisms for environmental services and optimization and rationalization of water usage in the province (Component 1).
 - ✓ **Strengthening of the management and conservation of the Chimborazo Fauna Production Reserve** through the production and negotiation of a national plan for the management of vicuña in Ecuador, a study of the Chimborazo Reserve and its buffer zone, of the development and implementation of the co-management plans and development of local capacities (Component 2).
 - ✓ **Strengthening of Capacities of the Chimborazo Provincial Government** for the Sustainable Management of Natural Resources, with special attention to paramos (Component 3).

2.3 Theory of Change

39. The ProDoc does not present an outline of the Theory of Change, but it has the elements needed to prepare it for the evaluation. Among these elements, there are: i) the GEF mandate; ii) identification of global objective(s); iii) a development objective; iv) intermediate results; and v) project results (components that could also be used as intervention strategies within the outline). The evaluation prepared a draft of such outline which was discussed and given to the implementers and to the project officer in FAO Ecuador, and their comments were included in the present version.
40. Following the logic of the projects financed by GEF, the preparation of the Theory of Change was in line with GEF and FAO's mandates, and the local objectives of improving the quality of life with the results established in the Project's intervention logic (project's logical framework).
41. The Theory of Change can be found in Appendix 2. Pivotal in the Theory of Change is the conservation of biodiversity and of the paramo ecosystem in conditions that can ensure its gradual evolution and adaptation to climate change, perfectly in line with the GEF Biodiversity Strategy Area. Moreover, the conservation of biodiversity and water resources meets FAO's Strategic Objectives 1 and 2, meaning reducing hunger and rural poverty and promoting more sustainable agriculture, with the goal the raising environmental awareness, creating a coherent legal framework and an institutional organization that makes it possible to support better quality of life of local populations.

3. Evaluation findings

3.1 Relevance

42. The relevance criterion regards Evaluation Question 1: *Were the project strategy and actions appropriate for meeting the needs of all the stakeholders involved in matters of conservation and the integrated management of natural resources, including support for implementing policies and programmes by the Government of Ecuador, the GEF-5 (BD2 and BD4) and FAO (particularly SO2)?*⁴⁰

Finding 1: Project relevance is considered **satisfactory**. The evaluation confirmed with stakeholders at national, provincial and local level that the Project is still relevant as it is in line with the country's Constitution, policies, strategies and environmental plans at national level; it is also in line with its framework at sectoral and provincial level, in particular the National System of Protected Areas (NSPA) and GADPCH, mainly its Land Use Development Plan (LUDP). Moreover, it responds to the current needs of local communities to preserve high micro-basins where environmental services are decreasing as this threatens the opportunity to foster local sustainable development and reduce the high poverty rate. The three project components also confirm that project design is coherent with the GEF and FAO strategic objectives. However, project design does not have a clear final objective; it refers to a global environmental objective, a development objective and three specific objectives (components), which are hard to place within a vertical and horizontal intervention logic with a final objective. Therefore, the evaluation noted that the Project can be given different interpretations by the various stakeholders involved.

43. Following, are the elements that highlight coherence and weaknesses at different levels.

Coherence with CBD, GEF and FAO global objectives

44. As for relevance to international commitments, the ProDoc considers it to be coherent with the Convention on Biological Diversity (CBD)⁴¹ and states the Project will contribute to the fulfilment of the objectives of the Convention 2010.⁴²
45. As for the relevance to GEF's mandate, the Project Document was prepared during the fourth replenishment of GEF-4,⁴³ but its implementation coincided with replenishments GEF-5 and GEF-6.⁴⁴ In all these stages, the Project has been coherent with its focal areas that correspond to those of the CBD aforementioned. In particular, the Project is in line with the GEF Biodiversity Focal Area which focuses on "*Conservation and sustainable use of biodiversity and the maintenance of ecosystem services*"
46. For example, the objective of Project Component 1 is currently in line with the objective of GEF-6 of reducing the threats to biodiversity (BD-2). Component 1 has the objective of conserving the paramo ecosystem. In other examples, Component 3 has the objective of integrating biodiversity conservation in the management of natural resources in the

⁴⁰ SO2: Make agriculture, forestry and fisheries more productive and sustainable in the context of a constant pressure of natural resources due to an increase in the competition over natural resources, environmental deterioration and climate change.

⁴¹ Ecuador ratified its commitment to the CBD on 23 February 1992.

⁴² In particular, the objectives related to Focal Area 1: Reducing the rate of loss of the components of biodiversity (Objectives 1-3) and Focal Area 3: Addressing the major threats to biodiversity (Objectives 5-7).

⁴³ GEF-4.

⁴⁴ It started the same year as Replenishment GEF-5-2011 to 2014, GEF-6 2015 to 2018.

regulatory frameworks and development plans in the province of Chimborazo, which are fully in line with the GEF-6 fourth objective (BD-4).⁴⁵

47. It is also coherent with FAO's mandate as project focus, strategies and results are in line with Strategic Objective 2: *"Make agriculture, forestry and fisheries more productive and sustainable"*. Moreover, the Project contributes to reaching other Strategic Objectives, such as SO1: *"Help eliminate hunger, food insecurity and malnutrition"*, SO3: *"Reduce rural poverty"* and SO4: *"Enable inclusive and efficient agricultural and food systems"*. At the same time, it is coherent with the CPF Priority Areas 1 and 4⁴⁶ and FAO's cross-cutting issues as Gender, Equality and Inclusion.⁴⁷

National, provincial and local coherence

48. The Project is relevant to the country's Constitution⁴⁸ and the current priorities of the Government of Ecuador, which has identified the country's paramo ecosystems as a priority for conservation. In fact, the protection of paramos is mentioned in the national legislation,⁴⁹ it is included in the National Strategy for Biodiversity and its Plan of Action 2016-2021⁵⁰ and it is coherent with the National Sustainable Development Strategy (NSDS).⁵¹ It also supports the implementation of the Law on Waters (2014) which contemplated the protection of water sources in the paramos and upper basins⁵² and the Law on Agrobiodiversity and Seeds (2017), even though it is clear that the Agricultural Policy 2015-2025 needs to be updated as the Government keeps promoting the distribution of alternative crops (seeds and fertilizers kits) that are not in line with biodiversity conservation. Additionally, it is worth mentioning that the Project is pertinent to international initiatives as, for example, the Mountain

⁴⁵ GEF-6 Programming Directions, p.20. www.thegef.org/sites/default/files/documents/GEF-6%20Programming%20Directions.pdf

⁴⁶ FAO CPF 1.2 The access to field irrigation and the irrigation water supply for small and medium-sized producers increased; mostly for community systems through the field irrigation's plan. 4.1 Improve the areas for preservation and protection purposes in the national territory.

⁴⁷ FAO Policy on Gender Equality www.fao.org/docrep/017/i3205e/i3205e.pdf; FPIC Manual www.fao.org/3/i6190e/i6190E.pdf and FAO Policy on Indigenous and Tribal Peoples www.fao.org/fileadmin/user_upload/newsroom/docs/FAO_policy.pdf

⁴⁸ In particular, Título VII: Régimen del Buen Vivir, Second Chapter: Biodiversidad y recursos naturales (Artículos 395-415).

⁴⁹ Constitution of Ecuador 2008, Art 83.395, 400. National Plan for Good Living (2009–2013 and 2013-2017) that presents statements on productive development, equity and sustainable management of natural resources. Land Use and Development Plan (drafted in 2015); Politics. Paramo Working Group. Forestry Law, Organic Code on the Environment that includes articles on the protection of fragile ecosystems, among which the paramo, wetlands. Protection Code where the protection from 3 200 metres above sea level was established. The old and new Law on Water protects the river banks; the new Law is different with regard to administration (licences) and established priorities such as drinking water, irrigation, etc.

⁵⁰ It considers the paramos as a high priority ecosystem for conservation and as a favourable ecosystem for the development of innovative systems (CES) because of water production and storage services that provide for agricultural production and human consumption.

⁵¹ Ecuador's Biodiversity Strategy (2001–2010): i) helps the planning of the use of the land, taking into account the fragile ecosystems, their effect on local economies and their global importance; ii) promotes the development of participatory planning for the sustainable use of natural resources; iii) designs and develops innovative programmes to coordinate the traditional practices of indigenous peoples with the management of critical ecosystems; and iv) supports and invests in programmes for the promotion of community participation in the sustainable management of biodiversity.

⁵² The Law on Water established water safety areas where it is not allowed to perform productive or extractive activities which jeopardize the water sources located in glaciers, snowy areas and others, for which mechanisms as communities, among others, are established to request that the National Environmental Authority sets such restrictions (Art 19).

Partnership⁵³ that counts on a work group that established and proposed national policies for the management and conservation of paramo ecosystems in Ecuador.

Coherence with the National System of Protected Areas

49. The Project is coherent with NSPA policies aimed at biodiversity conservation in reserves, in the buffer zones and outside the protected areas, such as the Sustainable Financial Strategy for the National System of Protected Areas that aims at financial sustainability and effective management of RPFCH through the co-management and local participation in the benefits of biodiversity services.⁵⁴

Provincial coherence

50. The Project comes from the preparation phase with a strong empowerment of provincial authorities, who were its managers and then its implementers through OPIM. Different stakeholders recognize that the Project was shaped from previous experiences and pushed by GADPCH with support from the World Bank, institution that has to reduce its actions due to the country's political decisions.⁵⁵ Currently, the approach on the conservation and sustainable use of biodiversity is highly coherent with the LUDP 2015 to 2025⁵⁶ even though, as for biodiversity conservation, the provincial government has specific actions aimed at its conservation,⁵⁷ and on the other hand the "Productive Development Coordination" Department promoted the use of improved kits of seeds and pasture together with the Ecuadorian agriculture and livestock policy mentioned above.⁵⁸
51. Additionally, it is coherent with the conceptual framework of the Policy called "Minga for Chimborazo".⁵⁹ According to the ProDoc, there is coherence with provincial development since the Project emphasizes the sustainable management of the environment (including water, forests and the Andean fauna management, and other types of natural resources),⁶⁰ along with pilot strategies to reduce poverty, ensuring local benefits. The Project was expected to help GADPCH in the integration of biodiversity considerations in the planned and ongoing development programmes in every sector, with special attention to the sub-basins of paramos.

⁵³ The Ministry of Environment promotes the International Mountain Partnership to foster cooperation and exchange of experiences among the mountain communities, local and national governments of mountain ecosystems and local sustainable livelihoods, including paramos.

⁵⁴ The projects look for economic incentives through tourism and sharing the benefits of the fibre of vicuña in exchange for a conservation commitment on behalf of the communities. Reference Mountain Partnership Strategy and Governance 2014-2017. The International Partnership for Sustainable Development in Mountain Regions was established in 2002 during the World Summit on Sustainable Development in Johannesburg, with the support of the Governments of Italy and Switzerland, and with UNEP and FAO.

⁵⁵ Later, the GADPCH chose FAO as the Agency to support OPIM with the implementation of the Project.

⁵⁶ The LUDP includes specific actions for Water which include the water management for river basins and sub-basins and for fragile ecosystems, environment services and the land under conservation or environment management.

⁵⁷ For example, GADPCH has the KOICA training initiative to develop the tuber seed bank and an agreement with the National Agricultural Research Institute (INIAP) to train farmers on seed conservation in a bio-knowledge centre established with the support of the agrobiodiversity project (financed by GED) and which was evaluated at the same time as this project.

⁵⁸ According to GADPCH, improved pasture is promoted to support the conservation of the paramo with the aim of supporting the production of daily cattle and broiler in the paramo ecosystem.

⁵⁹ The Minga for Chimborazo set out the joint effort of authorities, executive power and citizenship for all projects.

⁶⁰ The Project identifies the paramo and vicuña as conservation objectives (reintroduced species).

52. Project design took into account the environmental conditions related to the context of Chimborazo, meaning the problem of paramos and of the reduction in the volume of water facing a generalized smallholding, as the potentials of the area - for example the attraction of the Reserve, the railway and the sector of the Nariz del Diablo (Devil's Nose) which saw about 160 000 total visitors in 2015.

Local coherence

53. Project design responds to the need of ensuring food security, facing the problem of water reduction in the paramos and in the highlands, and decreasing the high poverty rate for the implementation of economic solutions destined to the conservation of natural resources and to improve their quality of life.

Coherence weaknesses

54. The inclusion of various objectives without a clear final objective represented a weakness in project design as it did not make it possible to establish vertical and horizontal coherence in the intervention logic, which led to different understandings of the objective⁶¹ and project expectations by the interested parties. Additionally, the inclusion of various objectives has led to a series of activities considered to be very risky by the evaluation since the institutional infrastructure in the province of Chimborazo has a history of low capacity of absorbing resources and management of different interested parties. Indeed, such risk was identified in the ProDoc (Annex 6), without addressing the measures needed to reduce such risks during the implementation phase.⁶²
55. This weakness has been noticed mainly with regard to the conservation and sustainable use of agrobiodiversity (development objective) where the evaluation found that the concept of biodiversity has been replaced by sustainable conservation and development of agroecology within the territorial management plans. In other examples, the performance of activities with Component 2, aimed at strengthening the management of RPFCH, presented various interpretations mainly due to a lack of understating of its geographical relevance in the intervention logic.

Relevance to the OPIM implementation modality

56. This modality is relevant to the Paris Declaration (2005), as well as its current Agenda and GEF and FAO's policies to generate management capacities at local level with the aim of encouraging the appropriation of project results by GADPCH. GADPCH is responsible for environmental management at provincial level through the LUDP. However, the ProDoc did not specify the importance of applying an updated manual on OPIM's operation or FAO's specific role in planning, implementing and monitoring the project. For example, risk management was not included, nor was a training and monitoring plan to facilitate

⁶¹ The general objectives (global, as stated in the ProDoc, and development) are broad statements including various objectives as well as work strategies. The term benefits or global objectives come from the same conceptual framework of the GEF Fund. This Fund was created to solve global problems, meaning those affecting the planet and whose resolution must include all countries. Instead, the local problems are the countries' responsibility.

⁶² "Conserve (**conservation objective**) and sustainably manage (**sustainable management conservation**) the Chimborazo's paramos and the biodiversity of the mountain ecosystems and improve local livelihoods (local objective) through (**strategies on how to reach the objectives**) strengthening of necessary policy, legal and institutional frameworks and local awareness, capacities and incentives for participation in planning and sustainable natural resources".

coordination with GADPCH's LUDP planning and use to maximize pre- and post-project implementation.

3.2 Effectiveness

57. The effectiveness criterion regards Evaluation Question 2: *How effective has the project been in achieving the expected objectives and outcomes?*

Finding 2: The Project's general effectiveness has been **moderately satisfactory**. The evaluation found that the Project fulfilled a large number of expected results to achieve the specific objectives of the three project components. However, it was not possible to register the environmental and developmental results which could have been reached due to the slow mechanisms among each component's actions and results and, therefore, among the high level objectives, the lack of an integrating and systematic understanding of the paramo and⁶³ in land planning, and the data report of other programmes without establishing the Project's contribution; moreover, the Project did not work for any of the global and development objectives defined in the ProDoc.⁶⁴

58. As for the Project's significant results, OPIM reports that a total of 111 communities took part in the Project's different activities. The evaluation confirmed that the Project greatly surpassed the initial target of 30 communities expected in the ProDoc. Furthermore, the five management plans for the five micro-basins cover a total area of 103 830 ha,⁶⁵ much more than the 58 000 ha expected. However, the weak monitoring system aforementioned resulted in the monitoring of the total beneficiary communities and area covered for the different activities under the three components. Therefore, the evaluation was not able to separate the achievements by specific action under each project component (see Appendix 8).
59. Section 3.2.1 presents an analysis of the Project's immediate products and results for each objective by component; while section 3.2.2 presents an analysis of its contributions to the achievement of the global objectives of environmental development.⁶⁶

3.2.1 Immediate products and results for each component

Component 1 – Conservation of paramos and associated ecosystems

60. Component 1 had the objective of improving the management of paramo in five micro-basins of the Chambo and Chancan river basins, as well as the livelihoods of the communities living there. To reach this objective, the following activities were expected: i) planning of water basins in the community; ii) organizational and institutional strengthening (creation of the Co-management Committees); iii) pilot interventions (sub-projects identified in the micro-basin plans); iv) compensation mechanisms for environmental services; and v) optimization and rationalization of water usage in the province. The evaluation confirmed that the Project reached most of the results expected in the ProDoc. One of the main

⁶³ For example, the evaluation requested geographic information on the relation of favoured venues with the paramo lots conserved and/or managed, but the different actors affirmed that such information was not monitored nor evaluated. At the same time, the relation between the lots declared for conservation of the Socio Paramo Programme to analyse its contribution to the system was not obtained.

⁶⁴ Agrobiodiversity and collecting ecological information, in particular for the indicators specifically defined in the ProDoc.

⁶⁵ 36 871 has direct influence, and 66.958,33 indirect influence, corresponding to 60 percent of the total area of the five selected micro-basins.

⁶⁶ Taking into account the limitations posed by the project's monitoring system, the evaluator based her work on a transversal and integrating analysis of the components.

achievements is the creation and implementation of the Co-management Committees that can count on the representation of different actors at local level (pertinent parish DAG, leaders of local communities, etc). Moreover, the Project institutionalized the processes for the management and interaction of such committees and integrated the sustainable management of water resources within a micro-basins view.

61. The Committees were instrumental in implementing activities i, ii, iii and v through the integration of sub-projects agreed upon in the management and co-management plan for each of the five micro-basins. Therefore, these plans have proven to facilitate the implementation of Project Component 1, especially activities related to the building of high altitude lagoons and micro-reservoirs and the improvement of productive systems in pasture and gardens.⁶⁷ Since the follow-up system does not have a breakdown of the type of sub-products carried out in each community by micro-basin, nor the number of communities served in micro-basins, the evaluation produced the following Tables.⁶⁸

Table 1: Sub-projects/activities implemented in the Micro-basins

Sub-basin	Provision of pasture (sustainable livestock) ⁶⁹	Milk collection centres	Watershed conservation	Community tourism	Strengthen the alpaca fibre chain	Agroecological production ⁷⁰	High-altitude lagoons	Optimization of the use of irrigation water *
Chimborazo River	X		X	X**	X			X
Blanco River	X	X	X					X
Atapo Pomachaca River						X	X	
TH Cebadas	X		X	X**		X		X
Zula River	X		X			X	X	X

Source: Information collected by the evaluation for the Project Technical Unit;

*Building of 40 micro-reservoirs 10 m3 for irrigation and 62 technical specifications with prices;

** Casa Cóndor / Sangay Lodge

⁶⁷ PROMAREN reports having elaborated 35 sub-projects.

⁶⁸ The evaluation states that the data provided is indicative as it could not verify all data during field visits.

⁶⁹ Seeds mixture imported by the United States and native perennial ryegrass, annual ryegrass, blue grass, white clover, plantain, purple alfalfa.

⁷⁰ Kits of seeds for vegetables such as lettuce, radish, beet, onions, cabbage, etc.

Table 2: Indicative number of sub-projects/activities implemented in the Micro-basins

Sub-project	Sub-basin				
	Atapo	MCB Zula	T H Cebadas	MBR Blanco	MBR Chimborazo
Provision of pasture	2	11		19	23
Milk collection centre				2	
Watershed protection	9	18	4	10	6
Living edges	2	1	1		13
Tourist centres			1		1
Gardens	3	1	11		9
Fruit trees				6	
Native crops	2		9		19
High-altitude lagoon	9	6			
Micro-reservoirs	3	6	7		12
Total	30	43	33	37	83

Source: Evaluation team using project data.

62. The Co-management Committee also served as a platform for the implementation of training processes in the micro-basins. For example, the Project reports that trainings took place in a total of 111 communities with 1 093 participants (739 men and 354 women).⁷¹ Yet, the Project's systematization did not determine the total training carried out until project closure in 2018.⁷²
63. Under Component 1, another important product has been the design of a compensation mechanism for environmental services and its implementation as pilot in the micro-basin of the Blanco River. This product contributed to reaching an inter-institutional agreement among the irrigation boards of the Quimiag and Candelaria communities, Riombaba Electric Company (EERSA) and the irrigation system users of the General Board of the Blanco-Quimiag River, which makes it possible to gather compensation funding for the realization of environmental sub-projects in the micro-basin of the Blanco River. Another important result was the signing of 79 compensation agreements for paramo conservation with landowners (under the Socio-Paramo Programme). It is worth mentioning that these achievements have been supported by the implementation of a massive awareness campaign: "Sensibilización y concienciación de los servicios ecosistémicos de páramo" (Raising awareness of the Paramo ecosystem services) starting from the use of the media such as the radio and exhibition of photographs.
64. However, there are some weaknesses related to the achievements mentioned above. For example, the massive awareness campaign and the management plans did not succeed in projecting an integral understanding of the landscape with the goal of establishing an interconnection among sustainable development projects and conservation initiatives. The agroecology sub-projects did not include the conservation and sustainable use of the paramos' agrobiodiversity as a strategy to support small farmers adapt to climate change and safeguard their food and nutrition security as anticipated in the ProDoc. In other examples, even though the building of water reservoirs and the whole patch of preserved paramo represents a contribution to restoring the paramo ecosystem, its contribution to the

⁷¹ Programme Steering Committee 2015.

⁷² The Project only has information on the training processes, which took place during the quarterly reports.

conservation of the paramos' flora and fauna could not be verified; this could have been integrated in the study on environmental services carried out at the end of 2017.

Component 2 - Activities of the Chimborazo Fauna Production Reserve

65. Component 2 had the objective of supporting the Ministry of Environment strengthen the management and conservation of the Chimborazo Fauna Production Reserve and its buffer zone and reducing its threats to the paramos within this Reserve. To reach this objective, five specific actions were taken: i) elaboration and negotiation of a national plan for the management of Vicuña in Ecuador; ii) development of local capacities and supply of equipment to capture and shear vicuña; iii) building of priority infrastructure and its equipment; iv) study of the Chimborazo Reserve and its buffer zone;⁷³ and v) development and implementation of the co-management plans for natural resources in the Reserve and its buffer zone.

Contribution to the management and use of Vicuña

66. At the end of the 1980s, this species was re-introduced following the creation of RPFCH in 1987 as a profitable, economic alternative to bovine or ovine livestock with the aim of reducing erosion due to trampling and eutrophication due to compactation. At the same time, in 2013 the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) made it possible to change the CITES I category to Category II, after which the Ministry of Environment ⁷⁴ allowed the use of fibre in Ecuador. The Project has been instrumental in creating, for the first time, the necessary conditions and capacities to improve the management and use of Vicuña at national level in general, and in RPFCH in particular.
67. PROMAREN's support in the composition of the Working Group on Vicuñas was also fundamental. This Group is made of representatives from the Ministry of Agriculture, Livestock, Aquaculture and Fishing, Ministry of Environment, Polytechnic School of Chimborazo (ESPOCH), Decentralized Autonomous Provincial Governments of Tungurahua and Bolívar, the German Technical Cooperation Agency (GIZ), GADPCH to guide the updating of the Vicuña Plan of Action and a general proposal for the revision of the 2004 vicuña regulation, realized in 2016. Additionally, PROMAREN supported the writing of manuals and the provision of groups to facilitate the theoretical-practical training for the management and use of vicuña, which included a learning tour to Perú in 2016 and the installation of troughs in eight RPFCH sectors. The most important result of these actions has been the completion of the first "*Chaccu*" (capture and shearing of vicuña) in Ecuador in September 2017.⁷⁵
68. The first *Chaccu* was also an opportunity to better learn some important lessons. For example, the need for better groups for the *Chaccu* or the need to update the guidelines, also incorporating the lessons learned from the *Chaccu* that proved the need to adjust the

⁷³ The studies of the Chimborazo Reserve and its buffer zones hope to define the foundations for the elaboration of the co-management plans of the local communities which should include identification of: i) private properties of communities within the Reserve; ii) biophysical capacity and of the ecosystem (in particular, the capacity of vicuña and camelids); iii) identification of endangered species; and iv) forestry areas.

⁷⁴ The Ministry of Environment worked on a study on the demographic state of vicuña in Ecuador, and the laboratory tests on the quality of water and land trough for vicuña (2012) which led to writing the first National Plan of Action for the management and conservation of vicuña, presented at COP16 and that allowed the Resolution of the change from Appendix I to II (Bangkok, Thailand), 2013. The evaluator did not receive these reports.

⁷⁵ For more information, see article <http://www.fao.org/ecuador/noticias/detail-events/en/c/1035513/> (in Spanish)

regulations as the percentage of the sale of the preserved fibre by the administration, and the monitoring of the Reserve was considered too low for the Ministry of Environment. Moreover, it was clear that a lack of decision by the Ministry of Environment to proceed with the building of the collection centre for the fibre of vicuña did not allow beneficiaries to learn from the marketing of the fibre of vicuña. However, the evaluation noted that GADPCH discussed these lessons learned in the council of vicuña and invited new actors such as ASOCVICUÑA to give advice on the lessons mentioned above.

Contribution of the infrastructure

69. Through interviews with local authorities and the Ministry of Environment in Quito, the Project helped the improvement of a better management of RPFCH through its support to the building of infrastructure and/or provision of the following equipment: i) building of a Bar-Cafeteria under an environmentally friendly management; ii) equipment of the environmental interpretation centre in the RPFCH visitors centre with the aim of promoting the conservation of flora and fauna in the Reserve; and iii) restoration of the walk of "los Hieleros del Chimborazo" in RPFCH and building of the control house at the beginning of the path. Undoubtedly, the National System of Protected Areas pointed that this control house caused environmental damage while it was being built, which shows that this type of work must rely on a previous study of its environmental impact to ensure that such impacts are mitigated or eliminated.
70. As for the benefits coming from such infrastructure and equipment, the evaluation confirmed that neither OPIM nor the final beneficiaries followed-up on such topic. For example, the interpretation centre does not have a form for visitors to prove the utility of the information and services provided. In another case, it was not possible to identify the bar-cafeteria's⁷⁶ incomes to determine if it is enough to keep it open.

Contribution to the Reserve's Management Plan

71. The evaluation confirmed that the study carried out by the project was an important input for the drafting of the new RPFCH Management Plan which was in the process of implementation by the Ministry of Environment during the evaluation.⁷⁷ From document review it is possible to see that, being worked on at the beginning of the Project, it provides important information that could have only been used to establish some indicators and its baseline for the Project's follow-up system.⁷⁸

⁷⁶ There are different reference related to the profitability of the bar-cafeteria. In the indicators' document, it is stated that the Bar-Cafeteria was working normally, at the expense of the Andean Treks private company that provides food services to refugees and was contracted until the end of 2017. The Mid-term Evaluation reports it was administered by the Conservation and Development Foundation that decided to end the agreement due to low profitability and since there was a proposal to submit it to the Riombaba Municipality. On the other hand, in the Ministry of Environment Tracking tool (2015), it is stated that in 2015 the Bar-Cafeteria was managed by the communities, and between February and June they earned USD 9 469, crafts centre earned USD 5 725 between March and May from selling handcrafts, and shelters were operated by Knowledge and Development Foundation and between February and August they earned USD 7 095.

⁷⁷ The ProDoc established that the study had to include a cartography of the vegetative cover, land use, type of properties and evaluation of the biophysical and environmental threats.

⁷⁸ For Chimborazo where the PROMAREN Project is present, it is suggested to push projects for: monitoring of biomass and necromass, recovery of the paramos, implementation of a monitoring system of conservation targets, use and management of vicuña, implementation of a monitoring system of water quality and quantity in priority micro-basins and strengthening of control and surveillance to protect the species (conservation targets) and fires.

Co-management design plans

72. The Project supported the design of a co-management plan for RPFCH⁷⁹ with a five-year plan and a 10 253.98 Ha coverage. The plan includes a definition of internal agreements and regulations for zoning and land use – including the identification of conservation areas - with seven of the ten communities expected in the RPFCH buffer zones.⁸⁰
73. Moreover, this exercise together with the realization of a business plan for three tourist centres in the San Juan Parish, led to the following products: i) training in the management of solid waste in the community of Sanjapamba; ii) delivery of equipment and tools⁸¹ to five communities for handicrafts; iii) design of tourism packages (four individual packages and three collective ones) to strengthen tourism management with the communities in the RPFCH buffer zones; iv) participation of the buffer zone communities in the "10th Endeavours Exhibition" organized by GADPCH to promote the tourist attraction;⁸² vi) delivery of vegetable seeds for agroecological production in 0.30 ha community gardens in the communities of San Rafael de Chuquipoguo, Sanjapamba and Tambohuasha, and other 0.75 ha in the communities of Chorrera Mirador, Cooperativa Santa Teresita de Guabug, Pulinguí San Pablo.
74. Moreover, the evaluation confirmed that the Project was linked to the Spanish CODESPA Foundation to train three communities in the management of alpaca,⁸³ which has resulted in the reduction of ovine and bovine cattle and the selling of alpaca wool with more added value.⁸⁴
75. As for the design of the aforementioned economic activities, the evaluation is satisfied they include a feasibility study together with the analysis of its cost-benefit, the net present value and the internal rate of return. Yet, the weakness of these economic activities is that they were launched very late in the Project. This resulted in a lack of time for the marketing of the products and services promoted and, therefore, it was not possible to know its profitability and identify the necessary measures to strengthen them. Certainly, interviews with the communities confirmed their high interest in receiving more training to improve the quality of products and services for marketing reasons.

⁷⁹ The co-management plans must include: i) sustainable grazing plans (bovine livestock and the replacement of ovine cattle with camelids in the paramos); ii) zoning of land use and its regulations; iii) headwater conservation; iv) inclusion of local communities in the surveillance of resources; and v) provision of tourism services.

⁸⁰ The evaluation did not receive the co-management project, nor individual reports which endorse the list mentioned hereafter. As reported, the consultancy of indicators receives information from the quarterly reports.

⁸¹ Hammers, drills, shoelaces, crochet, machines to make balls of cotton, rectangular handlooms – circular, pedal wooden loom, hand-made loom, portable shearers, manual scissors for shearing, shearing combs and shearing pendulums.

⁸² For example, the evaluation was informed that its participation facilitated approach and cooperation with the tour operator Puruhá RazuUrku of the Board of Chimborazo's Community Tourism Development (CORDTUCH). In other examples, the evaluation identified the installation and equipment of three tourism centres with their respective handcraft centres and organic gardens to promote community tourism in RPFCH.

⁸³ In the province of Chimborazo, the majority of the alpaca population is in the Cebadas area (outside RPFCH), and a smaller percentage in San Juan (in RPFCH area of influence).

⁸⁴ The training programme focused on dyeing, high-quality finished products and handicrafts diversification and is currently supporting the community of Chorrera Mirador, Cooperativa Santa Teresita de Guabug, Pulinguí San Pablo, San Rafael de Chuquipoguo and Tambohuasha in the marketing of alpaca wool.

Component 3 – Strengthening of GADCHPC's ability in the management of natural resources, with a focus on the paramos

76. Component 3 aimed at integrating biodiversity conservation, the management of natural resources and the improvement of livelihoods in the micro-basins within the regulatory framework, development plans (LUDPs) and in sectorial planning in the province of Chimborazo. To reach such goals, the ProDoc focused on three interventions: i) strengthening of training to develop policies and regulations on the management of natural resources, taking into account biodiversity conservation; ii) training programmes on methodologies and tools for the management of natural resources; and iii) monitoring of natural resources management to assess the state of biodiversity and natural resources.
77. The evaluation confirmed that the Project reached important results in Chimborazo's legal framework. In particular, it was fundamental in strengthening the Chimborazo Environment Council⁸⁵ that was used as a platform for the participatory and voluntary elaboration of the regulation promoting recovery, sustainable use, development and conservation of agrobiodiversity in the province of Chimborazo, approved by GADPCH in May 2017.⁸⁶ Additionally, also at the level of GADPCH, the Project contributed with: i) the regulation on accreditation in every process related to prevention, control and monitoring of environmental pollution in the province of Chimborazo, approved in 2015;⁸⁷ ii) the regulation promoting the sustainable management and conservation of paramos and other fragile ecosystems in the province of Chimborazo;⁸⁸ iii) the regulation to apply the compensation mechanisms for environmental services.⁸⁹
78. According to interviews, the evaluation confirmed that to date the delays in the approval of these regulations were partly caused by the disposition of the National Secretariat for Planning and Development (SENPLADES) to order the Local Governments to update their LUDP in 2015 and elaborate an action plan, which did not become effective until 2016. Moreover, it was necessary to expand the consultation process to reach consensus among stakeholders on the acceptable and viable compensation mechanisms and then on the time required to identify them (see Component 1 above). In addition, another contributing factor was the delay in the training of GADPCH staff. The evaluation was informed that the Polytechnic School of Chimborazo (ESPOCH) had difficulties in the elaboration of five training modules⁹⁰ that were not approved until the end of the Project.

⁸⁵ According to the Mid-term Evaluation, the Environment Council includes various state and university stakeholders, and of the population linked to water and natural resources with the aim of creating public policies and plans of action which answer to environmental deterioration (including paramos).

⁸⁶ Source: <http://www.chimborazo.gob.ec/chimborazo/wp-content/uploads/LOTAIP/2017/e%29%20MAYO/literal%20s%29%20RESOLUCIONES%20ADOPTADAS.pdf>

⁸⁷ Mid-term Evaluation Source: The study conducted by PROMAREN on legal loopholes in 2012 recommended that GADPCH be certified to take on the decentralized competition of environmental impacts' evaluation. This recommendation was made by the Prefect and in August 2015 the regulation that confirms GADPCH as local environmental authority was approved.

⁸⁸ As of the date of the evaluation, the regulation was approved based on discussions of the GADPCH legislative management committee.

⁸⁹ According to GADPCH, the regulation for the implementation of compensation mechanisms for environmental services is still being discussed.

⁹⁰ 1) Management of knowledge, know-how and know-how-to-be; 2) River basins planning; 3) Public policy, Environmental and Rights Regulation; 4) Social and environmental diagnosis of paramos and associated ecosystems; 5) Conflict resolution in natural resources management.

79. Another important project product that contributed to the achievement of the objective of Project Component 3 has been the improvement of meteorological monitoring and water quality. First, the Project contributed to expanding the hydrometeorological network in the province of Chimborazo.
80. For the establishment of this network, PROMAREN enabled the installation of four automatic meteorological stations to measure the river's volume in the micro-basins of the Blanco River, Atapo-Pomachaca River, Zula River and TH Cebadas and a conventional hydrometeorological network under GADPCH's leadership.⁹¹ This network was established in agreement with the interest of the different institutions involved, which has resulted in a platform that makes it possible to exchange hydrometeorological information arising from such stations. Currently, GADPCH considers it the country's broadest network at provincial level (42 stations).⁹²
81. Second, the Project established the monitoring and verification system of water and land quality in the five micro-basins. It is working at community level under the establishment of agreements with the parish council and water council that make it possible to count on the budget needed for the operation and maintenance of the monitoring and verification system.⁹³ At the time of the evaluation, the monitoring and verification system had five portable basic instruments to measure water quality (one per micro-basin),⁹⁴ managed by monitoring groups trained by the Project. Due to the recent installation of the monitoring and verification system, it was not possible to analyse the current quality of water in the micro-basins to take the necessary measures.
82. Despite the progress reached with the monitoring of water resources in the province, it is clear that the Project did not succeed in establishing a parallel monitoring to measure the state of biodiversity in the province. The evaluation was informed by GADPCH that this component's objective was not to install a monitoring system. Yet, the evaluation believes the absence of such exercise reduces opportunities for GADPCH to guide and validate the priority areas for the conservation of flora and fauna in Chimborazo.

3.2.2 Contribution to the Environmental and Development Global Objectives

83. This section analyses the contributions provided to achieve the Project's environmental and development global objectives. The aim of such analysis is to identify and understand the complementarities of the individual contributions for the achievement of the higher level results and/or the mechanism level and causal pathway the Project used to reach them.

⁹¹ GADPCH was responsible for the coordination of the installations of the meteorological network under an agreement with Vétérinaires Sans Frontières International, Ecuadorian Centre for Agricultural Services (CESA), National Council of Rural Parish Governments of Ecuador (CONAGOPARE Chimborazo), Polytechnic School of Chimborazo (ESPOCH), National Institute of Meteorology or Hydrology (INAMHI), Ministry of Environment (MAE), Ministry of Agriculture and Livestock (MAG), National Water Secretariat (SENAGUA), National University of Chimborazo (UNACH) and the Chimborazo Risk Management Secretariat.

⁹² Mid-term Evaluation.

⁹³ Blanco River, percentage of its budget for the maintenance of groups and inputs and materials: Quimiag USD 2 500 per year, San Juan Council 3 percent of the Co-management Committees' budget, Zula Parish Council USD 1 500, Cebadas USD 1 500.

⁹⁴ Physical, chemical and bacteriological basic analysis.

Contribution to the global environmental objective

84. The evaluation has concrete evidence to confirm that project results are positively contributing to the achievement of the Project's global environmental objectives. In particular, important achievements are reported with regard to:
- i) The conservation and sustainable use of water resources in five sub-basins that GADPCH can replicate for the paramos in Chimborazo.
 - ii) The strengthening of the political and legal framework for the recovery, conservation and sustainable use of agrobiodiversity in the province of Chimborazo for the approval of a regulation.
 - iii) The legal framework for the application of compensation mechanisms for environmental services expected to be supported by a regulation before the end of 2018 and that offers new opportunities for the guardians of these services to actively take part in its conservation and rational use of its benefit.
 - iv) The approval of a new RPFCH management plan supported by the elaboration of co-management plans, covering over 10 000 ha of paramos and the installations of work to support the protection of paramos and provide improved services for visitors.
 - v) The development of platforms, councils and networks that have facilitated participatory dialogue on the conservation and exchange of environmental information among a broad range of stakeholders, including local communities.
85. However, some weaknesses related to the aforementioned progress were identified, in particular:
- i) A weak engagement of RPFCH managers in activities related to the elaboration of the RPFCH management plan, which has resulted in low ownership.
 - ii) Development of *Chaccu* without having identified the previous markets to guide training in the currently ongoing marketing.
 - iii) The lack of monitoring of the state of biodiversity, including agrobiodiversity, in the paramos, important to recognize that farmers aren't only the guardians of water resources, but also of flora and fauna as, for example, local crops (important for the food sovereignty and security of involved communities) or RPFCH endemic fauna, important for tourism.⁹⁵
 - iv) Difficulties in identifying the Project's direct contributions to paramos conservation. For example, within RPFCH, the Project report that the designation of 7 950.56 ha of paramo for conservation and protection in the buffer zones outside RPFCH was an accomplished goal. This can be seen in Tables 3 and 4 below. Nevertheless, the evaluation could not identify if they are a project contribution or how far such additional interventions were financed by other sources of funding.

⁹⁵ Apart from vicuña, there are important wild animals in the RPFCH as the Andean wolf, white-tailed deer, small deer, striped hog-nosed skunk, etc. (source: <https://www.parks-and-tribes.com/>).

Table 3: Ha reported as protected within RPFCH

Modality	Comments	Ha reported
Recovered between 1990 and 2012	This area can be attributed to a project implemented by EcoCiencia (2014) ⁹⁶	562.00
Following agreements with the Ministry of Environment - Socio Paramo Programme (SBP-SP).	The agreements were signed between 2011 and 2012, but PROMAREN started in 2012 which shows they cannot directly be attributed to its management	5 330.98
Replacement of bovine and ovine livestock with camelids	Possibly attributed to a project implemented by EcoCiencia	930.00
Identification of the zoning of the Co-management Plans to enter the SBP-CP ⁹⁷	It was not possible to confirm if the agreements were signed	1 127.58
Total		7 950.56

Table 4: Ha reported as protected outside RPFCH

Modality	Comments	Ha reported
Socio Paramo SBP-CP Programme ⁹⁸	The PIR 2015 states that 14.18 ha of reforestation with indigenous species along the water courses and bank protection. It needs to be confirmed if this datum refers to Socio Bosque Programme in order not to duplicate record in 2017	17 416.00
Forest re-generation (254 watersheds in total)	Under the protection activities of rivers and lagoons banks. This number does not include the 12 high-altitude lagoons in the micro-basins of the Zula and Atapo-Pomachaca Rivers that have been fenced with concrete posts and barbed wire and have planted native tree species (Polylepis, alders, lime trees) as a barrier, so they are not areas covered by paramo vegetation but by water bodies.	2 414.84

⁹⁶ It is not a project contribution and/or the Project has not defined in which ways it contributed to this result.

⁹⁷ PIR 2017.

⁹⁸ The Project served as a bridge to sign a cooperation agreement among the Socio Bosque Programme - Chapter on Paramo and GADPCH so that landowners in the paramos sign protection agreements of designated areas in exchange for financial rewards. PROMAREN's role has been to link the benefits presented by the Programme to communities, and then the technical staff of the Socio Bosque proceed through the signing with each interested community and/or individual.

The Mid-term Evaluation reports 17 416 hectares under conservation agreements with the Socio Bosque Programme – Chapter on Paramo and/or Recovery. Of this total, two contracts (Ass. Zoila Martínez 530 ha and Luis Cedeño 35,28 ha) were managed as the pilot benefit for CES conservation services.

Compensation Mechanism for Environmental Services ⁹⁹	79 signed agreements (see Appendix 9).	856.00
Agroforestry planting – linear plantings (<i>linderaciones</i> - border markings), curtains and wind barriers,	They can be considered a contribution with native species not inside the areas for conservation, so they are not creating forest communities.	1 218.72
Total		21 905.56

- v) The information on the contribution to the conservation of areas with native vegetation coverage is not enough to determine the effects on the ecosystem in an inclusive and systematic way. For example, there is no information on the interaction of these "islands" or preserved patches. Certainly, during the field visits protected banks in discontinued sections were seen, which increases the potential of possible altitudinal migrations caused by climate change. In other examples, there is not enough information to know the number of participants who dedicated lands to conservation and based on the field visit in the micro-basin Blanco River only three people confirmed this practice. In a third example, on the replacement of bovine or ovine cattle with camelids (alpacas/llamas), the evaluation did not receive information on the implementation of this strategy, despite reference that 365 camelids had been incorporated in 930 hectares, instead of livestock.¹⁰⁰

Contribution to the development objective

86. Agrobiodiversity conservation is coherent with GEF objectives for being a conservation biodiversity aspect, and with FAO objectives as a way to fight poverty and for food security in fostering communities be owners of their own seeds and having native varieties and a strategy for being a self-sustaining and adaptation strategy to climate change. However, despite the strengthening of the legal framework mentioned above (in particular the approval of the regulation for the recovery, conservation and sustainable use of agrobiodiversity in 2017), the evaluation believes that the Project did not implement agrobiodiversity conservation. Undoubtedly, the ProDoc's intentions of re-establishing and sustainably using agrobiodiversity, in particular in native crops, were changed by the promotion of agroecology with certified seeds in micro-basins management plans. The evaluation was informed that this change was asked for by the same involved communities. In fact, the only project contribution in such matter was the provision of native seeds in the Guamote area starting from an interaction with the agrobiodiversity project financed by GEF,¹⁰¹ even though a large part of the product was lost due to freezing. According to the interviews carried out with the interested parties, the evaluation determined that the Project did not count on appropriate technical support in agrobiodiversity within OPIM, nor with the necessary synergies with the agrobiodiversity project to facilitate the broadening of its activities in the intervention area of the PROMAREN project.

⁹⁹ The conceptualization of the Committee on World Food Security (CFS) for the micro-basin of the Blanco River proposes the Socio Bosque-Chapter on Paramo incentive as one of the conservation options.

¹⁰⁰ PIR 2015, Mid-term Evaluation.

¹⁰¹ "Mainstreaming the use and conservation of agrobiodiversity in public policy through integrated strategies and *in situ* implementation in four Andean Highlands provinces" Biodiversity GCP/ECU/086/GFF carried out between August 2014 and March 2018.

87. As for poverty alleviation, in accordance with FAO Strategic Objectives (in particular SO 2), concrete progress was not reported, except for some isolated cases. Therefore, poverty keeps representing an important threat to the conservation of the ecosystem of the paramo in the province and, therefore, with regard to its environmental services.
88. In isolated cases as, for example, the establishment of agroecological gardens, people interviewed confirmed a better quality of life in terms of their families' basic and nutritional health due to the increase in the variety of products consumed and the decrease in the use of chemical consumable goods. Yet, according to the people interviewed, agroecology did not result in economic benefits and it was clear that OPIM did not follow such data in its follow-up system despite the fact that the province of Chimborazo has the highest rate of childhood malnutrition in the country.¹⁰² In another example, in the productive projects (related to tourism, management of vicuña fibre, handicrafts and agricultural production supported by the installation of sprinkler irrigation), participants expressed their satisfaction, yet they affirmed that economic benefits have been lost. Moreover, a lack of marketing support and follow-up of such actions was identified.
89. Even though PROMAREN did not calculate the economic contribution of the Project's direct economic actions, it hired a consultant to identify the economic value of some environmental services of Chimborazo's paramo. This study helped the members of the Environmental Council, as well as those who make the decision in GADPCH, understand the economic value of the environmental services of the paramo and the role of rural communities in supporting the economy and wellbeing of citizens in the province. For example, it is worth mentioning that this study resulted in an economic calculation of the environmental services produced by all the paramo of Chimborazo for the hydroelectric service, for irrigation users (USD 12 per ha/year), for the consumption of drinking water (USD 0.25/month except Riobamba USD 3.79/month) and for cropping of different products.¹⁰³ However, the Project did not conduct a parallel study on the economic value of agrobiodiversity, in particular the beneficial cost of native marketable crops related to agricultural products produced with chemical inputs.

3.3 Efficiency

90. The efficiency criterion regards Evaluation Question 3: *Have the intervention methods, institutional structure and financial, technical and operational resources and procedures available helped or hindered the achievement of the project outcomes and objectives?*

Finding 3: Project efficiency was considered **moderately satisfactory**. The OPIM modality made an important contribution to the production of local planning capacities in line with LUDP guidelines, organizing participatory consultations and planning GEF's human and financial resources. Moreover, OPIM was instrumental in finding more financing than expected in the ProDoc. These achievements contributed to the development of GADPCH's institutional capacity to manage GEF projects and transform them in the achievement of the important results mentioned in section 3.2 above. Yet, the Project experimented inefficiencies in its implementation and in the permanent strengthening of GADPCH due to the following reasons:

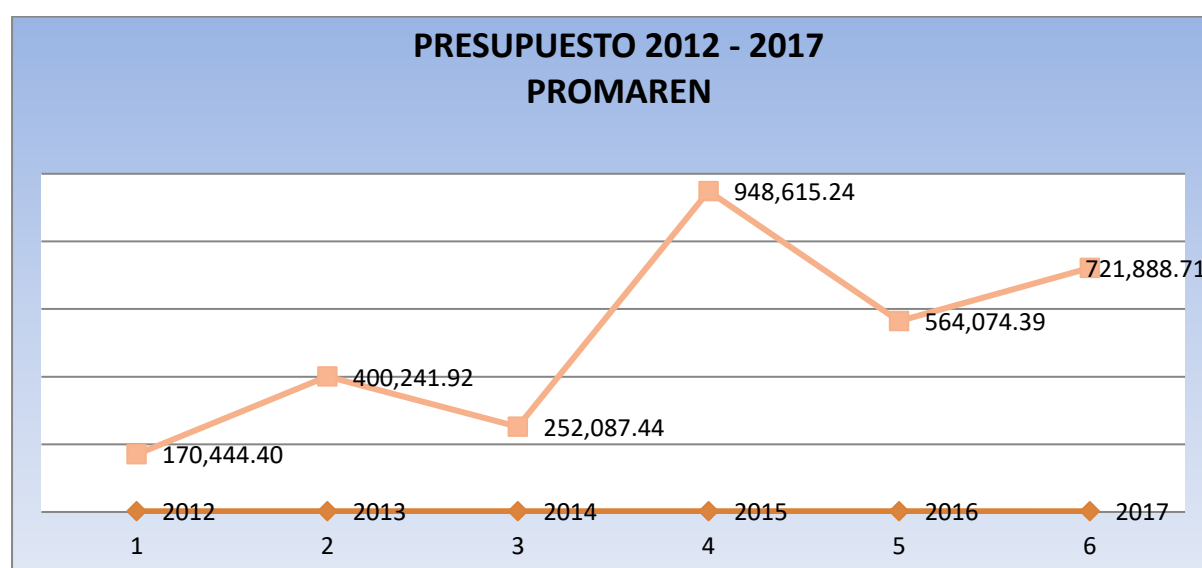
¹⁰² The National Institute of Statistics and Census (INEC) estimates that the rate of child malnutrition affected 48.8 out of every 100 children in Chimborazo, according to a survey carried out in 2014.

¹⁰³ It also calculated the support of paramo for the capture of CO₂ (96 per 255 t/ha) and its economic value (USD 3 to USD 4.89 /t).

- It did not include in its design (nor in its risk analysis) a diagnosis of the national and provincial norms and pertinent regulations, or the various functions and interactions of the different administrative levels, or relevant information on GEF and FAO's rules, procedures and roles in the Project. Therefore, it was difficult for OPIM to manage and/or combine the demands and procedures of all interested parties.
- High staff turnover in OPIM and in the provincial and cantonal DAGs, especially at the beginning of the project, caused by national regulations.
- Lack of follow-up on the results (based on the baselines, indicators and goals), which reduced access to information on project implementation and its lessons learned and good practices.
- Slow execution of resources, caused by the national purchasing processes, and the contracting of technical staff, resulting in the need for two project extensions until May 2018.
- Execution of about 20 percent of GEF funds in the last semester of the Project, which resulted in the lack of technical help to strengthen them.
- Weak implementation of the Project's adaptation management process despite the completion of the Mid-term Evaluation and changes in the Logical Framework. The evaluation believes these did not clarify the Project's final objective nor facilitated the follow-up process of its results.

3.3.1 Implementation

91. The Project's level of implementation in financial terms was irregular in time, as can be seen in Figure 2. There was a delay in the start of the Project; the expected start date was October 2011, but the first payment arrived in March 2012. Financial implementation was low during the first two years (2012-2013) mainly due to the participatory design of the development plan which did not require high investments. Since 2014, there has been a peak in financial performance, after the sub-project and priority activities to be implemented in the micro-basins were identified. Implementation was low in 2015-2016 and until the last semester of 2017 when almost 20 percent of GEF funds were implemented.

Figure 2: Implementation until October 2017

Source: Project Technical Unit

92. The analysis of the project's budget in Table 5 confirms that USD 3 057 352.10 were implemented until October 2017 (including USD 50 000 implemented by FAO), while the remaining USD 762 647.90 was not used until December 2017 (Table 6).

Table 5: Implementation of GEF budget per year (USD)

YEAR	BUDGET	BALANCE
GEF donation	3 870 000.00	
2012	170 444.40	3 699 555.60
2013	400 241.92	3 299 313.68
2014	252 087.44	3 047 226.24
2015	948 615.24	2 098 611.00
2016	564 074.39	1 534 536.61
(Oct) 2017	721 888.71	812 647.90
Implemented by FAO*	50 000.00	
TOTAL implemented	3 057 352.10	762 647.90

Source: Financial project report

Elaborated by the evaluation

*agreement with FAO for the direct implementation of USD 50 000

93. An analysis of the Project's budget until the end of 2017 confirms that a total of USD 3 340 913/44 had been implemented. This means there were USD 479 086 left for extension, granted until May 2018. The budget implemented in 2017 accounted for USD 1 055 453.65, therefore being the highest year for project implementation (see Table 6).
94. Moreover, 30 percent of the 2017 implementation took place in the third quarter, when it should have been project closure. The Project reported it was due to delays in appropriate

contracting of a large number of planned activities, in particular with regard to the building of infrastructure, the implementation of *Chaccu* and economic activities, among others.

Table 6: Implementation during 2017

EXPENDITURE PERIOD	Implemented (USD)
First quarter of 2017	544 111.32
Second quarter of 2017	177 777.39
Third quarter 2017	283 561.34
Bank charges	3.60
TOTAL	1 005 453.65

Source: Financial project report of the third quarter of 2017

Elaborated by the evaluation

95. In February 2018, FAO and GADPCH agreed that the remaining balance (USD 176 783) would be managed directly by FAO to end the Project and organize the results under OPIM, as it was not possible to end the Project at the end of 2017 due to the activities and other work mentioned above.
96. As for implementation per component, most were left with an outstanding balance to be used, with the exception of the building of infrastructures for the Reserve, which cost USD 183 000 (174 percent) more than estimated. In some sectors, implementation was considerably lower than expected, as the implementation of the National Resources Monitoring System (21 percent less than planned, leaving a balance of USD 183 000), processes for the management of the fibre of vicuña (25 percent implementation with USD 135 000), co-management implementation activities (49 percent implementation with USD 97 754.00), implementation of pilots in the micro-basins (92 percent implementation, but due to the amount originally assigned the budget is USD 125 000).

Table 7: Collected implementation of GEF funds and non-implemented balance

Component/Product	Total amount at CEO approval (USD)	Total expenses (USD) up to December 2018	Balance (USD)
Component 1: Conservation of the paramos and the related ecosystems	2 344 570.00	2 205 352.00	139 217.00
1.1 Basins management plans and community training	396 375.00	397 690.00	-1 315.00
1.2 and 1.3 Implementation of management plans, priority actions and communities training	1 666 000.00	1 540 941.00	125 058.00
1.4 Improved irrigation systems	0	0	0
1.5-7 CES pilots	282 195.00	266 720.00	15 474.00
Component 2: Priority actions for the strengthening of the management and conservation of the Chimborazo Fauna Production Reserve	718 875.00	630 963.00	87 911.00
2.1 National Plan for the management of vicuña	0	0	0
2.2 Buildings in the Chimborazo Reserve	245 000.00	428 193.00	-183 193.00
2.3 Studies for the Chimborazo Reserve and its buffer zone	94 500.00	57 571.00	36 928.00
2.4 Implementation of co-management activities	195 475.00	97 720.00	97 754.00
2.5 Management and use of vicuña	183 900.00	47 477.00	136 422.00
Component 3: Strengthening of capacities of the GADPCH management of natural resources with a focus on paramos	423 455.00	178 339.00	245 115.00
3.1 GADPCH staff trained in the management of natural resources	42 500	54 386	-11 886
3.2 GADPCH strengthened in policies and regulations for the management of natural resources	78 455.00	30 244.00	48 210.00
3.3 Provincial regulations for the management of development natural resources	77 000.00	52 017.00	2 498.00
3.4 Monitoring system of natural resources	225 500.00	41 690.00	183 809.00
Project management	383 100.00	326 257.00	56 842.00
Total	3 870 000.00	3 340 913.00	529 086.00

97. Implementation is related to the timing of the payment; it is noted that the last payment of USD 500 000 was made in the last quarter of the Project (see Table 8).

Table 8: GEF Funds disbursements

DEPOSITS	AMOUNT (USD)
First disbursement 02/03/2012	193 500.00
Second disbursement 20/09/2012	127 000.00
Third disbursement 28/08/2013	335 000.00
Fourth disbursement (first part) 17/12/2013	178 000.00
Fourth disbursement (second part) 18/12/2013	9 000.00
Fifth disbursement 06/05/2015	500 000.00
Sixth disbursement 11/09/2015	500 000.00
Seventh disbursement 09/03/2016	500 000.00
Eighth disbursement 05/01/2017	500 000.00
Ninth disbursement 10/04/2017	500 000.00
Total GEF-GAO disbursement	3 342 500.00

Elaborated by project implementers

3.3.2 Co-financing

98. The ProDoc identified co-financing of USD 6 441 000 but in reality OPIM states that the Project's co-financing was of USD 8 082 000 (see Table 9). If we compare this amount to project financing, we notice that the relation between GEF co-financing and donation is basically a ratio of 2:1. Moreover, important co-financing was given by different institutions and, among these, the main expected source was funding from the implementing agency (GADPCH) and a loan from the World Bank to GADPCH for the PIDD project.
99. The co-financing contributions of GADPCH (USD 2 447 000) and Ministry of Environment (USD 2 000 000) were higher than expected (see Table 6). GADPCH gave an important co-financing both in cash and in kind (including the use of machinery, for example to carry out excavations for water reservoirs). Part of this co-financing has not been assessed and therefore the evaluation cannot report on it.
100. GADPCH received loans from the PIDD Project supported by the World Bank¹⁰⁴ as planned, and implementers affirm there was interaction and complementarity with this Project (see level of interaction in the subheading on Partnership).
101. The reported funds of the Ministry of Environment mainly come from the Socio-Paramo Programme, according to which the owners who designate lands for conservation will receive an annual payment based on the agreements signed.
102. Participant's contribution was obtained starting from an implementation policy of GADPCH and the project through which all project participants, called "beneficiaries"¹⁰⁵ had to contribute with a 10 percent co-financing¹⁰⁶ to be able to become recipients of the productive sub-projects and project inputs. This percentage was lowered to 5 percent for the

¹⁰⁴ BIRF Project – PIDD Programme (Loan N° 7496-EC, signed in April 2008) with the goal of increasing production and access of rural families to market through investments in irrigation and improving routes.

¹⁰⁵ It is preferable to refer to the receivers of Project inputs as participants as this is a neutral term and, eventually they could really become beneficiaries or be impacted by a project.

¹⁰⁶ The funds managed by their beneficiary group. Source: MTE, interviews.

compensation projects for environmental services (CES) and the additional 5 percent was given to parish councils. The amount of co-financing received is only partially assessed.

103. The co-financing reported for participants does not consider contributions in cash and work for the implementation of the productive projects (USD 256 260), protection of watersheds and water sources (near forest plantations – USD 18 105), water optimization (USD 11 244). Co-financing reached with the support of the communities was excellent, but it would be appropriate for GADPCH to understand if by making co-financing a prerequisite for participants' participation in activities, they might be leaving aside the groups most in need.

Table 9: Co-financing received by the project (USD)

Institution	USD planned in the ProDoc	Actual implementation	Implemented for species	Total amount implemented as of 30 June 2017
GADPCH:	2 230 000	1 927 000	520 000	2 447 000
World Bank	3 200 000	3 060 000		3 060 000
Central Government – Ministry of Environment	661 600	1 270 000	830 000	2 100 000
EcoCiencia in species	100 000		150 000	150 000
COMICH	150 000			0
Participants	100 000	45 000		280 000
Total co-financing	6 441 000			8 082 000

Source: PIR, June 2017

3.3.3 Monitoring and evaluation

104. The ProDoc included a series of elements for monitoring and evaluation (M&E), including a detailed description of a monitoring and evaluation plan with the type of documents to be prepared,¹⁰⁷ as well as expected external evaluations.¹⁰⁸ At the same time, it also describes the management process of monitoring within GADPCH and the FAO Office in Ecuador, and its contribution to the monitoring of Annual Operating Plans (AOPs), TOR, approval of quarterly reports, final reports and technical reports of the GADPCH technicians and those in charge of the FAO Representation in Ecuador (Representative, GEF Operations Manager, Lead Technical Unit).
105. As for interviews, both in the Office of the FAO Representation and within GADPCH and the documents analysed, the evaluation found that this M&E Plan was implemented mainly to follow-up operations as, for example, the fulfilment of the proposed contracting. The evaluation determined that this follow-up process had some weaknesses which affected the achievement and recording of the expected results. For example, there is a weak definition of the guidelines for the Project's main activities and products. Moreover, the guidelines presented in the ProDoc at project inception had not been updated, nor was there any identification of the guidelines not present in the ProDoc (as, for example, the paramo area included in the Ministry of Environment's Socio Paramo Programme). Moreover, the Project

¹⁰⁷ Inception Report, AOPs, PIRs, quarterly reports, final report, co-financing report.

¹⁰⁸ Mid-term and Final Evaluation.

did not use information provided by consults hired at the beginning of the Project which could have been used for the guidelines missing in the ProDoc (for example, in the RPFCH Management Plan).

106. Another observation is that the gathering of information to determine the progress of the expected results was weak. Towards the end of the project a consultant was hired to determine the compliance of indicators selected by the Project to see if the goals established in the Logical Framework had been met. However, this contracting focused on identifying and establishing the compliance with these goals for systematization goals, but it is clear that this type of contracting at the end of the Project did not allow learning during implementation, which could have been supported by the changes made to maximize effectiveness and efficiency.
107. Another observation is that even though the evaluation provided additional information on the compliance of the Logical Framework indicators, it was clear that this information does not necessarily allow a full understanding of project effects in relation to its objectives.
108. Another weakness in the follow-up was the lack of update of the Logical Framework after the Mid-term Evaluation (November 2015). For example, it failed to establish indicators to follow-up on elements such as the state of agrobiodiversity. Certainly, the decision to promote agroecology projects reduced the opportunity of assessing and recognizing the value of agrobiodiversity in food security by an important percentage of beneficiary farmers.
109. Moreover, the Mid-term Evaluation focused on a detailed description of the management arrangements both at central and community level, but did not clarify the Project's final objective and underlined the need to evaluate the established progress with regard to the management of water resources rather than providing a more integral project analysis.¹⁰⁹
110. Finally, after the Mid-term Evaluation the Project did not prepare a management response that clearly states which recommendations were accepted and which ones were not. During the evaluation some recommendations were accepted, while others, such as reviewing the logical framework, were not accepted, apparently because there was no person specialized in the identification and application of indicators from OPIM results. For example, much emphasis was put on following numerical indicators even though ecosystem management additionally requires a special approach. In another example, the Project made important efforts to integrate women, yet this is not clearly reflected in the report on the achievement of indicators and therefore is not separated by gender.¹¹⁰

¹⁰⁹ Both the Mid-term Evaluation and the ProDoc recognize that initiatives similar to those of decades ago have been carried out in the area, but without an ecosystemic and integrating vision, and this is the added value offered by the ProDoc.

¹¹⁰ Reported for training capacity. At the level of progress reports, the project seems to have reported participation percentages of men and women.

3.3.4 Efficiency in the management modality – OPIM

111. OPIM acted as the Project's technical unit in GADPCH,¹¹¹ with an accounting consultant and the Project's technical team.¹¹² The ProDoc establishes the Planning Coordination of GADPCH as the main responsible unit for the approval of OPIM planning and contracting, as well as supervising project implementation. However, at the beginning of the Project in 2012 OPIM was established under the authority of the GADPCH's Environmental Management Coordinator.
112. The evaluation confirmed that the GADPCH Environmental Management Coordinator fulfilled most of his responsibilities in time with regard to the approval of the TOR, leading direct management in the field, approving contracts, plans and technical and financial reports, supervising the implementation of work plans of all members of the Project's technical team. Moreover, his responsibilities were carried out in accordance with the norms and procedures established for public contracting and with the Project Operations Manual.
113. However, we can conclude that OPIM was an efficient management modality for GADPCH project implementation; the Technical Leader and Technical Project Team reported to a specialized authority in environmental management rather than GADPCH Planning Coordination, reducing the opportunities to implement the Project under a broader view of the land and development of the province (articulated in the LUDP). Moreover, due to the weaknesses aforementioned on the lack of an expert in the Project's technical group specialized in the follow-up of results, planning and follow-up focused on environmental planning and management, especially of water resources, which was a contributing factor to the lack of the Project's integral vision, as foreseen in the global development and environmental objectives. Certainly, within the technical unit and GADPCH there were different follow-up instances instead of an integral one. For example, the technical leader was in charge of monitoring the compliance of the targets of the original Logical Framework without Guidelines in the follow-up of the consulting and buying contracting processes but only to become familiar with the status of these processes and ensure its compliance (taking into account that the contracting processes when entering the GADPCH national structure were very bureaucratic) and the Environmental Coordinator carried out the follow-up of all activities under the three project components to report on the progress to the Prefect but not to the Planning Coordination to be integrated in the processes related to the implementation of GADPCH's LUDP.
114. It is worth mentioning that the evaluation also detected a follow-up on behalf of the Office of the FAO Representation in Ecuador, and the Central Office in Rome. This follow-up focused on tasks such as monitoring the approval of strategic documents (AOPs, TOR contracts, etc.) and reporting to GEF on the products and progress generated (in progress reports). Moreover, the GEF Operations Officer located in the FAO Representation in Ecuador¹¹³ was in charge of guiding the Environmental Management Coordinator and the Project's technical leader on the requirements found in the ProDoc and in the Mid-term Evaluation.

¹¹¹ The OPIM has management arrangements for the implementation and monitoring of the Project; these differ from the projects implemented by direct FAO administration where project technical managers are contracted by FAO and have decisional power on the planning, contracting of technical assistance and implementation.

¹¹² The Technical Project Team was integrated by independent experts. This included an expert in Andean agroecosystem, an expert in the planning of the use of basins and land, an expert in the management of natural resources and a social expert (promotion of community and communication).

¹¹³ GEF Project Officer.

115. For the macro follow-up of the project's contribution to the achievement of the objectives of the Country's Plan (CPF), the FAO Office in Ecuador counted on a compiled system with other projects financed by GEF. FAO's follow-up is designed to monitor the projects' contribution in its portfolio to determine the level of achievements of its CPF. A weakness identified with this type of follow-up is that FAO carried out an inception workshop at the beginning of the Project in which there was discussion on the follow-up with OPIM and GADPCH, but did not update such follow-up with the new staff who joined the project in 2013 or after the Mid-term Evaluation in 2015. This situation is surprising, especially since the Project's Steering Committee met less than once per year¹¹⁴ to review annual reports and discuss on the follow-up for the project's AOPs. In fact, after the Mid-term Evaluation, extended meetings took place with approximately 25 people (including delegates of the co-management committees of the five micro-basins), which represented an opportunity to plan another workshop.
116. From the minutes of these Project Steering Committees we notice that FAO provides advice that will make it possible to define its advisory role in a moment when, on some aspects (for example, on the conservation and follow-up on the status of agrobiodiversity) one would have expected an addressing position with the aim of refocusing the Project with a more integral vision and mission in its planning and monitoring. For example, FAO could have used the elaboration of the National Strategy for Biodiversity 2015-2030 (which integrated conservation and recognition of agrobiodiversity) as an opportunity to focus more on conservation and the sustainable use of native crops and encourage the Ministry of Environment to adopt a more leading role in the Project.
117. Finally, the evaluation noticed a lack in OPIM application (as well as the advisory provided by FAO) of integrating risk management in its planning, implementation and follow-up. The ProDoc included a risk management section and reference of the possible difficulties that could have been experienced during the management. Nevertheless, the evaluation confirmed that there was no risk management that could have hindered the achievement of project results and/or objectives. For example, the technical leader did not coordinate the identification and categorization of the external risks that could have strengthened the planning and ensured that topics such as climate change adaptation were integrated, or mitigated operational problems associated with the high staff turnover in OPIM and GADPCH.

3.3.5 Effects of the implementation of the OPIM Modality

118. One of the justifications to implement the OPIM modality was the generation of local capacities in the implementation of the projects,¹¹⁵ the sustainability of its results and a greater internalization of GEF and FAO principles within the institution. However, despite the seven years of implementation under OPIM, it did not succeed in institutionalizing it within GADPCH although the Prefect gave his endorsement to continue hiring some OPIM experts (including a Technical Leader) in 2018 (meaning after the project official closure date in May 2018). As for management training in other public instances in the province, partial or low

¹¹⁴ Meeting: PSC 30 January 2013, PSC 13 March, PSC 08 October, FAO – Technical Project Team September 2014, PSC December 2015; 2016, PSC August 2017.

¹¹⁵ OPIM objectives: i) generate capacities in national professionals and local organization; ii) increase impact in the field; iii) create deeper partnerships with operational partners; iv) increase national empowerment; v) decentralize the delivery of the strategic framework; and mobilize additional co-financing resources at national level. FAO 2017. Enhancing national delivery systems through operational partners (OPIM modality).

training was reported due to the high staff turnover and, in some cases (for example, RPFCH Administration), because no people suitable for the training were involved.

119. As for project management, important positive effects were identified as, for example:

- it facilitates political and economic support by GADPCH authorities, which ensured important co-financing (see Table 6);
- it increases convening power to other local institutions in the state, as well as in the civil society;
- it encourages a more effective participation of local communities as they are already familiar with local authorities.

120. On the other hand, some of the negative effects of the OPIM modality were identified, among which:

- The OPIM management processes are more complex and bureaucratic and, therefore, require more time than the Direct Implementation Modality before being implemented.¹¹⁶
- OPIM needed to abide by both internal GADPCH mechanisms and FAO and GEF procedures according to the Operations Manual elaborated by OPIMs, which was an important reason for the delays in launching/ending activities during the Project.¹¹⁷
- FAO's role in the projects with an OPIM modality has not been clarified in the manual and, therefore, the Organization does not take on a proactive approach, but a passive one. Moreover, as OPIM manages GADPCH in the city of Riobamba, this modality appears less used not only by FAO, but by other national decision makers.
- The lack of a single follow-up system aimed at following results (partly caused by the lack of a technician specialized in such systems) did not facilitate learning nor dialogue among the interested parties on the lessons and good practices to be adopted in future planning in the province.

3.3.5.1 Strategic Alliance and synergies with other organization

121. The Project's level of interaction with other relevant initiatives operating in the province of Chimborazo was relevant, but in the majority of cases they were punctual interactions. The evaluation identified synergies and/or cooperation agreements with:

- The PIDD Project¹¹⁸ (as expected in the ProDoc) that allowed the exchange of information to identify that of the intervention sites and the beneficiaries that avoided the duplication of work and overlapping in its areas of intervention. Moreover, it resulted in PIDD carrying out some work, as micro-reservoirs, rehabilitation of and delivery of seeds in different communities supported by PROMAREN.

¹¹⁶ The projects to be implemented in each of the areas were designed by PROMAREN technician, they were then reviewed and edited by the project's Technical Leader, and then sent to the GADPCH Environmental Management Coordinator, and with his contributions they were passed on to FAO Ecuador and FAO Rome to be approved.

¹¹⁷ The processes of all the planned activities took at least two or three months and, at times, much longer, which caused a delay in almost all planned activities, as well as a clear strain in the process at the end of the second semester of every years, including at the end of the Project.

¹¹⁸ PIDD had the goal of generating irrigation management plans, building irrigation systems, the provision of sprinkler irrigation.

- The agrobiodiversity project supported by GEF, which resulted in PROMAREN hiring a lawyer to draft the agrobiodiversity regulation approved by GADPCH in 2017. Moreover, the agrobiodiversity project provided advice on buying seeds and inputs to provide the seeds of some native potato varieties in the Guamote Canton.¹¹⁹
- Different coordination offices within GADPCH, in particular with the Productive Development and Social Management Coordination Department, that participated in spreading and information exchange workshops for the inclusion of participants. The aim was to implement the sub-projects/similar activities to those of the PROMAREN project to avoid duplication of work or work only benefitting the same stakeholders.
- The National Water Secretariat (SENAGUA) and grassroots organizations during the signing of agreements with the user directories of 29 risk systems and with co-management committees for the five micro-basins.
- National Institute for Meteorology and Hydrology (INAMHI), Polytechnic School of Chimborazo, Ministry of Agriculture and Livestock, Ministry of Environment, National Water Secretariat (SENAGUA), National University of Chimborazo (UNACH) and Ecuadorian Centre for Agricultural Services (CESA) - Vétérinaires Sans Frontières Internationa (AVSF),¹²⁰ with whom an agreement was signed to increase the hydrometeorological network (coordinated by GADPCH), renewed for two years before ending the project.
- Irrigation System Users Council of the Blanco River, Chimborazo Electric Company for the implementation of the Conservation Mechanism for Environmental Services in the Blanco River basin.
- Other local institutions to promote training and spread information to the co-management committees of the micro-basins (Fire Risk Prevention Secretariat),¹²¹ the Police and Firefighters with regard to security, infringements control and fire brigades, among others.

3.4 Regulatory values

3.4.1 Inclusiveness and participation

122. The question that guided the analysis was: *To what extent has the project, in its work with local communities, ensured that all the stakeholders participated in the decision-making process (including the implementation of activities) and the empowerment of farmers in progressing with their rights?*

Finding 4: Beneficiaries' inclusiveness and participation during project implementation was **satisfactory**. Through interviews with the communities, the evaluation found that the Project was

¹¹⁹ The agrobiodiversity project operated in two cantons in Chimborazo: Colta and Guamote.

¹²⁰ Management Project coordinated by the sub-basin of the Chambo River, implemented by the CESA-AVSF national NGO Committee - Vétérinaires Sans Frontières aimed at contributing to the development of equal, efficient and sustainable management of water in Ecuador, with emphasis on the rural area (Mid-term Evaluation). The Chambo Project led to the **creation of the Environment Council** integrated by various state actors, universities and populations bound to water and natural resources, with the aim of coming up with public policies that respond to the problem of the environment and, of course, of the paramos, as part of concrete agreements, as **support to the creation of a regulation that deals with the management and protection of these ecosystems**.

¹²¹ NGO working with World Vision International.

well accepted at local level and in general had the goal of extending communities and participants' inclusion. In fact, the target of the number of communities and participants included in the Project was surpassed.

123. Starting from interviews with local participants, the evaluation found that even though the communities were not consulted during the preparatory phase, during project implementation the evaluation received great acceptance from local authorities and communities. PROMAREN's support to the Co-management Committees allowed for the collective inclusiveness of a high number of actors and application submissions (communities, parish councils, water councils in some cases) in a clear democratic process, representing an important project achievement.
124. The Project established the criteria for the selection of participants to be involved in sub-projects (meaning for the reception of inputs and technical assistance), trying to be equitable. Among these, the main criterion mentioned was that participants who wanted to join had to be willing to provide co-financing in kind and work, and even though the contribution may not be very high, they are important for farmers. Another criterion was that participants must not be the same as in other projects (those of the Productive Development Coordination and the PIDD project) since the initiatives were similar (delivery of seeds, meals, building of micro-reservoirs). The synergies and interactions mentioned above made it possible to positively address these criteria.
125. However, the selection criterion was not clear for the communities of the RPFCH buffer zone that received inputs and technical help for sub-projects for the management of alpaca and tourism. In 2015 PROMAREN formulated an integral, co-management project during which 7 of the 12 communities of the Chimborazo foothills in the province were selected. After, work was done with six of them, and inputs given to five.¹²² According to information received, the beneficiaries were those communities that accepted the invitation and participated in training workshops.
126. For the distribution of benefits coming from the fibre of vicuña, proposals were established for equitable distribution, although no definition was reached during the evaluation. Yet, the fact that there were people affected by their participation in project activities was not detected.

3.4.2 Gender

127. The question that guided the analysis was: *To what extent has the project addressed gender equality issues in its design and contributed to the empowerment of women, young people and other vulnerable groups throughout its completion?*

Finding 5: Women's participation was important in the Project; it was a fundamental element for the implemented actions to be successful, especially in micro-basins where women are often the head of the family.

128. The evaluation noticed that women were included in important ways in the projects' completed activities and training processes. During field visits and interviews with the focus groups of the committees and communities, it was clear that there was a strong participation of women and their ability to interact and show their opinions in the same conditions as men.

¹²² Benchmark document.

Moreover, another clear aspect was implementers' special attention to making men and women take part in the planning and training processes. Even more, it was confirmed that women participation was essential to carry out the majority of activities expected in the field, and in the micro-basins in particular. During the interviews, women were the ones who mostly showed their work in the plots and orchards, due to the high migration of their partners to cities and agricultural plantations in search for employment. Moreover, it was reported that women generally take care of the orchards and they are also the ones who maintain the seeds for the next seeding, therefore they should be the main stakeholders if looking for agrobiodiversity seeds.

129. Despite this, the Project did not collect information from all community trainings and an attendance sheet per gender was not used during the activities, nor was a list of the members of the co-management committees divided by gender. For example, the evaluation confirmed that for the development processes of the RPFCH co-management plans, 18 meetings were organized which saw the participation of 115 women and 92 men (207 people).¹²³ Moreover, the Project was instrumental to strengthen women's leading role in the Project, in local politics and at managerial level within the communities. For example, they acted as promoters, participants in water councils and also as presidents of parish councils (especially in Quimiag Parish). At the level of micro-basins, the following was observed:

- TH Cebadas: women empowerment to take on leadership roles in the decision-making processes and implementation of the monitoring and verification system.
- Micro-basin of Chimborazo/San Juan: women involvement in the management committee and in the water and consumption council.
- Micro-basin of the Zula River: the treasurer of the management committee in the micro-basin is a woman.

3.5 Sustainability

130. The question that guided the analysis was: *How sustainable and replicable are the outcomes achieved by the project at an environmental, social, financial and institutional level?*

Finding 5: Sustainability of the Project's main actions is **moderately likely**. The Prefect has committed to continue employing a professional largely involved in the Project's OPIM, together with two technicians hired in 2017 within the GADPCH Environmental Management Coordination. In such way, GADPCH can continue supporting the strengthening of activities recently carried out, or that are priorities within LUDP, in particular under the "Biophysical Component" (as the management plans and the implementation of payments for environmental services in the parish DAGs in Quimiag and Candelaria). Moreover, thanks to the approval of the new Law on Agrobiodiversity and Seeds in 2017, together with the setting up of two bio-knowledge centres under the GADPCH administration (supported by the agrobiodiversity project), there are new opportunities to strengthen the Co-management Committees for the conservation and sustainable use of biodiversity, in particular agrobiodiversity. However, due to the budget cuts in the country since 2016 and the change of authority expected for 2019, it is clear that GADPCH needs an integral monitoring system of the results (of the LUDP) and risk management in its planning, with the aim of making informed decisions aimed at conservation and sustainable development. In particular, the evaluation believes that biodiversity conservation and sustainable use could play an important role in supporting family farming adapt to climate change (fundamental to ensure food security

¹²³ Second quarterly report, 2017.

and sovereignty) and support trade in general, and vicuña wool and payments for environmental services in particular, that could contribute to encouraging the local economy and to reducing risks associated with rural poverty.

3.5.1 Institutional sustainability

131. The strong empowerment by the Project of the highest provincial authority (GADPCH Prefect) could change after the new medium-term elections (2019). The current Prefect is greatly appreciated by the population and it has been confirmed that he is already taking real measures to keep leading the political processes related to the protection and management of water resources, the production and trade of wool of Andean camelids and to ensuring food security. Moreover, the Prefect's decision to continue employing a professional largely involved in the Project's OPIM, together with two technicians hired in 2017 within the GADPCH Environmental Management Coordination, is a positive sign to institutionalize the strengthening of recent activities implemented and pivotal for the Project within these political processes (under the LUDP framework).
132. However, due to the close relations established with the Environmental Management Coordination during the Project (instead of the Planning Coordination as stated in the ProDoc) a sectoral approach may be carried out, while the province needs it to be more multisectoral in order to encourage sustainable development and the elimination of extreme poverty with the full integration of the conservation of natural resources, including biodiversity and agrobiodiversity. Moreover, the evaluation has confirmed there are positive processes of intergovernmental interactions (in particular among the DAGs at cantonal and parish level), agreements with second-level organizations, grassroots organizations and new interinstitutional commitments (for example, an interinstitutional agreement led by GADPCH to continue the hydrometeorological network and the monitoring and verification system in the province); this paves the way to favourable conditions to reach a more integral vision of the problem (and of the most pertinent risks) in the province in general and in the paramos in particular.
133. Yet, there are obstacles to the Project's most important actions and results. First, the evaluation confirmed with the various sectors of the government interviewed, especially at national level, that it is hard to have good intersectoral coordination to reach a more integral vision of sustainable development (territorial, socio-cultural and economic) and where biodiversity conservation is a horizontal objective. For example, the GEF representative is in the Ministry of Environment, but his convening power within the Ministry of Agriculture and Livestock and other binding ministries is limited. Second, it is hard to create this vision due to political instability. In fact, interviews with the communities confirmed that the annual change of authority can weaken the training provided by the Project and the high staff turnover at all levels of the public sector makes it harder for local and governmental authorities to consolidate informed decision-making processes which were previously coordinated and agreed upon. Third, the beneficiary communities received technical support and work aimed at environmental protection in production, but not in commercial development of its products, nor in the implementation of compensation mechanisms for environmental services. Certainly, there was an institutional weakness that could question the beneficiary communities' ability to cover the costs of operation and maintenance of these practices until they have enough incomes to reduce their dependence on external financial sources. The evaluation did not detect the direct economic benefits of many initiatives and

the communities that received hybrid seeds confirmed they will have difficulty in covering the production costs in future campaigns, especially if they experience loss due to freezing.

134. Another weakness related to the last obstacle aforementioned is the lack of awareness on the role of the partners in business development. For example, there was a lack of business partnership development in the milk cooling centre, the selling of vicuña wool and of other camelids, handicraft marketing and work related to the café-restaurant built in the RPFCH.
135. Finally, another obstacle to the identified institutional sustainability is related to the lack of an appropriate number of qualified technicians to guide the supporters of the Ministry of Agriculture, Livestock, Aquaculture and Fisheries, the environmental co-management committees, etc. in the production and marketing of agroecological products, in the management and optimization of water use and in adaptation.

3.5.2 Financial sustainability

136. The reduction of the state's economic resources, especially since 2016, can have consequences on continuity as well as on the maintenance of some project products. Provincial and local authorities have expressed their commitment and desire to keep supporting the communities in the conservation of paramo for water resource, even though some affirm that they are and will be affected by budget cuts. RPFCH authorities affirmed that their budget was not enough to cover infrastructure costs and that in fact they had problems covering what they previously had, even more with the project's extras. As for the compensation mechanisms for environmental services there is no regulation to establish the regulatory framework needed to take advantage of this initiative. However, the fact that GADPCH is committed to approving such CES, two pilot projects and an agreement in a large number of communities to increase CES shows there is an important commitment by all stakeholders to make CES work in Chimborazo.¹²⁴

3.5.3 Environmental sustainability

137. RPFCH's environmental sustainability has been strengthened by the development of the new management plan for the Reserve, together with work being done that is already contributing to reducing visitor's negative impact (through the equipment of the environmental interpretation centre, improved paths, etc.). However, RPFCH's financial sustainability is still weak and that of the maintenance of its flora and fauna communities is unsure due to information and monitoring gaps.¹²⁵
138. Environmental sustainability in the RPFCH's buffer zone and in the five micro-basins has been supported by the implementation of the co-management plans and management plans respectively, as well as by the platforms and networks in place and with short- or medium-term agreements. Moreover, it was confirmed that most conserved areas signed agreements with Socio Paramo. According to interviews, authorities have the resources to pay those who

¹²⁴ Moreover, interviews in Quito confirmed that the National Water Secretariat is developing the regulatory framework for the Law on Water Resources, Uses and Advantages (2014) aimed at clarifying the implementation of redistributive mechanisms in the country's water basins. This is currently being supported by the ECOCUENCAS project financed by the European Union WATERCLIMA Project (Watershed and Coastal Management in Latin America and the Caribbean).

¹²⁵ There is a need for spatial data on the coverage of the lots or protected areas, their altitudinal distribution and relations among one another to know if the size and composition is appropriate, if there are relations among areas at different altitude to allow altitudinal migrations when facing possible climate change and if the native fauna populations rely on their conditions for survival.

have signed, but do not have enough for new agreements. Those who take part in the agreements of the compensation mechanisms for environmental services will receive compensation for at least two years and then possibly more as long as the institutions renew their agreements to provide more funding.

139. However, the effects of climate change together with poverty and the lack of human and financial resources to promote adaptation represent serious risks which have not been appropriately included in these plans. Additionally, the lack of monitoring on the state of biodiversity, in particular local farming, makes it hard to promote such adaptation under actions that smallholder farmers can sustain at low costs. As for vicuña, as reported by the RPFCH authorities, the farmers who maintain it are becoming impatient because, so far, they have not satisfied their expectations and due to the problems with vicuñas incursion in their crops.

3.5.4 Project replicability

140. GEF projects aim at testing ways that can be used as good practices to be replicated in the future. Therefore, the Project did not carry out a cost-benefit analysis of the investments that make it possible to know the cost and replicate the models applied and its maintenance, not an analysis for future sustainability on a more significant territorial scale. However, starting from the general information and interviewees' opinion – in particular, that of the communities – the evaluation identified that replicability of the sub-projects received by the communities is highly unlikely due to the costs. The communities identify financial barriers to replicate actions and they hope that the authorities will help them "support" those who were left behind during the Project.
141. Of the actions implemented by the Project, the ones with a higher chance of being replicated/broadened could be the monitoring and verification system if the water councils find utility in the information collected and succeed in keeping partner's interest alive, as well as compensation mechanisms for environmental services that could be replicated by other provincial governments.
142. The training processes through workshops for the community delegates could lead to the replicability and capacity extension of all communities. However, during the evaluation it was noticed that delegates report back on the activities/training received but do not pass on such information; nor did they have the material to send to the communities due to the cost of the number of community members.

3.6 Lessons learned

143. This section's analysis was guided by the following question: *What lessons learned from the project, in terms of its design, implementation and sustainability can be used for future interventions similar to that of FAO in Ecuador, in particular of GEF and other donors in general?*
144. Starting from the analysis of the design, effectiveness, efficiency and protection of the Project's sustainability, the following lessons learned that can be useful for future projects were identified. Among these, the most relevant are:

Lesson 1. When there is no clear vertical nor horizontal intervention logic that identifies a sole final objective, it is difficult for the interested parties to reach an agreement for the management and internal monitoring system based on outcomes and tangible changes to adopt, which is important to facilitate learning and policy dialogue among said interested parties.

Lesson 2. The identification of elements that highly concern and interest the institutions, executors and participants (such as the reduction of the amount and quality of water) needs to be viewed as an opportunity to bring together the parties interested in developing a vision of comprehensive landscape management that includes the conservation of its biodiversity (such as the paramo and its water basins). In this way it is possible to give value and recognition to specific elements such as the conservation of endemic biodiversity as "a service" for regulating water, food production, etc.

Lesson 3. Without a comprehensive understanding of the landscape/territory, awareness campaigns in the sub-basins tend to reinforce participation and ownership of completed activities based on misconceptions such as the fact that the management of micro watersheds is to ensure water production (rather than being a life style); differently, awareness raising among interested stakeholders should aim at showing the importance of biodiversity conservation as one of the main topics for which the project received funding..

Lesson 4. The OPIM represents a feasible opportunity to decentralize the management and implementation of GEF projects. However, to improve its efficiency and efficacy it is essential to clarify its role and responsibilities during the design phase of each new project. In addition, it is important to ensure that the authorities involved participate in this process together with FAO in order to be aware of GEF's policies and principles and how they can be executed within the country's political and legal framework (and/or the area to face within this framework).

Lesson 5. For planning to be adequate, it must take into account the amount of time needed to hire and prepare contracts without delays, particularly for productive projects; also, it is important the duration of the contracts be based on the agricultural and forestry sowing calendar instead of the fiscal calendar. Moreover, under the OPIM modality, planning and coordination need to take into account the amount of time required for state and provincial processes and requirements beginning with project design.

4. Conclusions and recommendations

4.1 Conclusions

145. The **general conclusion** is that the Project is still very relevant to GADPCH and the local communities who consider conservation and sustainable use of natural resources in the paramos as a priority, especially due to the degradation of water resources and the approval of the Law in Agrobiodiversity and Seeds in 2017 together with the inclusion of conservation and sustainable use of agrobiodiversity in the National Biodiversity Strategy (2015-2030). Moreover, it supports the scope of GEF and FAO strategic objectives. It has been effective in reaching the specific objectives related to its three components, in particular progressing the management of the paramos in five micro-basins (Component 1) and of the RPFCH (Component 2) through environmental awareness, the creation of a regulation to implement compensation mechanisms for environmental services and the approval of regulations at parish and cantonal DAG levels to protect biodiversity and water resources. However, it only partially reached its development and environmental objectives as it did not succeed in establishing a good interrelation among the components to lead to an integral understanding of land management and the promotion of sustainable development in the province. More noticeable was the lack of integration of conservation and sustainable use of biodiversity (including agrobiodiversity) in the management plans, which the evaluation considers fundamental to support family farmers adapt to climate change and ensure food and nutrition security in the long-term, in agreement with the Law on Agrobiodiversity and Seeds (adopted in 2017). OPIM showed it is a viable management modality to implement GEF funds and to gather and use more co-financing funds than expected in the ProDoc. However, it was necessary to extend the Project by almost two years to reach the achievements mentioned above, and since about 20 percent of the budget was used during the last semester, it is clear that many activities will not be strengthened by the Project. Yet, the Prefecture's decision to continue the contracting of three Technical Project Team experts after project closure in May 2018 is a sign that there will be the necessary technical follow-up at least to strengthen the GADPCH priority activities.

Conclusion 1 – relevance. The Project is still very relevant, even though its design included many expected elements and results considered to be very ambitious due to GADPCH's limited capacity and limited resources in implementing large projects dedicated to territorial management in the paramos and which imply a broad range of interested parties. On the one hand, it answers the needs and proprieties of the various levels of stakeholders involved. For example, at national level it answers the current mandate of the Ministry of Environment to implement the National Biodiversity Strategy and of the Ministry of Environment and the Ministry of Agriculture and Livestock to implement the Law on Agrobiodiversity and Seeds approved in 2017. At subnational level in the Province of Chimborazo it corresponds to GADPCH's mandate of implementing LUDP. On the other hand, it is coherent with GEF's mandate in its Strategic Biodiversity Area (Objectives 1 and 2), as well as FAO's Strategic Objective 2. At national level it is coherent with the National Strategy for Biodiversity and the Strategic Plan of the National System of Protected Areas in Ecuador and, at provincial level, since the Project was identified with the participation of GADPCH, it supports the implementation of its current LUDP. Also, in terms of the beneficiary communities, the Project is very relevant because of the high level of acceptance, in particular the interest in conserving water resources due to the strong water reduction in the water basins in the last years.

Conclusion 2 – effectiveness. The Project reached its three components specific objectives, but only partially reached its development and environmental objectives. The achievement of important results was verified, as the creation of a management committee and management plans which are being applied in the five selected micro-basins, the adoption of a new management plan for RPFCH and the approval of parish regulations and resolutions dedicated to the conservation of paramo and biodiversity. However, project effectiveness was only moderately satisfactory as the large number of activities per component were carried out without establishing an integral vision with regard to territorial planning and sustainable development in the province. For example, biodiversity conservation in general and agrobiodiversity and endemic plants in particular were not fully integrated in the management, and the development plans of the economic activities did not appropriately integrate the marketing aspects of the products and services.

Conclusion 3 – efficiency. The OPIM modality proved it is a viable mechanism to transform GEF funds in positive products and results. Moreover, as a national identity it can find and implement more co-financing funding than expected in the ProDoc. Furthermore, it was confirmed that it made an important contribution to local planning capacities in line with the LUDP guidelines based on participatory consultations with the different interested parties, including local communities. Yet, the evaluation concludes that project efficiency was moderately unsatisfactory as a two-year project extension was needed, and OPIM experienced some shortcomings in its management and external problems that did not reduce in time and that contributed to making project extension for the two years mentioned necessary. In particular, there was no follow-up of results and risk management to reduce the problems related to the slow project implementation in a timely manner; moreover, OPIM and FAO responsibilities were not clarified in the ProDoc, neither at the beginning of the activities nor during implementation (especially after the change in OPIM staff in 2013 and then during the Mid-Term Evaluation) to guide planning, implementation, follow-up and communication in the most efficient way possible.

Conclusion 4 – regulatory values. The Project included active stakeholder participation in project design and implementation. For example, local communities showed their satisfaction with regard to their participation in the structure of the management committees and the creation of the management plans of the five micro-basins involved, as well as in the co-financing of its implementation. An exception was the inclusion of the park rangers in the new management plan for RPFCH. Moreover, the evaluation is satisfied that the Project integrated a focus on gender. Women interviewed confirmed they played an important role in the Project, including women training to reach leadership positions in the beneficiary communities. However, the Project did not establish a follow-up system for the women who gained the most access to financial resources, information or training after the training carried out by the Project.

Conclusion 5 – sustainability. The evaluation noticed the sustainability perspectives for some activities are favourable as, on the one hand the Prefecture extended the contracts of three OPIM professionals to carry on the Project's priority activities with the GADPCH structure and, on the other hand, the implementation of management plans and payments for environmental services in the parish DAGs in Quimiag and Candelaria reached co-financing agreements similar to the activities to be promoted under the "Biophysical Component" (3.2 of the LUDP). In other cases, the evaluation is not satisfied that the GADPCH has the necessary resources to ensure the sustainability of some activities supported by the Project, as in the case of the maintenance and increase of the area for water collection, the long-term continuity of technical follow-up services to progress with the conservation and sustainable use of natural resources in the province, or the strengthening of established economic activities, in particular with regard to the marketing of vicuña wool. Finally, it is possible that the replicability of priority activities is limited due to a lack of information and

data, as an analysis of its cost-effectiveness, to justify its replication and because of the budget cuts since 2016 which imply a lack of funding to broaden them.

4.2 Recommendations

146. The evaluation team suggests the lessons learned during past projects are documented and disseminated, and that the following recommendations are taken into account during future projects.

Recommendation 1 to the GADPCH and FAO-EC – systematization. Identify, document and disseminate, by means of an inclusive analysis with the final beneficiary parties, the final lessons learned and good practices of the Project, and systematize the most relevant so that GEF and FAO apply them in future projects and in the policy dialogue with the Government of Ecuador. Similarly, collect information regarding the elements that led to the weaknesses, in order to include them in the risk analysis and prevent them.

Recommendation 2 to GEF and FAO (headquarters and FAO Representation in Ecuador) – regarding the objectives, indicators and management of risk in the projects funded using GEF funds. When designing future projects, they should define a clear and coherent intervention logic based on a final objective and observing the vertical relationship between specific objectives (components) as well as the horizontal relationship between such to achieve a comprehensive vision.

Suggestions:

- 4) The objectives must be aligned with GEF and FAO requirements in order to observe the relevant international policies and plans (for example, the Aichi Targets) as well as national and subnational ones (for example, the LUDP) and be realistic pursuant to the duration and resources available. In addition, they should be based on a prior analysis of the needs and capacities of the interested parties and final beneficiaries and specific training regarding the regulation the OPIM applies. The cross-cutting objectives such as, for example, gender equality and governance must be explicit in the vertical objectives.
- 5) The application of indicators must be based on outcomes and tangible changes made that have base lines (geo-referenced where relevant) to facilitate the comprehensive analysis of the Project, and to define targets for specific periods of time.
- 6) The risk assessment must be classified in accordance with GEF good practices (high, medium and low) and clarify the risk mitigation measures classified as high and medium that must be updated during the execution.

Recommendation 3 to GEF, FAO – regarding environmental indicators for the national and subnational public authorities. Environmental indicators must be geo-referenced where relevant (to understand the interaction between the local and global dimensions) and have a dedicated budget to be able to report the contribution of each project to the most relevant international, national and subnational environment objectives. For example, regarding the conservation of the endemic species indicated in section 3.3 of the ProDoc, an indicator should have been established with its base line using sources such as the Red List of threatened species of the International Union for the Conservation of Nature (IUCN), the subjects of conservation identified in the document to

support the Management Plan of the RPFCH (contracted at the start of the Project), or the surveys regarding agrobiodiversity performed by the agrobiodiversity project funded by GEF.

Recommendation 4 to FAO (headquarters and FAO Representation in Ecuador) - regarding the capacity of the counterparts. The role of FAO Ecuador must be clarified to perform the rating of the capacities of the counterparts and with their participation design a plan for training the executing entity in the areas where it has weaknesses or limitations. Similarly, the evaluation of the capacities of the counterparts must include a study of the conditions of the context and of GEF and FAO regulations, as well as national and local regulations.

Recommendation 5 for GEF and FAO (headquarters) – regarding the OPIM. Due to the complexity of the requirements and/or of the options that the GEF projects implemented with the "OPIM" modality present during project design, it is important to have an operating manual that clarifies their responsibilities regarding the local authorities so that at the start of project operations GEF and FAO procedures and policies are correctly applied in the planning, implementation and monitoring of the Project.

Suggestions:

- 3) The manual must: i) clarify the responsibilities of the interested parties, particularly of FAO with regard to the authorities responsible for executing the project in the OPIM modality; ii) include the training that FAO should offer (see Recommendation 4) to the local executors so that they apply the manual correctly; and iii) have a subheading profiling the ecosystems included in the Project and the requirements for their conservation (particularly their biodiversity) pursuant to its ecological dynamics and in accordance with GEF and FAO policies on the matter.
- 4) In projects that include production landscapes, developing a comprehensive vision based on a description of how the conservation would be integrated within sustainable development practices is recommended.

Recommendation 6 to the Office of the GADPCH – about the content of future biodiversity conservation and local development programmes. Ensure that GEF projects focus on the integration of biodiversity conservation within production landscapes that promote awareness raising campaigns on the role of agrobiodiversity as a means to increase the resilience and food sovereignty of local communities vulnerable to the effects of climate change.

Suggestions:

- 5) Promote a comprehensive vision of land development and planning that includes the *in situ* conservation of agrobiodiversity by means of an assessment and recognition of local knowledge of peasant men and women and their native technologies.
- 6) Identify the agrobiodiversity that can generate economic income (in accordance with the Law on Agrobiodiversity and Seeds).
- 7) Identify friendly practices for the conservation of the species of flora and fauna in the productive landscapes and promote such by means of consultations with the local producers (particularly women) and other similar projects/countries (within the country and in other Andean countries).
- 8) In addition, for the conservation of biodiversity in Protected Areas and for the development of a comprehensive vision of sustainable development in a landscape/territory (such as the paramos), it is recommended to implement awareness raising campaigns with the aforementioned focus to develop awareness of the intrinsic

and instrumental values of agrobiodiversity so that they are fully included and integrated in the development plans (LUDP), the sub-basin management plans and other relevant plans.

Recommendation 7 to FAO Ecuador and to GADPCH – regarding the sustainability and replication of the outcomes. FAO must consider the allocation of dedicated funds to provide technical assistance in the post-closure phase of GEF projects so that beneficiary authorities such as GADPCH apply an internal monitoring and surveillance system (based on outcomes and tangible changes with base lines taken from relevant studies, the ProDoc, etc. and their respective targets) whose objective it is to monitor the development plans (such as the LUDP).

Recommendation 8 to FAO Ecuador and GADPCH – regarding communications. Designing and implementing a communication strategy in accordance with the needs and interests of the different interested parties to ensure the spreading of the materials produced by the Project is recommended. For example, at the level of the local communities, the communication strategy must focus on promoting and optimizing the information centres of the communal areas of the communities as a mechanism to distribute, on a larger scale, the training materials produced by the Project to target groups identified within the communities.

5. Appendices

Appendix 1. List of key people interviewed

Date, Place and Name	M	F	Position
Sunday, 15/10/2017			
Evaluation team			
Lavinia Monforte		1	Coordinator of FAO Rome evaluation mission
Warren Olding	1		Evaluation team leader and Head of final evaluation mission of Agrobiodiversity project
Germán Luebert	1		Head of mid-term evaluation mission Napo project
Monday, 16/10/2017			
FAO Ecuador			
Mr Walter Salas	1		FAO security focal point
Ms Johanna Flores		1	Coordinator of the portfolio for projects financed by GEF
Mr Juan Calles	1		Coordinator of FAO-EC evaluation mission
Dr Karina Bautista	1		GADPCH Environmental Coordination Officer
Dr Carmen Altamirano	1		Technical Manager of PROMAREN Project
Tuesday, 17/10/2017			
FAO Ecuador			
		1	Assistant of FAO Representative in Ecuador
Mr John Preissing	1		FAO Representative in Ecuador
Juan Calles			Officer in charge GEF – FAO – EC Portfolio
National Assembly (Congress), Quito			
Mr Mauricio Proaño	1		Assemblyman, former Vice President of the Commission for Food Sovereignty, Agricultural Development and Fisheries and currently member of the Commission for Economic Development and Microenterprises
Mr Raúl	1		Assemblyman's counselor
Wednesday, 18/10/2017			
FAO Ecuador			
Mr Juan Calles			Coordinator of the project (FAO-EC)
Vanessa Cáceres		1	Officer in charge of Administration FAO-EC
Coordination and questions meeting with the FAO Office of Evaluation (OED)			
Lavinia Monforte		1	Coordinator of FAO Rome evaluation mission
Warren Olding	1		Head of final evaluation mission of Agrobiodiversity project
Germán Luebert	1		Head of mid-term evaluation mission Napo project
Thursday, 19/10/2017			
FAO Ecuador meeting, Quito			
Walter Cabascando	1		Monitoring Manager (FAO-EC)
Meetings at the Ministry of Environment (MAE), Quito			
Ms Valesca LLanez		1	GEF Focal Point
Ms Marcela Torres		1	Coordinator of Protected Areas
Mr David Veintimilla	1		CITES Focal Point

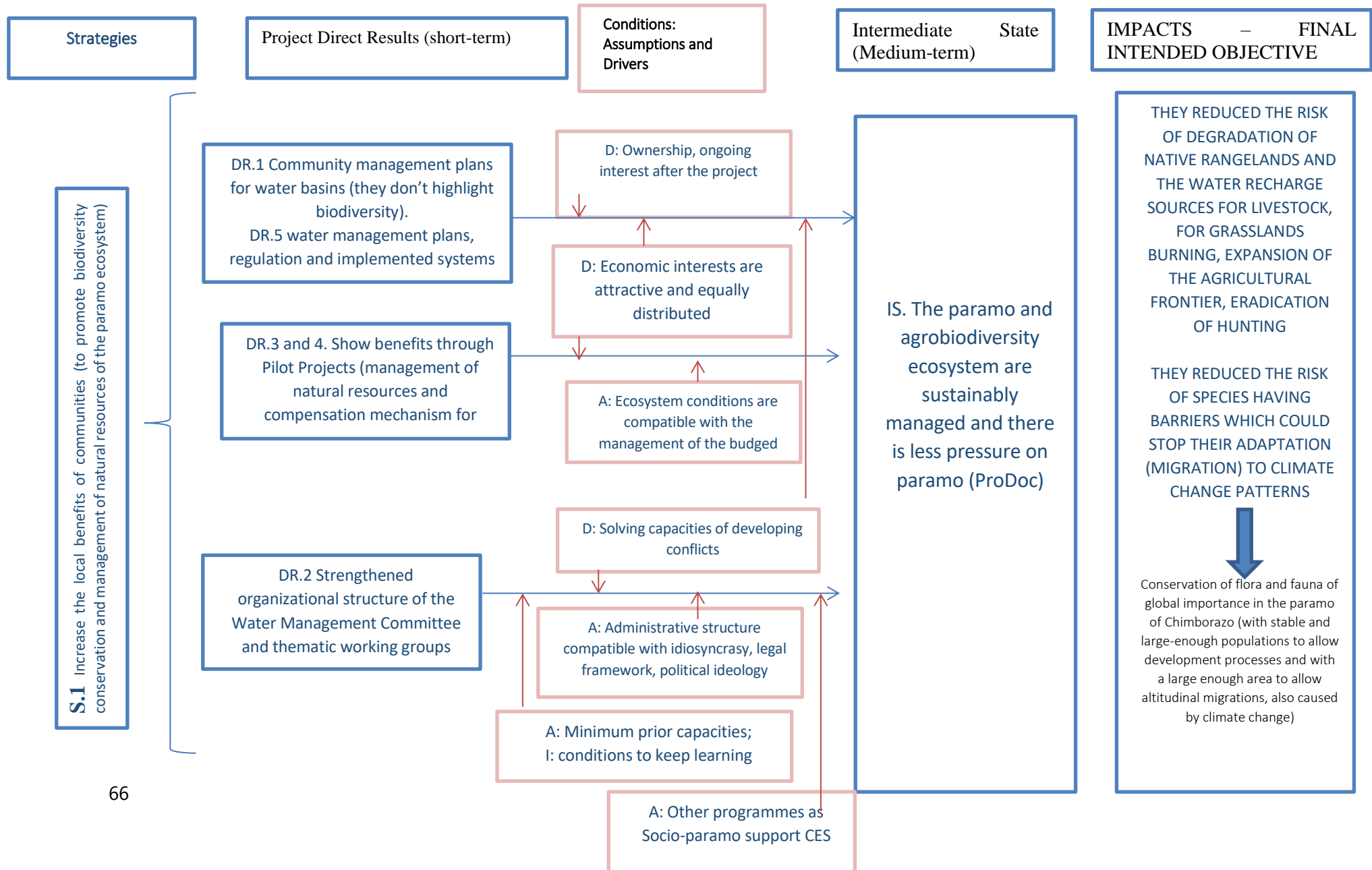
Mr Andrés Factos	1		Biosecurity Coordinator
Dr Wilson Rojas	1		Biodiversity specialist
Friday, 20/10/2017			
Meetings at the Ministry of Agriculture and Livestock (MAG), Quito			
Mr Byron Santiago	1		Technician of Agrobiodiversity Management
Ms Erika Zarate		1	Director of Alternative Marketing Circuits Management
Mr David Sánchez	1		Specialist in Alternative Marketing Circuits
Mr Pablo Izquierdo	1		Director of Technical Regulations
Mr Juan Narváez	1		Policy Director, Secretary of Policy Director
Monday, 23/10/2017			
Environmental Coordination Office – Focus Group with project Technicians			
Karina Bautista		1	Head of GADPCH Environmental Management Coordination
Carmita Altamirano		1	Technical head of the project
Diana Arellano		1	Andean systems. Productive systems
Sandra Guadalupe		1	Project social technician
Felipe Guerra	1		Technician in charge of CES in the Rio Blanco micro-basin
Mónica Veintimilla		1	Project financial assistant
Verónica Guilcapi		1	Project monitoring technician
Diana Arellano		1	Technician of Andean Agroforestry system
Meeting Parish Council San Juan Management Committee			
Marco Sislema	1		Chair of San Juan Parish assembly – Delegate of President San Juan.
Pascual Tacuri Aucancela	1		President of Chimborazo River micro-basin communities
María Magdalena Guamushi		1	President of water consumption commissions MR-CH
Miguel Lema Espinosa	1		President of irrigation water commission MR-CH
Wilson Benítez.-	1		Zonal Technician of MAG
Feddy Costales	1		Delegate of CODESPA Foundation
Aurelio Inga	1		Government Technician of San Juan Parish
Tambohuasha community, San Juan Parish, Riobamba Canton			
María Eduarda Duchi		1	GADPCH Promoter
Justo Silva	1		Delegate of CODESPA Foundation
Artesano Juan Tenemaza	1		Training consultant in dyeing and crafts
Adela Flores		1	President of Asociación Alpaqueros
Manuela Gualancañay.		1	Manager of Asociación Alpaqueros
Ángela Tacuri		1	Secretary of Asociación Alpaqueros
Focal group (30 people)	4	2 6	Asociación Alpaqueros
Pulingui San Pablo Community, San Juan Parish, Riobamba Canton			
Luis Toapanta	1		President of Asociación Turismo comunitario Casa Cóndor visits tourist facilities and craftwork markets
Mariano Toaza	1		President of Cóndor Mirador community
Focal group (30 people)	6	2 4	Asociación Turismo comunitario Casa Cóndor visits tourist facilities and craftwork markets
Chimborazo and Santa Martha Community, San Juan Parish, Riobamba Canton			
Participants beneficiaries	/	2 1	Observation of agroecological vegetable garden. Micro-reservoir and installation of irrigation systems with dispersers. Two people (one man and two women)

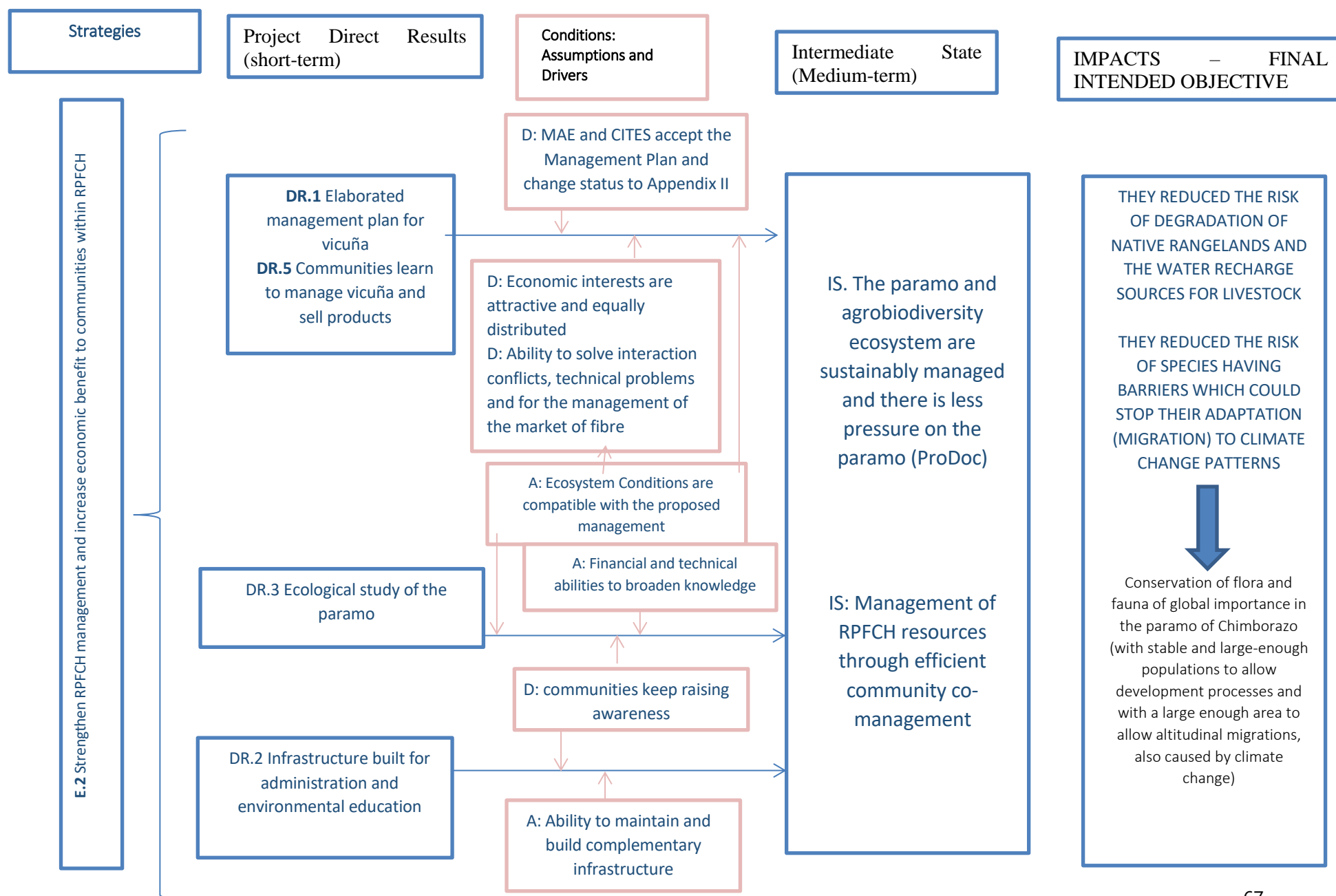
Tuesday, 24/10/2017			
Individual meetings GADPCH Office – Project Unit			
Mónica Veintimilla		1	Project Financial Assistant
María Eugenia Paredes		1	GADPCH Financial Coordinator
Verónica Guilcapi		1	Project evaluation and monitoring technician
Field visit at the Chimborazo Fauna Production Reserve			
Edgar Noboa	1		Forest Ranger Chimborazo Natural Reserve
Wednesday, 25/10/2017			
Ministry of Environment – Chimborazo Fauna Production Reserve – Riobamba			
Marcelo Pino.	1		Provincial DIRECTOR Ministry of Environment CHIMBORAZO
María Elena Guaña		1	Head of Chimborazo Natural Reserve
Field visit - Cebadas COTHICE			
Segundo Vimos Guargualla	1		President of the Co-management Committee - COTHICE
Pamela Muñoz (vegetable garden)		1	Project participant
Ángel Naula	1		Secretary
Delfín Apuyol	1		Participant (reservoir tank)
Jorge Ayol	1		MAG Cebadas Zonal technician
María Fabiola Tene		1	Beneficiary of the irrigation commission of Cebadas
Cesar Flores	1		President COICE
Juan Zárate	1		Secretary of Water – Riobamba Area
Focal group (20 people)	9	1 1	COICE – COTHICE
Visit Irrigation Board to watch monitoring and verification system (SIMOV) teams			
Maria Fabiola Tene		1	Beneficiary of the irrigation commission of Cebadas
Field visits			
Focal group (8 people)	3	5	Visit to the project on physical and biological protection of water sources and drainage basins
Focal group (5 people)	2	3	Visit to the project on Agroecology, Inmaculada community
Focal group (7 people)	3	4	Visit to the project on water optimization systems, Cenán Community, Cebadas Parish, Guamote Canton
Thursday, 26/10/2017			
Field visit MCR Zula - Totoras Pamba			
Pedro Vellicela	1		President of the Co-management Committee Communities of MCR Zula
José Miranda	1		President of the irrigation water commission of MCR Zula
Eudolia Ortiz		1	Treasurer of the Co-management Commission of MCR Zula
Ilario Toapanta	1		Vice-president of the community
Manuel Guamán	1		Project promoter
Focal group (19 people)	1 4	5	MCR Zula Joint Management Commission
Focal group (60 people)	4 0	2 0	Beneficiaries water conservation project in Totoras community - Sector Cucho and Pampa. Visit to the projects.
Focal group Totoras Llanoloma community (10 people)	4	6	Beneficiaries productive project in the micro-basin, Achupallas Parish, Alausí canton - VISIT

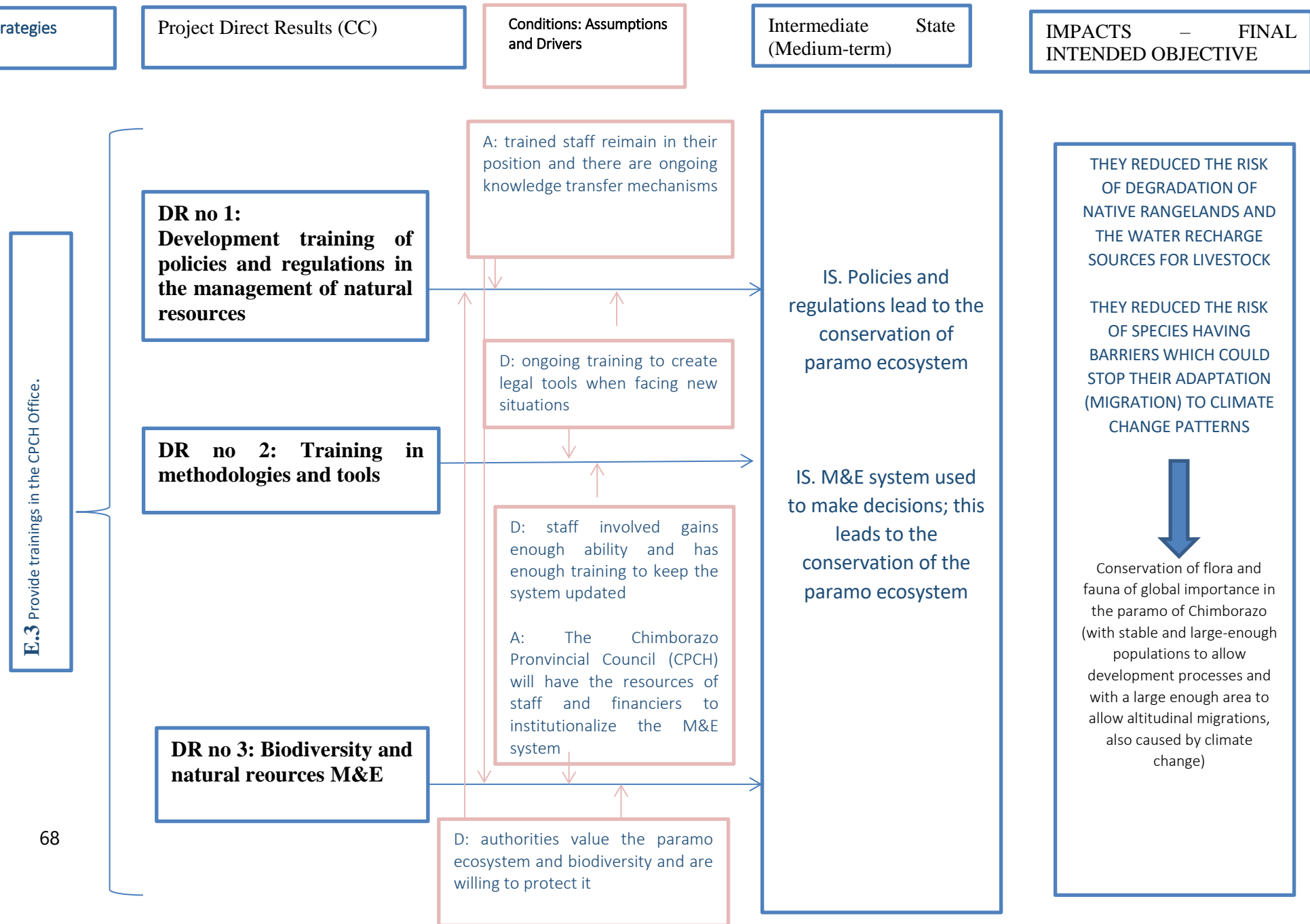
Focal group Chipcha community (8 people)	3	5	Beneficiaries productive project in the micro-basin, Achupallas Parish, Alausí canton - VISIT
Focal group Totoras Centro community (7 people)	3	4	Beneficiaries micro-basin diversification project - VISIT
Field visit to watch the high-altitude training lagoon			
Focal group (21 people)	1 5	6	Beneficiaries of the project High-altitude Lagoon
Friday, 27/10/2017			
GADPCH Prefecture			
Mr Mariano Curicama	1		GADPCH Prefect
Visit to MCR Atapo – Palmira – Zona Guamote			
Manuela Tabay		1	
Miguel Marcatoma	1		President of the Decentralized Autonomous Government of Palmira Parish
Martha Roldan		1	Vice-president of the Decentralized Autonomous Government of Palmira Parish
Ventura Daquilema	1		President of the Communities of the Co-management Committee of MR Atapo Pomachaca.
Patricio Roldán.	1		President of the irrigation water commission MCR-AP
Marcelo Villalba	1		President of the consumption commission MCR- AP
Manuel Criollo	1		Treasurer of the Co-management Committee of MCR- AP
Focal group (25 people)	2 1	4	Co-management Committee of Atapo River Pomachaca Micro-basin
Focal group (15 people)	1 0	5	Beneficiaries conservation project in Quilloto Community, hills lagoon, Palmira Parish
Ms Sandra Guadalupe		1	Social technician – (in charge of training, dynamization and community organization)
Saturday, 28/10/2017			
Mr Alfonso Guzmán	1		Technical coordinator of the Agrobiodiversity project in Chimborazo
Sunday, 29 /10/2017			
Meeting in the Quimiag Parish Board			
Ms Margarita Moreano		1	President of the Decentralized Autonomous Government of Quimiag
Ms Yolanda Asitimbay		1	Vice-president of the Decentralized Autonomous Government of Quimiag
Ms Ana Judith Jara		1	Spokesperson of the Decentralized Autonomous Government of Quimiag
Mr Sergio Guarco	1		Spokesperson of the Decentralized Autonomous Government of Quimiag
Ms María Isabel Lara		1	Technician of the Decentralized Autonomous Government of Quimiag
Mr Luís Hernandez	1		President of MCR-Blanco Co-management Committee
Focal group (17 people)	9	8	Members of the Blanco river Co-management Committee
Meeting in Verdepamba Milk Cooling Centre			
Focal group (8 people)	3	5	Beneficiaries of Productivo Project - Association of milkmen ASOPROALTAN. Milk cooling plant. Verdepamba, Zoila Martínez and Rayos del Sol.
Monday, 30/10/2017			
GADPCH project offices			

Ms Valeria Espinosa		1	Planning Coordinator
Ms Patricia Cueva		1	External consultant hired for Systematization
Ms Carmen Altamirano			Technical Project Manager
Ms Hernán Oleas	1		Technician in charge of projects with MAE and networks
Ms Felipe Guerra			Technician in charge of CES
Final exchange work meeting with project managers with technical unit of the project			
Ms Karina Bautista			Environmental Coordination
Ms Carmen Altamirano			Technical Project Manager
Saturday, 4/11/2017			
Interview in Quito			
Santiago Cruz	1		Ancestral food chef
11/2017			
Skype interview with ROME office LTO PROMAREN FAO			
Lucas Fe d'Ostiani	1		FAO LTO of the project, ROMA headquarter
Monday, 27/11/2017			
Skype interview with office ROMA Liaison FAO – GEF			
Hernán González /	1		FAO-GEF Liaison Officer
Tommaso Vicario	1		FAO-GEF Liaison Officer
Total	2 0 8	1 7 9	

Appendix 2. Reconstruction of the PROMAREN Theory of Change







Appendix 3. Documents consulted

Evaluation Guidelines:

- Guidelines for GEF Agencies in Conducting Terminal Evaluation for Full –sized Projects. April 2017
- GEF 2020 – Strategy and GEF 6 Strategic Priorities, 2016
- Power Point Estructura y Marco Estratégico de la FAO
- FAO. Program Committee on FAO's Corporate Strategy on Capacity Development. Hundred and fourth session. October 2010.
- FAO, Acción Hambre, Actionaid, AECID, Federación Internacional de Sociedades de la Cruz Roja y la Media Luna Roja, World Vision 2015. Consentimiento libre previo e informado. Un derecho de los pueblos indígenas y una buena práctica para las comunidades locales. Manual dirigida a los profesionales en el terreno.
- FAO 2011. Política de la FAO sobre pueblos indígenas y tribales.
- FAO 2013. Política de igualdad de género de la FAO. Alcanzar las metas de seguridad alimentaria en la agricultura y el desarrollo rural.
- Presentación de Power Point "Propuesta para la obtención de línea base del enfoque de género en las intervenciones de la Representación FAO-Ecuador"
- Matrix: *Draft Framework for Harmonizing Gender Analysis Across The Different types of Evaluations in OED*
- *OED. Framework for Capacity Development*
- *Notes on OED publications - Power point presentations. James Ayodele. Consultant Communications Specialist. 02 November 2015 / OED meeting*
- FAO 2017. Enhancing national delivery systems through operational partners (OPIM modality).
- FAO Office of Evaluation. by Masahiro Igarashi and Omar Awabdeh. Weaning from DAC criteria.

FAO documents:

- Marco Nacional de prioridades para la de Asistencia Técnica de la FAO en Ecuador 2013 - 2017

Project documents:

- Documento del Proyecto de Manejo de Recursos Naturales (PROMAREN)
- Evaluacion de Medio Termino
- Quarterly reports 2017
- PIR 2016, PIR June 2017
- Presentación Power Point elaborada por Unidad Técnica del proyecto: "EJECUCIÓN TÉCNICA Y PRESUPUESTARIA "Proyecto de Manejo de Recursos Naturales" (PROMAREN)2012-2017
- Minutas de reuniones del Comité Directivo del Proyecto: CDP 30 January 2013, CDP 13 March, CDP 8 October 2013, FAO – ETP Sept 2014, CDP December 2015; 2016, CDP August 2017.

- Plan de Trabajo 2017 del Comité de Cogestión de la Microcuenca del Río Chimborazo
- Plan de Trabajo 2017 del Comité de Cogestión de la Microcuenca del Río Blanco
- Convenio de Cooperación interinstitucional entre el Gobierno autónomo descentralizado de la provincia de Chimborazo y el Ministerio del Ambiente para la Ejecución del proyecto de Manejo de Recursos naturales de Chimborazo (GCP/ECU/080/GEF)
- Convenio de Entrega Recepción del Área Bar Cafetería y Caminería entre el Gobierno autónomo descentralizado de la provincia de Chimborazo y el Ministerio del Ambiente para la Ejecución del proyecto de Manejo de Recursos naturales de Chimborazo (GCP/ECU/080/GEF)
- Acta de Entrega Recepción de las Obras: Centro de interpretación ambiental en el Centro de visitantes de la Reserva de Producción de Fauna Chimborazo y Rehabilitación del sendero Los Hieleros, entre el Gobierno autónomo descentralizado de la provincia de Chimborazo y el Ministerio del Ambiente.
- Documentos de Proyectos 2016: 1) "Diversificación y manejo agroecológico de cultivos en la microcuenca del Río Zula, parroquia Achupallas, cantón Alausí, provincia de Chimborazo".
- Agroecología y Mejoramiento Ganadero en la microcuenca del Río Blanco, Parroquias Quimiag y La Candelaria, Cantones Riobamba y Penipe, Provincia de Chimborazo" Julio 2014
- Mejoramiento de pastizales para la producción lechera en la Microcuenca del Río Atapo-Pomachaca, parroquia Palmira y Tixán, cantón Guamote y Alausí, provincia de Chimborazo. 2014
- Producción Agroecológica en la Microcuenca del Río Chimborazo, parroquia San Juan, cantón Riobamba, provincia de Chimborazo. 2014
- Mejoramiento de pastizales para la producción lechera en el Territorio Hídrico de Cebadas (*Yasipán – Tingo – Ichubamba – Guarguallá*). 2014
- Protección biológica y física de fuentes hídricas en la Microcuenca del Río Atapo-Pomachaca, parroquia Palmira y Tixán, cantón Guamote y Alausí, provincia de Chimborazo. 2014
- Protección de fuentes hídricas, recuperación de vegetación forestal y arbustiva en márgenes ribereñas de la red hídrica de la microcuenca del Río Blanco, Parroquias Quimiag y La Candelaria, Cantones Riobamba y Penipe, Provincia de Chimborazo June 2014
- Convenio de cooperación interinstitucional entre el gobierno autónomo descentralizado de la provincia de Chimborazo y el gobierno autónomo descentralizado de la parroquia Achupallas - cantón Alausí. 2015 (documento sin firmar)
- Proyecto integral de co-manejo para 7 comunidades de Chimborazo, presentes en la zona de amortiguamiento de la Reserva de Producción de Fauna Chimborazo". Riobamba – Ecuador. August 2015

Project products

Regulations:

- Minutes of the following meetings: 1) reunión de socialización de propuesta metodológica para la construcción de ordenanzas – 18 July 2016; 2) conformación de Comisión Técnica Institucional y acordar hoja de ruta para construcción de ordenanza de biodiversidad – 27 July 2016; 3) conformación Comité Interinstitucional¹²⁶ - 23 August 2016; 4) approaching local stakeholders - 04 August 2016; 5) for the review of the logical framework – Institutional Technical Committee - 06 September 2016; 6) INTERINSTITUTIONAL TECHNICAL COMMITTEE MEETING - 14 September 2016; 7) 28 September 2016; 8) 07 October 2016; 9) 07 December 2016.¹²⁷
- Reviewed and approved regulation for the promotion of recovery, sustainable use, development and conservation of agrobiodiversity in the province of Chimborazo.
- "Acreditación de los procesos relacionados con la prevención, control y seguimiento de la contaminación ambiental en la provincia de Chimborazo." Regula la acreditación en todos los procesos ambientales"
- Regulation written but awaiting to be approved:
 - "Que fomenta el manejo sostenible y la conservación de los páramos y otros ecosistemas frágiles de la provincia de Chimborazo"
 - "Mecanismos de compensación por servicios ambientales"

Resolutions:

- San Juan Parish Resolution to control fires in forests, paramos and other fragile ecosystems; contamination of water sources with trash and other harmful elements and Creation of a Committee that takes part in the supervision and adoption of measures for the conservation of water sources and animal and plant species in particular, fundamental for food production.
- San Juan Parish Resolution to encourage the development of community activities, biodiversity conservation and environmental protection

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- ¹²⁶ The Interinstitutional Committee is made of:
 - Ministry of Environment
 - Ministry of Agriculture, Livestock, Aquaculture and Fishing
 - AGROCALIDAD
 - SENAGUA
 - CONAGOPARE
 - UNACH – SCHOOL OF ENVIRONMENTAL ENGINEERING
 - ESPOCH – FACULTY OF HUMAN RESOURCES
 - AYUDA EN ACCIÓN
 - FUNDACIÓN MARCO
 - SWISSAID
 - AGROBIODIVERSITY PROJECT
 - GIZ
 - COMICH

¹²⁷ Workshops in ten cantons with the participation of 299 women and 497 men.

Training Module contracted by the project for local developers:

- Módulo 1 "Gestión del saber, saber hacer y saber ser" (Management of knowledge, know-how and know-how-to-be);
- Módulo 2 "Planificación de cuencas hidrográficas" (River basins planning);
- Módulo 3 "Política pública, normativa ambiental y de derechos" (Public policy, Environmental and Rights Regulation);
- Módulo 4 "Diagnostico social y ambiental de los páramos y ecosistemas asociados"; (Social and environmental diagnosis of páramos and associated ecosystems)
- Módulo 5 "Manejo de conflictos en la gestión de los recursos naturales" (Conflict resolution in natural resources management).

Micro-basins Management Plans

- Management and Co-management Plan of the Micro-basin of the Atapo – Pomachaca River
- Management and Co-management Plan of the Micro-basin of the Blanco River
- Management and Co-management Plan of the Water Micro-basin of the Chimborazo River
- Management and Co-management Plan of the Micro-basin Zula River
- Management and Co-management Plan of the Micro-basin of the Water Area of Cebadas (Yasipan, Tingo, Ichubamba, Guargualla)

Compensation Mechanisms for Environmental Services

- Proposal of Implementation of the Compensation Mechanism for Environmental Services of the Micro-basin of the Blanco River (elaborated by the permanent consultant of the Technical Unit)
- ASSESSMENT OF ENVIRONMENTAL GOODS AND SERVICES IN THE ECOSYSTEMS OF PARAMO AND FORESTS IN THE PROVINCE OF CHIMBORAZO. Product 2: Prioritization and assessment of the environmental goods and services of the ecosystems of the paramos and forests in the province. 2017.
- ASSESSMENT OF ENVIRONMENTAL GOODS AND SERVICES IN THE ECOSYSTEMS OF THE PARAMO AND FORESTS IN THE PROVINCE OF CHIMBORAZO. Product 3: Proposal for the compensation of environmental goods and services. Nature Strategy Environmental Consultant.
- Agreements for the protection and conservation of remaining forests and paramos among the Parish Decentralized Autonomous Government of Candelaria and different owners of the Water Micro-basin of the Blanco River - Candelaria for the protection of their lots (some signed and some didn't).
- Agreements for the protection and conservation of remaining forests and paramos among the Parish Decentralized Autonomous Governments of Quimiag and different owners of the Water Micro-basin of the Blanco River - Quimiag for the protection of their lots (some signed and some didn't)
- Agreements for the protection and conservation of remaining forests and paramos among the Environmental Management Coordination of the Parish Decentralized Autonomous Government of Chimborazo and different owners of the Water Micro-basin of the Blanco River - Nabuzo for the protection of their lots (everyone signed)

Products for the Chimborazo Fauna Production Reserve

- *Plan de Acción Nacional para la Conservación y Manejo de la Vicuña*" (MAE, 2010)
- *Plan de Acción Nacional para el Manejo y la Conservación y de la Vicuña 2017 - 2021*" (MAE – PROMAREN 2017)
- *Actualización del Plan de Manejo de la Reserva de Producción de Fauna Chimborazo. Informe de consultoría, Eco ciencia. 2014*
- *Plan de Acción Nacional para la Conservación de la Vicuña. 2017 – 2021. Producto elaborado en el marco de la consultoría ASESORÍA E INVESTIGACIÓN ESPECIALIZADA (ASISTENCIA TÉCNICA PARA LA ACTUALIZACIÓN DEL PLAN DE ACCIÓN NACIONAL DE MANEJO Y CONSERVACIÓN DE LA VICUÑA de Consultoría con Nature Strategy, Consultores ambientales*
- *Informe de Asistencia técnica en tinturado natural de fibra de alpaca, llama y oveja, manufacturación de artesanías y terminados de calidad. Noviembre 2017.*
- Review, update and creation of the Reglamento para el Manejo y Conservación de la vicuña (vicugna vicugna) en el ecuador. Oct 2016
- Regulation proposal for the conservation and management of vicuña

Studies

- Consultoría para medición de los indicadores de resultado e impacto del proyecto de manejo de recursos naturales de la provincia de Chimborazo. Contrato 015-2017-DL

Other documents: legal framework and development plans

- Plan de Desarrollo y Ordenamiento Territorial de la Provincia de Chimborazo, 2015-2025
- Plan Nacional del Buen Vivir 2013 – 2017
- Registro Oficial Suplemento # 418, 10-9-2004. Ley Forestal y de Conservación de Áreas Naturales y Vida Silvestre.
- Registro Oficial Suplemento No. 983 de 12 de abril de 2017. Nuevo Código Orgánico del Ambiente
- Registro Oficial 305, Segundo Suplemento, 06 de agosto del 2014: Ley Orgánica de Recursos Hídricos, Usos y Aprovechamiento del Agua, Asamblea Nacional 2013-2017.
- Registro Oficial SAN-2016-0398, 07 de marzo del 2016: Ley Orgánica de Tierras Rurales y Territorios Ancestrales, Asamblea Nacional 2013-2017.
- Registro Oficial SAN-2017-0119, 05 de junio del 2017: Ley Orgánica de Agrobiodiversidad, semillas y fomento de la agricultura sustentable, Asamblea Nacional 2013-2017.
- La Gaceta Legislativa, Asamblea Nacional, agosto 2017: Ley Orgánica de Sanidad Agropecuaria.
- Ministerio del Ambiente: Estrategia Nacional para la Biodiversidad 2015-2030 y su Plan de Acción 2015-2021 (actualizada), 2016

Appendix 4. Agenda mission

Date and Time	Activities in Quito/the field
Sunday, 15 October 2017	
17:00-19:00	Meeting at the Hotel Amazonas with Lavinia Monforte, Warren Olding and German Luebert
Monday, 16 October 2017	
07:45 - 8:30	Introductory Security Meeting
8:00-11:00	Meeting with the evaluation mission focal point and GEF portfolio coordinator (reviewed agenda and introductory interview). Group work (reviewed evaluation matrices, interview protocols, contacts, etc.)
11:00-11:30	Opening of the mission
11:30-13:00	Meeting with the FAO Representation (administration) – interview on administrative matters in the management of the three projects
14:00-17:00	Skype meeting with those responsible for project implementation, GADPCH Environment Coordinator and project Technical Manager
Tuesday, 17 October 2017	
08:00-10:00	Meeting with the assistant of the FAO Representation in Ecuador
10:30-11:00	Meeting with representative John Preissing
11:00-13:00	Interview with Member of the Assembly Mr Mauricio Proaño
14:00-17:00	Interview with the person in charge of the GEF Portfolio, FAO Administration
Wednesday, 18 October 2017	
9:00-11:00	Interview with Vanessa Cáceres
11:00-13:00	Complementary interview project Coordinator (FAO Ecuador)
14:30-17:00	Coordination meeting with the evaluation team
Thursday, 19 October 2017	

9:00-11:00	Interview with person in charge of Monitoring FAO Ecuador
14:00-16:00	Ministry of Environment interview with the GEF Focal Point/Biodiversity/CITES
16:00-16:30	Interview with person in charge of Ministry of Environment Protected Areas
Friday, 20 October 2017	
09:00-11:00	Interview at the Ministry of Agriculture and Livestock
14:00-17:00	Office work
Sunday, 22 October 2017	
18:30	Accommodation in Riobamba
Monday, 23 October 2017	
08:00-9:00	Group interview of the Project, Environmental Management Coordination Office, Riobamba
09:30-10:00	<i>Transfer to San Juan Parish</i>
10:00-11:00	Meeting with the Co-management Committee of the micro-basin of the Chimborazo River and partner institutions
11:30-13:30	Visit to the Co-management Project, Pulinguí San Pablo Community, San Juan Parish, Riobamba Canton
15:30-16:30	Visit to Projects of the Micro-basin of Chimborazo (MCRCH) – Water optimization and sustainable livestock systems
	Accommodation in Riobamba
Tuesday, 24 October 2017	
08:30-12:00	Visit to the walk of los Hieleros (starting point)
14:45-16:45	Visit to the Environmental Interpretation Centre of the Chimborazo Fauna Production Reserve
16:45-18:00	Visit to places of refuge
18:00	Return to Riobamba
19:00	Accommodation in Riobamba
Wednesday, 25 October 2017	
09:00-11:00	Meeting with the Co-management Committee of the water area of Cebadas and partner institutions
11:00-11:30	Visit to the water station – monitoring and verification system (SIMOV)
	Visit to the project of physical and biological protection of water sources and watershed
12:30-13:30	Visit to the Agroecology project, Inmaculada community
13:30-14:30	Visit to the project for optimization of water systems, Cenán community, Cebadas Parish, Guamote Canton
16:50-17:50	Return to Riobamba

18:00–19:00	Meeting with the Provincial Director of the Ministry of Environment – Presentation of progress and results of the PROMAREN Project, Component 2
19:00	Accommodation in Riobamba
Thursday, 26 October 2017	
08:00-10:30	Transfer to the Micro-basin of Zula
10:00-11:00	Meeting with the Co-management Committee of the micro-basin of the Zula River and partner institutions Salón de Presidentes of the municipal DAG Alausí
11:15 - 13:00	Visit to the water conservation projects Totoras community (Sector Cucho- Pampa)
14:00-15:00	Visit to the productive project in the micro-basin Totoras Llanoloma community, Achupallas Parish, Alausí canton
15:30-16:30	Visit to the productive project in the micro-basin, Chipcha Llanoloma community, Achupallas parish, Alausí canton
17:00-18:00	Visit to diversification of the micro-basin project
	Return to Riobamba
19:00	Accommodation in Riobamba and meeting with the consultant in charge of the evaluation for the agrobiodiversity project
Friday, 27 October 2017	
09:00-10:00	Interview to the Prefect Mariano Curicama, Provincial Prefect of Chimborazo
8:00-11:30	Transfer to the Palmira Parish
12:00-12:30	Meeting with the Co-management Committee of the Arapo Pomachaca River micro-basin
13:00-13:30	Visit to the conservation project, high-altitude lagoon, Quilloto community, Palmira Parish
14:00-16:00	Return to Riobamba
16:30-18:00	Interview with Ms Sandra Guadalupe, Social Technician – (in charge of trainings, dynamization and community organization)
18:30	Accommodation in Riobamba
Saturday, 28 October 2017	
09:00-13:00	Visit to Riobamba markets (in search of native potatoes for sale)
17:00 – 19:00	Interview with Mr Alfonso Guzmán, technical Coordinator of the project on Agrobiodiversity in Chimborazo
19:00	Accommodation in Riobamba
Sunday, 29 October 2017	
8:00-15:30	Meeting with the Co-management Committee of the Blanco River and partner institutions. Quimiag meeting hall, Quimiag Parish, Riobamba canton
11:00-13:00	Visit to the Projects of the Micro-basin of the Blanco River (left bank)
19:00	Accommodation in Riobamba
Monday, 30 October 2017	

Final Evaluation of the Project: "Management of Chimborazo's Natural Resources"

08:00-9:30	Felipe Guerra
13:00-15:00	Ms Valeria Espinosa, GADPCH Planning Coordinator
15:00-16:00	Ms Patricia Cueva, external consultant for the Systematization project
16:00-17:00	End of mission meeting with Environmental Management Coordinator and Project Technical Leader
19:30	Accommodation in Riobamba
Tuesday, 31 October 2017	
09:30-12:30	Return to Quito
14:00-17:00	Office work
Saturday, 4 November 2017	
11:00-13:00	Interview in Quito - Mr Santiago Cruz, Head of ancestral food
Tuesday, 07 November 2017	
09:00-12:00	Finalize presentation together with Lavinia Monforte
13:00-15:30	Presentation of the evaluation findings of Project: Sustainable Management of Chimborazo's Natural Resources by GADPCH Environmental Management Coordinator and GEF Officer – FAO Ecuador
14:00-16:00	Finalize presentation
16:30-19:00	Presentation of the findings of the three evaluations to FAO Ecuador
Wednesday, 08 November 2017	
08:00-11:30	Finalize presentation for the FAO Representative in Ecuador
11:30-12:00	Coordination with Lavinia Monforte via Skype
12:00-13:00	Lunch with the Representative
13:30-14:30	Summary presentation of the preliminary findings, conclusions and recommendations of the three evaluations with the participation of Ms Monforte via Skype
15:00-17:00	Final coordination meeting among the three evaluators on the evaluation report
22:00	End of Mission with the Evaluation Team

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Appendix 5. Evaluation matrix

TOR criteria/No.	Questions and sub-questions	Evaluation indicators and assessment criteria	Project objectives (if available/clear)	Methods and sources to be used	GEF criteria and requirements
1. Relevance	Were the project strategy and actions appropriate for meeting the needs of all the stakeholders involved in matters of conservation and the integrated management of natural resources, including support for implementing policies and programmes by the Government of Ecuador, the GEF-5 (BD2 and BD4) and FAO (particularly SO2)?				
1.1	Coherence with GEF mandate/project eligibility – Are project approach, strategies and results in line with and did they contribute to the GEF Biodiversity Focal Area and its Strategic Objectives (BD2) and other Focal Areas (CC, LD, SFM/REDD+-1)?	<p>1.1.1 Nature and project relation to the GEF objectives and its Operational Areas (BD2, CC, LD, SFM1)</p> <p>Extent of alignment, adaptation and contribution of project design, implementation and results to the GEF proprieties</p> <p><u>Assessment criteria:</u> the evaluation can verify:</p> <p>a) if the environmental characteristics of the mountain ecosystems, their potential, their carrying capacity, ancestral use and vulnerability properly qualified for financing;</p> <p>b) if the ProDoc is aligned with the GEF principles and its priorities;</p> <p>c) the assessment of authorities, participants and project staff on the priorities relevant to GEF and its fulfilment</p>	<p>Alignment with:</p> <p>Strategic Objective 2 "Integration of Biodiversity in productive landscapes/seascapes and sectors", Strategic Programme (SP) 4 and 5.</p> <p>SP-4 Strengthening of the policy and the regulatory framework for biodiversity integration.</p> <p>SP-5 Promotion of Biodiversity goods and services markets</p>	<p>1) Analysis of the ProDoc and GEF strategic document to determine the level of integration with GEF priorities</p> <p>2) Interview to determine the level of understanding of the GEF priorities in the project</p> <p>PIRs</p>	Relevance (Project preparation and design and Effectiveness towards global results)
1.2	Political relevance – How does the project address key needs and priorities in terms of biodiversity conservation and agrobiodiversity, in supporting policies and programmes of national and provincial governments?	<p>1.2.1 Level of preparation of GADPCH and Ministry of Environment (MAE) in project design</p> <p>1.2.2 Level of project coherence with the policies of the central state (MAE – RPFCH), provincial DAG and parish DAGs. Has this coherence been kept?</p> <p>1.2.3 Level of project coherence with Chimborazo national and provincial priorities and with the national normative framework on agrobiodiversity; ii) Level of project coherence with institutional capacities</p> <p><u>Assessment criteria:</u> The evaluation noted that:</p> <p>a) the ProDoc is in line with the policies, proprieties and needs of the central government (mainly MAE and RPFCH) and GADPCH;</p> <p>b) there is evidence that the central government (MAE - RPFCH) / and GADPCH allocated funding to integrate the conservation of paramo biodiversity;</p> <p>c) is there political will to promote paramo conservation and its biodiversity and are there the necessary conditions for it?</p>	<p>➤ Conservation of paramos and related high-mountain ecosystems, through participatory planning of the management of water basins, organizational and institutional strengthening, pilot interventions, compensation mechanisms for environmental services and optimization and rationalization of water use in the Province</p> <p>➤ Strengthening of the management and conservation of the Chimborazo Fauna Production Reserve through the elaboration and negotiation of a national plan for the management of vicuña in Ecuador, a study of the Chimborazo Reserve and its buffer zone, the development and implementation of the co-management and development plans of the local capacities</p> <p>➤ Strengthening of the Capacities of the Provincial Government of Chimborazo for the Sustainable Management of Natural Resources, with special attention to paramos</p>	<p>1) Analysis of the ProDoc and FAO EC/GEF reports;</p> <p>2) Review official documents of the national state (MAE –RPFCH Management Plan – National Biodiversity Strategy) and provincial state (GADPCHs) including: Aichi targets</p> <p>3) Interviews with authorities, grassroots organizations to verify political will</p>	Relevance (Project design and implementation)

1.3	<p>Specific relevance – Does the Project still answer the needs of local/indigenous communities and other beneficiaries with whom activities are implemented?</p>	<p>1.3.1 Level of project coherence with the needs of communities and participants. Level of coherence of the actors and implemented strategy 1.3.2 Level to which communities feel the Project is in line with their priorities, that they were part of its design and keep feeling involved during implementation 1.3.3 Level of inclusion of their perspectives 1.3.4 Level to which communities feel the Project contributed to their wellbeing</p> <p><u>Assessment criteria:</u> the evaluation verified: a) if the design of the ProDoc answers to a participatory diagnosis on farmers' needs and/or is based on technical socio-economic information; b) If the implementation approach was participatory; c) participants' level of understanding on the importance of paramo conservation (water/biodiversity/ecosystem) and its implications at local and global level? And other aspects as i) food and nutrition security; ii) family income (selling the surpluses, value chains, etc.) Level of satisfaction of the participation approach? Community perception on project coherence with its requirements/level of motivation for their participation</p>	<p>1) Setting-up of participatory Management Plans taking into account the territory and setting-up of pilot project to show appropriate sustainable management for the conservation of paramo and biodiversity; 2) Management plan for vicuña and alpaca fibre for their appropriate management 3) Analysis of the participation strategy used Establishment of a Monitoring System of Natural Resources (biodiversity, climate, water)</p>	<p>1) Analysis of the ProDoc and PIRs; Mid-term Evaluation (MTE), technical documents (participatory management plans, training reports) 2) Analysis of the FAO Policy on Indigenous and Tribal Peoples 3) Interviews with participants' focal groups 1) Triangulation of security information and other sources (interviews, focal groups and direct observations); 2) Analysis of the Logical Framework (LF) to combine e it with the analysis of the context, conditions of the socio-economic and ecological context and legal-juridical framework of the area 3) Management Plans 4) PIRs 5) MTE / management response 6) Interviews with FAO-EC and GADPCH 7) Focal groups in communities/co-management committees/parish authorities</p>	<p>Relevance (Project design and implementation)</p>
1.4	<p>Design – Does project design provide the appropriate guidelines to achieve the expected results?</p>	<p>1.4.1 Level of coherence of project design with the desired results and coherence with corporate objectives (GEF FAO): a) Clarity of the definition of final objective (Global Environmental) and development objective b) Accuracy of the indicators proposed in the original and translated LF? Quality of indicators in the LF (are they SMART?) If they define or not component results and are in line with project objectives indicators. Type of indicators</p> <p><u>Assessment criteria:</u> can the evaluation verify: a) if the LF has a vertical and horizontal sequence in line with the integral and ecosystemic approach necessary for management at the level of the territory? b) if the indicators are smart? c) if it considers appropriate mechanisms in the collection of information? d) if it considers strategies to integrate communities and authorities in the conservation processes and sustainable management of paramo? e) if it promotes the creation of conditions (enabling environment) for the sustainable management and conservation of paramo and its biodiversity? f) if it considers the elements of the value chain to include social groups and if these are clearly linked to conservation? g) if it considers mechanisms to include authorities? h) if it considers a long-term risk analysis?</p>	<p>1) Conservation and sustainable management of paramos and biodiversity, strengthening of the political, legal and institutional framework, awareness raising, creation of training for participation in the planning and sustainable management of natural resources, 2) Development Objectives, sustainably re-establish and use agrobiodiversity, paramo ecosystems and improve food sovereignty of indigenous peoples 3) Component 1: Conservation of the paramos and the related upper mountain ecosystems 4) Component 2: Strengthening of the management and conservation of the Chimborazo Fauna Production Reserve 5) Component 3: Strengthening of the capacities of Chimborazo Provincial Government</p>		

1.5	Monitoring and evaluation (M&E) – Was there a monitoring and evaluation plan in line with SMART indicators and objectives with a focus on gender?	<p>1.5.1 Quality of the level of coherence of the LF with project objectives. Type of indicators.</p> <p>1.5.2 Existence of the M&E Plan</p> <p><u>Assessment criteria:</u> Indicators: the evaluation can verify that:</p> <p>a) LF/MdR of the ProDoc established the guidelines</p> <p>b) information was collected to know the progress of the project with regard to the indicators</p> <p>c) the indicators and information gathering for these indicators make it possible to carry out an ecological analysis with this integral understanding of interaction among activities, components and its vertical logic towards the final objectives</p> <p>d) SMART indicators and objectives with a gender approach based on national standards and of FAO</p> <p><u>Presence of a Monitoring and Evaluation Plan:</u> the evaluation can:</p> <p>a) analyse if the M&E Plan established in the ProDoc includes all necessary elements for good monitoring (institutional arrangements and description of ProDocs, reports and evidence of its implementation)</p> <p>the evaluation can verify:</p> <p>a) Appropriate adaptive management</p> <p>b) MTE implementation and management response</p> <p>c) if the monitoring and evaluation system supports the planning and implementation of the project communication strategy?</p> <p>e) the percentage of project staff who confirm the system offers the necessary information to prepare operational plans and progress/annual reports</p> <p>f) no. of interested actors who confirm the system offers the information to supports the planning and writing of progress/annual reports</p>	<p>Pro Doc: Establishment of a Monitoring and Evaluation Plan (reports and actors)</p> <p>Pro Doc Component 3: Monitoring system of biodiversity indicators and water quantity and quality (Hydrometeorological monitoring networks)</p>	<p>1) Analysis of the ProDoc and its logical framework/ProDoc results matrix - PIRS – Monitoring plan, MTE, management response</p> <p>2) Examination of the internal monitoring system established; comparison of the applied system with the relevant systems of the DAG (for the monitoring of results);</p> <p>3) Analysis of the ProDoc/logical framework and FAO manual on gender;</p> <p>4) Verify the established internal monitoring system and identify quality of indicators (not only focusing on the number of participants, but on improving access to services, information, training, etc. - rights)</p> <p>5) Analysis of the planning and monitoring tools: guidelines, type of quarterly reports, final reports. PIRs, MTE, MR, PSC (Project Steering Committee) meeting minutes</p>	Relevance
1.6	OPIM relevance - Is the OPIM implementation concept relevant in Chimborazo?	<p>1.6.1 Level of OPIM coherence with GADPCH competencies, capacities, political framework and project objectives</p>	<p>MTE includes a definition of Component 4 Project Management even though it is not officially accepted</p>	<p>Triangulation of secondary information and other sources as interviews and focal groups, field visits.</p> <p>1) ProDoc Documentation, GEF Doc, FAO Doc on OPIM, PIRs, technical doc, indicators doc, systematization</p> <p>2) Interviews in FAO EC (administrative assistant) and GADPCH (administrative assistance, administrative manager, prefect), Project Coordinators (technical leader in charge of monitoring)</p> <p>3) Interviews with receivers (MAE)</p> <p>4) Direct products observations</p>	Relevance
1.7	Synergies – In which measure are project approach, strategies and results in line with and contributed to FAO priorities under SO2 and CPF Priority Areas 1 and 4?	<p>1.7.1 Level of coherence with FAO priorities and corporate objectives # of target of protected conservation; FAO SO2: Make agriculture, forestry and fisheries more productive and sustainable</p> <p><u>Assessment criteria:</u> the evaluation can verify that</p> <p>a) the ProDoc and operational plans integrated SO2 and CPF that is coherent with the CPF 4 of FAO EC;</p> <p>b) incorporation in the ProDoc of binding FAO strategies, in particular conservation and adaptation to climate change;</p> <p>c) assessment of project staff and the interested stakeholders the project aims at for achieving SO2</p> <p>d) project inclusion in pertinent monitoring sections of the CPF</p>	<p>Indicators SO1: Hunger eradication, food insecurity and malnutrition; SO2: Increase good and services for sustainable agriculture, forestry and fisheries (legislation, governance, statistics); SO3: Reduce rural poverty. SO5: Increase the resilience in facing threats and crisis (management of crisis, climate change); SO6: Gender equality</p> <p>CPF: 2.1 Increase the usage of irrigation water by small producers. 1 Increased areas with the purpose of preserving and protecting national territory.</p>	<p>Analysis and triangulation of secondary information and other sources and interviews and focus groups:</p> <p>1) of the ProDoc and FAO/FAO-EC strategic documents;</p> <p>2) operational and progress/annual plans;</p> <p>3) interviews to determine the assessment of staff/interested stakeholders on FAO implication in the project (monitoring leader FAO EC)</p>	Relevance / Effectiveness

			Application of FAO-EC Priority 4 – strengthening environmental public policy in order to give value to, preserve and manage biodiversity and natural resources with the purpose of assuring ecosystem services		
1.8	Synergies - Which project association and collaboration agreements with local organizations and other project (of the GEF or not) were implemented in Ecuador (with special attention to cooperation with the PIDD programme)?	<p>1.8.1 No. and type of association agreements decided on and that strengthen or not project relevance (in particular PIDD and other GEF projects)</p> <p>186.2 Coherence of the Associations with the project</p> <p><u>Assessment criteria:</u> the evaluation verified:</p> <p>a) the ProDoc and/or inception reports evidence on the agreements to be carried out with other projects and local associations to avoid duplications and overlapping of activities;</p> <p>b) assessment of the synergies established/not established to reach results by project staff and other involved organisms</p> <p>c) assessment of the synergies established by beneficiaries in the three DAGs</p>	Establishment of synergies to improve project effectiveness and efficiency	<p>Triangulation of secondary information and other sources;</p> <p>1) Analysis of the ProDoc to understand the level of interaction with PIDD project and other initiatives</p> <p>2) Other sources as RPFCH Management Plan Document</p> <p>3) Interviews with key actors (MAE, parish DAGs),</p> <p>4) Focal Groups (Co-management Committees)</p> <p>5) Interviews with technicians from the project</p> <p>6) Review of the association agreements signed and implemented</p>	Relevance
1.9	Risks – Was risk management integrated in project planning and implementation (including the effects of climate change)?	<p>198.1. Project external and internal risks identified and applied with mitigation measures in the planning of activities</p> <p><u>Assessment criteria:</u> the evaluation can verify if:</p> <p>a) the ProDoc identified external and internal risks both in the management of and for the future sustainability of the project</p> <p>b) if with the re-building of the ToC risks for its long-term management were identified, as the effect of climate change and if such risks were treated appropriately and measures were taken</p> <p>b) percentage of project staff who confirm risk management has been updated and fully integrated in operational plans and planning processes</p>	Risk management	<p>1) Analysis of the ProDoc and the quality of the risks identified in the ProDoc and if they include mitigation measures</p> <p>2) Verify internal monitoring systems and operational plans to see if risk management has been integrated in the project's main activities</p> <p>3) Analyse the re-created ToC and compare it with the risks identified by the project and validate with stakeholders the generation of conditions to avoid risks that could hinder the achievement of long-term impacts</p>	Relevance (Project preparation and design with risk management)
2. Effectiveness	How effective has the project been in achieving the expected objectives and outcomes?				
2.1	The Project counted on a TOC scheme that guided its route and included conditions to achieve the final objective and risks to be mitigated	<p>2.1.1 TOC presence/absence</p> <p>2.1.2 Possibility of recreating a TOC based on the information in the ProDoc</p>	Not as clear as the TOC, but its elements are mentioned: Global Environmental/Development Objective (could be intermediate, components result and intermediate results (project objectives)	<p>Analysis of the Logical Framework and cross-checking of this information with GEF methodology to Manage by Results (TOC)</p> <p>Validate the re-creation proposal with implementers and FAO EC</p>	
2.2	How effective was the Project in reaching tangible results or results aimed at obtaining Global Environmental Results in line with the mandate of the GEF and FAO funds (established in the project)? With which results has the Project contributed to the paramos and the ecosystems related to high mountains?	<p>2.2.1 GEF Evaluation Guideline requirements: achievement of GEF-FAO corporate objectives (global level, higher level indicators)</p> <p>2.2.1.1 GEF evaluation indicators:</p> <p>i) RPFCH Management</p> <p>ii) Increase of Protected Areas within RPFCH</p> <p>iii) Increase of Protected Areas outside RPFCH</p> <p>iv) Contribution to biodiversity conservation targets</p> <p>v) Contribution to Agrobiodiversity varieties</p> <p>vi) Increase awareness raising in conservation of paramo and biodiversity</p> <p>vii) Contribution to creation of institutional and legal conditions</p> <p>2.2.1.2 Biodiversity conservation</p> <p>i) Conservation of conservation target species (vicuñas and other local species)</p>	<p>Objectives established by the LF Project Indicators:</p> <p>i) 58 000 hectares (ha) of paramo threatened with better management for the implementation of environmental practices (agro-sustainable, compensation mechanisms for environmental services (CES), reforestation)</p> <p>ii) 20% coverage natural re-generation;</p> <p>iii) RPFCH management increased from 50% to 70% according to GEF Tracking Tool</p> <p>iv) 20% improvement of native pasture species; biomass /m2 increased;</p> <p>v) GADPCH capacity increased (two regulations approved)</p>	<p>Triangulation of secondary information and other sources; <u>Comparative analysis of the ProDoc, GEF and FAO Doc, Biodiversity strategy, ecology of the area and LF indicators</u> of secondary information, technical documents, <u>quantitative and qualitative results; evidence achievement of indicators</u></p> <p>Focal group interviews; field visits;</p> <p><u>Implementation of GEF Tracking tools</u></p> <p><u>Identification of biological diversity targets</u></p>	Effectiveness

		<p>i) Conservation of communities or paramo ecosystem (protected ecosystem areas in or outside the Protected Areas)</p> <p>2.2.1.3 Improvement of Protected Areas management</p> <p>2.2.2 Higher level FAO indicators:</p> <p>i) Agrobiodiversity conservation</p> <p>ii) Improvement of communities' food security</p> <p>iii) Poverty alleviation</p> <p>Assessment criteria: Determine whether there are indicators that match the achievement of global indicators and/or are on the path to reach them with sustainable intermediate results</p>	<p>vi) Three control sites for natural resources/information used to supervise, raise awareness and create capacities</p> <p>Other indicators:</p> <p>i) Coherence of LF objectives with GEF and FAO corporate objectives and the needs for conservations and sustainable management of the areas</p> <p>ii) RPFCH ha whose protection contributed to the project / Ha of protected paramos with ecological conditions that allow its long-term tenure</p> <p>iii) Assessment by implied local communities on the number of hectares being managed, replaced/devalued livestock</p> <p>iv) Protected water sources</p> <p>v) Reduction of hectares of range areas of badly managed conservation species</p>		
2.3	<p>How effective was the Project in reaching tangible results or aimed at obtaining Development Objectives (local Benefits) - corporate objectives in line with the mandate of FAO funds)?</p> <p>Development Objectives:</p> <p>With which results has the project contributed to re-establishing and using agrobiodiversity and food sovereignty in particular in the participatory planning of sustainable development of water basins (expanding and strengthening the existing good practices for the conservation and sustainable management of paramos)?</p>	<p>2.3.1 FAO Corporate Indicators:</p> <p>i) Increase food security</p> <p>ii) Poverty alleviation – increase life conditions</p> <p>Assessment criteria: The evaluation will determine if the local strategies (Development Objectives – Local Benefits) count on a logical sequence and if:</p> <p>i) proposed indicators match the text of the Objective</p> <p>ii) local indicators and strategies meet a vertical sequence with environmental objectives (2.3) and horizontal sequence</p> <p>iii) they are or are not aimed at reaching them with sustainable intermediate results</p> <p>The evaluation will analyse the results obtained at integral level of the Development Objectives / Local Benefits – FAO corporate indicators</p> <p># and type of dominant types of change</p> <p>Interviewees differentiate the changes the Project has contributed to</p>	<p>Development Objective Text:</p> <p>i) Agrobiodiversity Protection</p> <p>ii) Increase in incomes/ health to family</p> <p>iii) Implementation of the management methods of water basins</p> <p>LF Indicators:</p> <p>i) 30 communities adopted and benefit from conservation practices (camelids replacement)</p> <p>USD 250 000 / total annual income for local communities and RPFCH for fibre of vicuña</p>	<p>1) Comparative analysis of LF indicators with results found;</p> <p>2) Triangulation of secondary information and other sources:</p> <p>i) Secondary information (ProDoc, GEF and FAO Doc, PIRs, technical reports, Indicators evaluation, systematizations related to the management plans with the needs of local DS)</p> <p>ii) Interviews</p> <p>iii) Focal groups</p> <p>iv) Field visits</p> <p>v) Survey</p> <p>Participants report on the market situation before and after the project</p>	Effectiveness
2.4	<p>Capacity building -</p> <p>Did capacity building turn into, or is it possible that it will turn into, the inclusion of environmental sustainability and water management and better regulation issues in policies on the management of NR in the paramos?</p>	<p>Level of knowledge and abilities for the building of regulations</p> <p>Assessment criteria to analyse if:</p> <p>i) effective training processes were generated through Participatory Management Plans (Micro-basins / RPFCH co-management / regulations at provincial level / resolutions and parish level</p> <p>ii) Training is provided to GADPCH staff/other institutions/participants at provincial/parish level</p> <p>iii) Consultative processes or trainings/ consultations on national legal frameworks were provided</p>	<p>LF statement within Component 1:</p> <p>Management for Water Basins</p> <p>Component 3:</p> <p>GDPCH can issue policies and laws; can supervise and monitor the status of natural resources management according to the preservation of the area's biodiversity: analyse the needs of laws and monitoring system of NR</p> <p>Establishment of information networks</p>	<p>Analysis and triangulation of secondary information and other sources (interviews, focal groups, field visits)</p> <p>Identify if there are reports/regulations/resolutions</p> <p>Assessment of the training and analysis of surveys if the Project was conducted</p>	Effectiveness

2.5	Awareness - How is understating and awareness seen among decision makers on the values of paramo conservation, agrobiodiversity and sustainable management? What is the main motivation?	2.4.1 Level of understanding expressed by authorities and participants <u>Assessment criteria:</u> Response with regard to: a) project conservation nutritional objective (identification of understanding of its objective and motivation for the Project) b) ecological value of the paramo / value for adaptation to climate change / value for environmental Services c) cultural value d) economic value	There is no clear indicator in the LF: the evaluation assumes the objective is to increase understanding of the assessment of the paramo conservation – biodiversity conservation and agrobiodiversity, environmental services provided and why conservation is an important adaptive measure to climate change	Analysis and triangulation of secondary information and other sources (interviews, focus groups, field visits)	Effectiveness (Objectives and results), exchange of information and knowledge
2.6	Component 1 – With which results has the project contributed to the conservation and sustainable management of paramo and the re-establishment and use of agrobiodiversity and food sovereignty, un particular in the participatory planning of sustainable management of water basins?	2.6.1 Level of compliance of Component 1 <u>Assessment criteria:</u> # and type of dominant changes Interviews differentiate changes from those which the project contributed to Identification of achievement of identified products: a) creation of Co-management Committees b) co-management plans for micro-basins c) implementation of priority activities identified in the Management Plans d) # ha replaces vicuña livestock with camelids e) # ha protected outside RPFCH f) # agrobiodiversity varieties recovered and incorporated in the market Identification in terms of the results of these actions' achievement a) Inclusion of priority activities projects and agrobiodiversity products in the market Incomes for families / channels to improve quality of life	LF: i) three micro-basins management plans # Co-management Committees – # Management Plans ii) # 100% of pilot projects implemented iii) 30 communities and/or indigenous organizations trained in planning iv) 30% of risk systems implemented by PIDD Announced in Results Framework: Communities participants: 1) Adopt conservation practices (replacing camelids livestock with llamas and alpacas 2) Protection of water sources (banks and areas near headwaters below the paramos), land conservation and measured water 3) Conservation and use of local agrobiodiversity increasing food sovereignty and use of conservation agricultural practices	1) Comparative analysis of LF indicators with results found 2) Triangulation of different sources 3) Field visits 4) Surveys 5) Focus groups	Effectiveness
	Component 1 - National Benefits / CES How did the Project support the design and implementation of the compensation mechanisms for environmental services? Are these mechanisms efficient, sustainable in the long-term and accepted by all stakeholders?	2.6.2 Definition and implementation of a pilot Compensation Mechanism for Environmental Services <u>Assessment criteria:</u> The evaluation confirms that an assessment study of environmental services of project area was carried out, and within these, CES is logic and coherent with these assessments. It will also evaluate the effectiveness of CES to promote paramo conservation in an integrating way and to see if it responds to the paramo area required to maintain the integrity of the ecosystem and its sustainability Improve its economic situation based on participatory plans of basins and CES systems	i) CES proposed and implemented ii) Two pilot contracts prepared and implemented iii) # and types of environmental services recognized by stakeholders iv) Assessment of document on Environmental Services Identified of the existing environmental services v) Meets communities' knowledge vi) Positive message and description of the compensation mechanisms for environmental services	Analysis and Triangulation of secondary information and other sources (interviews, focus groups, field visits) 1) Secondary documentation (ProDoc, Biodiversity strategy, ecology of the area) 2) Verbal information 3) Direct observations	Effectiveness
2.7	Component 2 – What are RPFCH improvements? How have these improvements contributed to RPFCH management (measured with the GEF tracking tool)?	Level of achievement of expected products and results for the reserve: 1) Diagnosis of threatened flora and fauna, National Plan for Vicuña –management training – infrastructure to sell fibre 2) Infrastructure 3) Co-management Plans 4) Vicuña: management plan, business plan, infrastructures <u>Assessment criteria:</u> a) analyse documents elaborated to verify if they match the proposal, i.e. diagnose if it was coordinated with Coordination and Planning and included in its Information System.	Indicators in Results Framework i) 80% reduction of paramo invasion ii) USD 100 000 coming from fibre of vicuña iii) 85 species of pasture maintained and increased iv) Coverage maintained or increased (biomass and necromass measure) v) 70% increase in management for tracking tool Additional indicators in the Follow-up table by Objectives: 1) Management Plan for Vicuña, change of category of vicuña in CITES	Analysis and Triangulation of secondary information and other sources (interviews, focus groups, field visits) Secondary documentation (ProDoc, Biodiversity strategy, ecology of the area) 2) Verbal information of interviews and focus groups 3) Direct observation of training and infrastructure processes	Effectiveness (Objectives and results)

		b) verify if this information on the values of conservation of the reserve as found in the LF was taken. b) visit areas with infrastructure to see if they meet the hoped function Characteristics data realized and published; c) Analyse agreements signed with the communities, proposals of co-management plans and identification of provided training..	vi) Infrastructure (path, building and tools of visitors' centres, beginning of the walk of los hieleros, bar-cafeteria). vii) Diagnosis of the reserve supporting the Planning coordination, including flora and fauna in the Reserve, identify threatened species and forestry areas and proposal for Management Plan – Total RPFCH coverage for the Co-management Plans viii) Implementation of Plans Training to benefit from vicuña fibre		
2.8	Component 3 – Did the Project succeed in generating and implementing a communication strategy to train GADPCH staff in the writing of decrees and regulations for the protection of paramo, its species and Agrobiodiversity and for the sustainable management of NR?	Level of achievement of proposed results in the ProDoc, Results Framework and Monitoring Table by objectives <u>Assessment criteria:</u> a) analyse if there was a training programme b) analyse if consultative process of "Training through practice" were carried out for the creation of regulations c) analyse if the monitoring mechanisms of NR were defined and implemented with communities' participation d) analyse information on NR monitoring systems	20 Staff members trained Four regulations approved, communities take advantage of the implementation of such regulations Monitoring networks Offline monitoring system in the GIS of Planning Coordination	1) Analysis of communication documents and materials financed by the project; 2) Analysis of meeting minutes on regulations' elaboration processes 3) Interviews with staff in charge of project communication; interviews with interested stakeholders on the quality and quantity of communication 4) Analyse information on the established monitoring networks	Effectiveness (Objectives and results)
3. Efficiency	Have the intervention methods, institutional structure and financial, technical and operational resources and procedures available helped or hindered the achievement of the project outcomes and objectives?				
3.1	Delays – Did the project experience delays in implementation and what were the barriers that partly or entirely hindered the achievement of project objectives?	3.1.1 Level of achievement of specific objectives and results with regard to those expected. <u>Assessment criteria:</u> i) Comparison with the expected timing for project implementation – extension if applicable ii) Identification of the barriers that hampered the achievement of products/results activities iii) Causes and solutions due to the delays in project implementation iv) Implementation capacity of the Project's adaptive management	100% implementation of planned activities	Document review (AOPs, progress and annual reports, FAO and GEF reports; summary accounting tables); semi-structured interviews – Questionnaire – Direct observations	Efficiency (Implementation, resources, monitoring)
3.2	Risk management and monitoring of indicators – How did this support and promote the efficient implementation of the Project?	3.2.1 Level of achievement of indicators and risk considerations for implementation 3.2.2 Existence of risk management mechanisms (internal and external) during project management that contributed to project implementation without major delays of needs for additional resources <u>Assessment criteria:</u> a) analyse if the ProDoc included a subheading to face risks during implementation and if this Plan was implemented b) see if the risks have been analysed in the PIRs and if they supported the adjustments made on the planning based on the risk category (high, medium low); c) assessment of the monitoring mechanisms and tools generated and implemented by the project	Reduction of external risks	Analysis of the ProDoc/LF, AOPs, progress and annual reports; Interviews with implementers/communities and FAO to understand if a monitoring system was established for the level of risk monitoring	Efficiency and implementation of the monitoring and evaluation system (Implementation, risk management)

3.3	<p>Implementation and execution</p> <p>- OPIM Management Arrangements</p> <p>How did OPIM implementation and execution provisions favour or hinder the performance of project activities?</p>	<p>3.3.1 Technical and financial capacity of the implementer at the beginning/end of the project to plan, implement, monitor and evaluate project activities to reach desired results.</p> <p><u>Assessment criteria:</u></p> <p>a) identify the advantages of the management arrangements and their issues</p> <p>b) know the recommendations for improvement proposed by stakeholders, relate with other arrangements of alternative management if possible</p> <p>c) analyse the relation of the organizational structure with management strengths and weaknesses to reach achievement</p> <p>d) analyse quality of technical and administrative results for planning, operation and monitoring</p> <p>e) implementers assessment by farmers and government organizations</p>		<p>Interview with FAO-EC, GEF and project implementer</p> <p>Analysis of the internal monitoring reports and AOPs</p> <p>Analysis of the monitoring system established in FAO-EC and GADPCH. Interviews with farmers organizations to verify the level of participation in generating information, data, findings and lessons learned</p>	<p>Efficiency</p> <p>(Implementation, execution, resources)</p>
3.4	<p>Institutional Framework (OPIM) - Did the institutional/organizational structure of the Project established under the Modality contribute to the achievement of an efficient management based on results?</p>	<p>3.4.1 Management arrangements and efficiency (analysed and reported with reference to OPIM)</p> <p><u>Assessment criteria:</u></p> <p>1) identify management arrangements and points of interest (complementary information related to OPIM with regard to relation with GADPCH)</p> <p>2) identify problems, understand recommendations for improvement by stakeholders, relate to other management arrangements, if possible</p> <p>3) comparative implementation analysis realized by compared direct implementation to OPIM implementation</p> <p>3.4.2 Level of achievement of products and results in each component due to the structure (FAO, GADPCH, MAE farmers communities)</p> <p><u>Assessment criteria:</u></p> <p>a) level of satisfaction of products received by MAE – RPFCH</p> <p>b) perception of project managers with regard to the designed structure/level of satisfaction regarding integration by GADPCH, parish authorities, communities</p> <p>c) application of articulation protocols among stakeholders.</p> <p>d) clarity of the definition of roles and functions</p>	<p>Pro Doc</p> <p>Identify management arrangements and points of interaction</p> <p>Expect a fruitful implementation</p>	<p>Analysis of information providing evidence of interaction as meeting minutes, participation in events</p> <p>Interviews with staff from FAO Rome, FAO EC, GADPCH, MAE – RPFCH – Co-management Committees and Implementers</p>	<p>Efficiency and project management</p> <p>(Implementation, execution, resources, monitoring)</p>
3.5	<p>Established Associations – Partnerships and other initiatives--</p> <p>How did the agreements with associations and project collaboration with partners, local organizations and other projects (of the GEF and not) implemented in Ecuador improve the efficiency of project implementation?</p>	<p>3.4.2 Level of associativity-complementarity with other initiative, in particular the PIDD project and other initiatives within GADPCH and types of exchange</p> <p><u>Assessment criteria:</u></p> <p>1) identify the established associations (defined in the ProDoc and those actually established)</p> <p>2) type of interaction and complementarity</p> <p>3) number of additional beneficiaries covered to implement association agreements</p> <p>4) assessment by project staff and representatives of institutions</p>	<p>Pro Doc: identification of indicators</p> <p>Associations identified during the Design</p> <p>Special definition of association and complementarity with PIDD Project (World Bank)</p>	<p>Analysis of meetings reports, agreements/agreements established with other institutions (including financial commitments)</p> <p>Interviews with implementers and authorities of the other partners and beneficiary stakeholder</p>	<p>Efficiency and project management</p> <p>(Implementation, association, resources, monitoring)</p>

3.6	Monitoring and Evaluation Mechanisms	<p>Level of application and efficiency of the M&E mechanisms for management</p> <p><u>Assessment criteria:</u></p> <ul style="list-style-type: none"> i) Analysis and triangulation of information on systems established with the requirements for an efficient monitoring <ul style="list-style-type: none"> a) Monitoring and evaluation plan established in the ProDoc and comparison with the one implemented b) Monitoring mechanisms established at the level of FAO-EC and GADPCH ii) Analysis of the MTE – MR iii) Analysis of the capacity to implement adaptive management to the project iv) Analysis of IT information systems v) Monitoring management system at field level 	<p>Pro Doc.: Establishment of the Monitoring and Evaluation Plan with focus on the final products</p> <p>Establishment of monitoring with GADPCH Information Planning Coordination</p>	<p>Analysis of the presence/absence of the quality of: Strategic Plan, M&E Plan, Information System for monitoring/quarterly reports, PIRS</p> <p>Meeting minutes of the Steering Committee, frequency of meetings and discussed topics; substantial/strategic or simple follow-up</p> <p>Presence/absence and quality of the IT system</p> <p>Interviews and focus groups to verify M&E processes in the field Analysis of the documents elaborated to support M&E (document analysis of indicators, systematization, etc)</p>	Efficiency and project management
3.7	Co-financing – How did the planned co-financing in the project document become real (based on an analysis of the Table in Appendix 5)?	<p>Level of co-financing committed and paid</p> <p><u>Assessment criteria:</u></p> <ul style="list-style-type: none"> a) analysis of co-financing reports/comparison with evidence provided and financial reports <p>Apply the Table in Appendix 5 of the TOR</p>	<p>List of co-financers who committed themselves with co-financing</p> <p>Fulfilment of such co-financing in kind and in cash</p>	<p>Implementation of Appendix 5 with support from GADPCH</p>	Efficiency and materialization of co-financing (Implementation, resources)
4a Regulatory values (rights)	To what extent has the project, in its work with local communities, ensured that all the stakeholders participated in the decision-making process (including the implementation of activities) and the empowerment of farmers in progressing with their rights?				
4a.1	Prior consultation (FPIC) and decision-making – Were local communities appropriately informed, consulted and involved in the decision-making process during project design and implementation before the implementation of project initiatives?	<p>4a.1.1 Existence of strategies and/or methodologies for the active participation of communities in project planning, implementation, and monitoring and evaluation</p> <p><u>Assessment criteria:</u></p> <p>Analysis of communities/ prior consultation during the design Analysis of the ProDoc and interviews to involved stakeholders on the design processes</p> <ul style="list-style-type: none"> i) Analysis of consultation processes and structuring of interinstitutional architecture with communities, focusing on the equal incorporation of the different points of view gathered in the participating communities <p># and percentage of communities involved in the participatory planning processes and applying the FPIC achieved:</p> <p>1) FPIC pre-project:</p> <ul style="list-style-type: none"> a. Prior: they gave their permission for the project in line with the needs (identification of indigenous peoples, geographic documentation, demographic information with participatory mapping); b. ii) Free: the Project was assessed independently (participatory communication was used during the debates, etc.) c. iii) Informed: the Project was assessed through the transparent delivery of clear, punctual, sufficient and facilitated information in an appropriate way in Quichua and Spanish; <p>2) FPIC during the Project;</p>	<p>Ensure the approaches correspond to the local context, that they are participatory and integrated (including grassroots organizations) and they are maintained during project implementation</p>	<p>Implement FAO Manual on FPIC</p> <p>Prior consultation with the communities during design: Analysis of secondary information (ProDoc.) and triangulation with interviews and focus groups</p> <p>Prior consultation with communities during implementation: Analysis of secondary information (in particular of the elaboration processes of the co-management plans and elaborated co-management), existence of strategies to implement FPIC, AOPs, PIRs, Quarterly reports</p> <p>Analysis of stakeholders' information evidence of process</p>	Regulatory values (FAO/FPIC): FPIC, inclusiveness

		3) Final decision-making on project planning, implementation and monitoring.			
4a.2	Inclusiveness – How were land planning, provincial and national policies included and oriented to the acceptance by all interested stakeholders (including indigenous peoples, young people, women and men)?	<p>4a.2.1 Level of participation of the interested stakeholders in the planning, implementation, and monitoring and evaluation processes of the project's main activities (per components/entire project)</p> <p><u>Assessment criteria:</u></p> <p>i) analysis of the participants' selection reception processes of inputs/participation in projects powered by the project</p> <p>ii) analysis of possible conflicts among neighbours due to shortcomings in the implementation of an equal inclusion Perception of project managers/partners and beneficiaries (including FPIC implementation)</p> <p>iii) project managers awareness and technical capacity to promote participation</p> <p>d) methodological suitability of the dialogue areas and conflict resolutions</p>	Participatory and integrated approaches, participation of multiple interested stakeholders (including grassroots organizations) are maintained during project implementation	<p>Community participation during design: analysis of secondary information (ProDoc.) and triangulation with interviews and focus groups</p> <p>Community participation during implementation: analysis of secondary information (AOPs, PIRs, quarterly reports)</p> <p>Interviews to implementers and participants on selection processes for participants/stakeholders, as well as conflicts among neighbours (semi-structured interviews with mixed/female/young people focus groups)</p>	Regulatory values (inclusiveness)
4a.3	Communication – Was information accessible to all, through the distribution of material for all and transfer of knowledge training processes to communities?	<p>4a.3.1 Level of utility of communication of final beneficiaries</p> <p><u>Assessment criteria:</u></p> <p>a) analysis of the processes to establish communication, mainly with communities,</p> <p>b) analysis of the training processes for the Management Committees of the communities and of transfer of information channel towards the foundations</p> <p>c) analysis of implementation of the FAO policy on indigenous peoples, especially:</p> <ul style="list-style-type: none"> i. Exchange and analysis of information ii. Dialogue on policies and policy work iii. Field programme <p>d) assessment by interested stakeholders that the implemented communication mechanisms provided, culturally accepted, replicable information, etc.</p> <p>e) analysis of project managers' capacities and will to reach fluent communication</p>	Communication on project information accessible to all interested stakeholders in the field	<p>Analysis of communication material, interviews for project communication and interviews and focus groups with participants, interviews with trainers</p> <p>Analysis of secondary information to find communication evidence (ProDoc, AOPs, PIRs, quarterly reports, information material, training and communication reports/meetings minutes with communities)</p>	Regulatory values (Access to information)
4b Regulatory values (gender)	To what extent has the project addressed gender equality issues in its design and contributed to the empowerment of women, young people and other vulnerable groups throughout its completion?				
4b.1	Participation – What was the level of women participation and representation in the planning, training and implementation of project activities?	<p>4b.1.1 Level of women participation in project areas dedicated to planning, implementation, monitoring and evaluation of activities</p> <p><u>Assessment criteria:</u></p> <p>a) no. and percentage of women who participated in these areas based on project annual/final reports and MTE</p> <p>b) women beneficiaries' perception with regard to their participation during the Project (i.e. generating the conditions to promote their participation - distances to cover, meeting hours, childcare services, specific communication for women, etc.)</p>	Participatory and integrated approaches, the participation of multiple interested stakeholders (including grassroots organizations) was kept during project implementation	<p>Analysis of operational plans and progress/annual reports</p> <p>Interview with women's groups; evaluative workshops (men and women)</p>	Regulatory values (Gender equality)

4b.2	Leadership – How did the Project support women in taking on leadership roles and actively participating in decision-making at all levels?	4b.2.1 Increase in number of women in management positions and/or responsibility positions in their local organizations or other decision-making bodies <u>Assessment criteria:</u> a) no. of women who confirm they participate equally as men in decision-making in rural institutions and in the drafting of laws, policies and programme (FAO gender equality objective) b) Evaluate women and men with regard to improved women leadership	Not clear	Analysis of operational plans and progress/annual reports Interviews with women's groups; evaluative workshops (men and women)	Regulatory values (Gender equality and empowerment)
4b.3	Women, food and nutrition security – How did the Project improve both men and women's livelihoods?	4b.3.1 Level of increase in women livelihoods as a consequence of project implementation. <u>Assessment criteria:</u> a) perception of women and men with regard to the equal improvement of livelihoods (i.e. the cost of medicine for women/child and men malnutrition has gone down) b) perception of indigenous women and men to improve their food sovereignty (including their right to apply their food and productive system)	Improvement of food security in line with the development objective of encouraging the results of native varieties (agrobiodiversity) in communities that already have their seeds	Analysis of operational plans and progress/annual reports Interviews with mixed/women focus groups	Regulatory values (Gender equality, food security)
4b.4	Access – How did the Project address inequality in access to goods, services, information and markets among men and women?	4b.4 Level of access to goods, services, funds, information <u>Assessment criteria:</u> a) no. of women reported in the reports who benefitted from the Project's specific actions compared to men b) perception of women and men with regard to the equal improvement of livelihoods c) perception of women and men on equal access to goods and services in line with the FAO Objective on gender equality	Not clear (the evaluation assumes the goal is to reduce inequality in rural communities)	Analysis of the FAO Policy on Gender Equality Analysis of operational plans and progress/annual reports Semi-structured interviews with peasant women; mixed focus groups	Regulatory values (Gender equality, access)
4b.5	Incomes – How did the project contribute to women's economic empowerment?				
4b.6	Undesired results – Did the Project have any negative impacts for women as decision makers, workload, division of labour, etc.?	4b.6.1 Factors that hindered the incorporation of the gender perspective in project implementation <u>Assessment criteria:</u> a) risk management incorporated in the gender approach b) did progress reports identify weaknesses and implement corrective measures? c) women perception on the Project's answer to possible negative impacts.	Not clear	Identification and analysis of possible undesired effects through field interviews and direct observations	Regulatory values (Gender equality: undesired impact)
5. Sustainability	How sustainable and replicable are the outcomes achieved by the project at an environmental, social, financial and institutional level?				
5.1	Institutional sustainability Political ownership - How did the OPIM Modality favour the sustainability of results as for acceptance and adoption of institutional practices and political ownership by GADPCH and other partners for the conservation and sustainable management of paramos, conservation of species and agrobiodiversity?	5.1.1 Level in which project activities and results have been accepted by the counterparts Existence of institutional structure with trained staff and political decision for its institutional stability <u>Assessment criteria:</u> Analysis of the actual ownership level and future perspectives Analysis of the institutional and training conditions reached with the Project and its protection for the future, identifying possibilities or limits to the sustainability of the results achieved Analysis of whether the authorities offer a political strategy to keep having policies promoted by the present administration		Analysis and triangulation of training information obtained from: i) Secondary information (PIRs, specific reports) ii) Interviews and focus groups that explain aspects of institutional structure at GADPCH and parish level iii) Evidence of training processes within GADPCH and parish councils	Sustainability

5.2	<p>Institutional capacity – Are national and local institutions in the position to: a) commit the necessary resources to carry on the performance of relevance activities after Project closure? and b) Support them with an efficient communication strategy to facilitate the extension of agrobiodiversity? Do they have the required technical capacities?</p>	<p>5.2.a.1 Level of internalization of conservation and sustainable management of paramos and their species within GADPCH and parish councils</p> <p>Level of internalization of the project implementation unit within GADPCH</p> <p><u>Assessment criteria:</u> a) analysis of the relation of the institutional capacity with that required to carry on project actions (i.e. provision of Technical Assistance with promoters at field level and people trained within the institutions) b) analysis of how to institutionalize project staff within GADPCH c) analysis of how to maintain them institutionalized for the community monitoring system and CES d) are there are long-term land plans after project closure that integrate sustainable project policies, approaches and actions?</p>	N/A	<p>Triangulation of information obtained from secondary information, implementers interviews, authorities and focus groups</p> <p>Secondary documentation (ProDoc – AOPs, PIRs). Land-use plans</p>	
5.3	<p>Financial institutional sustainability and of the Communities Did the project create/promote the financial conditions for communities to keep receiving incomes as an incentive to carry on conservation and sustainable management actions for paramo? Is the GADPCH budget of parish council solid or are there risks for reduction in the future? Are the national and local institutions in the conditions to commit the necessary resources to carry on the performance of relevant activities after Project closure?</p>	<p>Level of GADPCH income (own and governmental incomes) to maintain their work programme and contributions to project results as CES Financial level of the parish councils that allow to maintain their work programmes and contributions to project results as CES Existence of programming that includes the continuation of initiatives/results started by the Project in its budget. Level of incomes in the Communities and Channels and type of marketing mechanisms that allow sustainability of its results of conservation and sustainable management of paramo</p> <p><u>Assessment criteria:</u> a) analysis of the national economic situation that allows to ensure its contributions and analysis of GADPCH and parish incomes. 2018 GADPCH budget b) availability of resources to meet the agreements/commitments underwritten by the involved institutions c) analysis of the communities marketing channels as to understand if they will have the possibilities to maintain the value chain and an income for the appropriate management of paramo</p>	N/A	<p>Triangulation of information; direct field observations; Secondary information analysis; Interviews – focus groups</p> <p>Interviews with GADPCH, parish councils, MAE - RPFCH</p>	Sustainability
5.4	<p>Community organization - Organization – Are there changes at farmer organizations level and at individual level to promote the sustainability of results after Project closure?</p>	<p>Level of community organization</p> <p><u>Assessment criteria:</u> a) analysis of the relation of the conditions of previous organizations or reached by project contribution and its future outreach, identifying possibilities or limits to the sustainability of the results achieved b) solidarity of the Co-management Committees</p> <p>Level of social appropriation of the concepts of sustainable management, biodiversity conservation and agrobiodiversity</p> <p><u>Assessment criteria:</u> a) analysis of the level of motivation and interiorization of the delivered concepts. Identify its motivations. Will they do it on their own or only because a project provides inputs? b) analysis of the guidelines that keep working in the established social structures: c) methodological guidelines to follow-up with the functioning of the Co-management Committees</p>	N/A	<p>Triangulation of information; direct field observations; Secondary information analysis; Interviews – focus groups</p> <p>1) Secondary information (ProDoc) 2) Verbal information 3) Direct observations</p>	Sustainability

		<p>d) internal regulation to manage vicuñas and division of its incomes</p> <p>e) guidelines and plans to be implemented within farmer organizations to continue/expand small farms in the next seasons</p>			
5.5	<p>Environmental sustainability.</p> <p>Capacities generated from the environment-</p> <p>Did farmers manage to give value to the agrobiodiversity seeds that they already have? And is there any chance they may preserve them?</p> <p>Does delivering methods obtained from the Project provide the appropriate conditions for their sustainability?</p>	<p>Level of community sustainability for the conservation and sustainable management of paramos and their species for their intrinsic values</p> <p>Level of stability of the ecosystems of the paramo that offer the taken environmental measures? Do the conservation areas provide an adequate area to continue their own evolving processes so that they remain entire?</p> <p><u>Assessment criteria:</u></p> <p>a) analysis of the internalization of concepts at the level of communities</p> <p>b) analysis of the ecological characteristics of the paramos and their requirement to keep being functional ecosystems and comparing these characteristics with the environmental conditions generated by the project.</p> <p>c) level of community awareness on the importance of agrobiodiversity and percentage of people who know/take care of them</p>	<p>ProDoc mentions peoples' awareness as a product.</p> <p>There are no indicators on the ecological requirements of the ecosystem</p> <p>ProDoc includes the elaboration of a diagnosis of threatened species, coverage of paramo, reduction of progress of the border for pasture, change from vicuña livestock to camelids, determination of community and individual conservation areas, CES</p>	<p>Analysis and triangulation of secondary information (ProDoc, AOPs, reports on the reserve as diagnosis, NR monitoring systems) with direct observations of the paramo, interviews to authorities (i.e. authorities from MEA and RPFCH, Socio Paramo, GADPCH, implementers); Interviews and focus groups to participants and communities</p>	Sustainability
5.6	<p>Risks to sustainability</p> <p>Are there any environmental, socio-political or economic risks that have to be mitigated in order not to compromise the sustainability of project results?</p>	<p>Level of risks identified (high, medium, low) for environmental, social, organizational, institutional and financial aspects</p> <p><u>Assessment criteria:</u></p> <p>a) analyse if these possible risks were identified (i.e. climate change, national economic situation that can affect finances at local level) and identified and implemented measures to mitigate these possible obstacles to sustainability</p> <p>b) mitigation risk strategies contemplated in the strategy of project closure</p>	ProDoc: does not include these indicators	<p>Analyse/triangulate secondary information (project closure plan), technical information on possible risks, (i.e. climate change, financial aspects, management guidelines for the Project); interviews and focus groups where risk aspects are analysed based on stakeholder's view on how to face them</p>	Risks to Sustainability
5.7	<p>Replication and catalytic effect – Did the Project have any catalytic effect on the country and in the province of Chimborazo?</p>	<p>Participants' motivation to replicate the initiatives implemented in the neighbour's small farms</p> <p>Authorities' motivation to replicate implemented processes in other localities</p> <p><u>Assessment criteria:</u></p> <p>a) analyse if there is evidence of having replicated project activities/processes in other areas</p> <p>b) analyse if there are replication options among neighbours starting from the observation of pilot projects</p> <p>c) analyse if there are replication possibilities in other areas starting from an internal planning of GADPCH, land plans and others</p> <p>Assessment by interviewed stakeholders</p> <p>Assessment by FAO/FED in Ecuador</p>	Not clear	<p>Analysis of secondary information (closure plan, costs of interventions), interviews with communities; field visits, interviews with authorities, implementers, FAO officials</p>	Sustainability, capacity development and replicability

5.8	<p>Spreading of acquired knowledge / Lessons learned after the Project - Are there strategies to spread the knowledge and practices introduced by the Project and lessons learned at GADPCH and Country level with the aim of encouraging dialogue on lessons learned and good practices to strengthen and replicate them?</p>	<p>Existence of a spreading systematization strategy of generated knowledge Level of ownership by interested stakeholders so they can count on the motivation to continue the spreading of knowledge generated by the Project and/or that have been improved by the Project</p> <p><u>Assessment criteria:</u> a) identify if there is systematization of experiences and/or if manuals or guidelines have been created with the aim of spreading knowledge, good practices and lessons learned coming from project implementation after project closure. b) assessment of project professionals, technicians and beneficiaries with regard to the guidelines and plans established to continue communication and spread progress and results after the Project</p>	Not clear after the first ProDoc review	Information analysis and triangulation of different sources, secondary information (systematization, guidelines, manuals, closure plan, management plans, PIRs); Interviews with implementers and participants, FAO officials and verification of the ability to spread information and/ or existing infrastructure to facilitate it	Sustainability (Communication)
6. Lessons learned	What lessons learned from the project, in terms of its design, implementation and sustainability can be used for future interventions similar to that of FAO in Ecuador, in particular of GEF and other donors in general?				
6.1	Considering the evaluation carried out within the Framework of the previous questions, what lessons learned can be taken to improve the design and implementation of similar FAO and/or GEF projects?	<p>Existence of Obstacles and difficulties that arose during project cycle and affected its implementation</p> <p><u>Assessment criteria:</u> a) analysis of the obstacles or difficulties that will have an impact on the sustainability and replicability of the achieved results b) analysis of the key needs and proprieties that still need to be addressed in the micro-basins of Chimborazo for the conservation of paramo, its biodiversity and its agrobiodiversity c) analysis of the obstacles and difficulties which caused delays or the failure to achieve effectiveness, efficiency, implementation of inclusion and gender policies d) assessment of methods, tools and project methods by interested stakeholders</p>	N/A	<p>Analysis of progress/annual/final reports; study analysis of project components</p> <p>Semi-structured interviews with the interested parties; interviews with FAO and GEF; internal discussion of the evaluation team on lessons found</p>	Individual, community and institutional lessons learned

Appendix 6. GEF rating

FAO – GEF rating scheme	Rating ¹²⁸	Brief comments ¹²⁹
Total results rating¹³⁰		
Total result rating¹³¹	MS	The Project is still relevant for GADPCH and local communities, it reached important achievements under its three components and OPIM was a viable management modality to implement GEF funds and receive co-financing. Moreover, grassroots participation and the Project's gender approach were satisfactory. However, the evaluation was only moderately satisfied with the achievement of its development and environmental objectives. In particular, a lack of appropriate integration of biodiversity conservation was noted, mainly agrobiodiversity and endemic species, in the main activities; this reduced adaptation opportunities to ensure the food and nutrition security of the communities involved. Likewise, project efficiency was not maximized due to delays, a weak monitoring system and lack of risk management during planning, with the aim of mitigating the impact of the obstacles to its implementation in time. Finally, the sustainability perspective of the activities under GADPCH responsibility and/or monitoring are favourable, but the same can't be said about the economic activities.
Relevance / Pertinence	S	Project design is coherent with GEF and FAO objectives and with national and provincial objectives (legal and institutional framework). Moreover, it responds to the needs of local communities and of GADPCH that facilitated the appropriation of the majority of the activities carried out. GADPCH participation in project design and in implementation with OPIM support allowed it to strengthen its dialogue and planning capacity, especially in the conservation of water resources in the paramos. However, the design had some weaknesses. In particular, it had many objectives and activities without a final objective, it promoted the conservation of agrobiodiversity without an appropriate political-legal framework until 2017 and it did not consider that local authorities have a limited capacity of resource absorption and coordination with a wide range of interested stakeholders.
Effectiveness (level of achievement of results)	MS	The Project reached important achievements and the specific objectives expected for the three components, with satisfactory quality, especially with regard to the management of five water micro-basins and RPFCH. However, the evaluation is only moderately satisfied with project effectiveness as it did not finalize some important aspects, as

¹²⁸ See indications for rating scale for the Final Document.

¹²⁹ Include links to the sections/paragraphs of relevant reports.

¹³⁰ If the evaluation team finds it necessary, the results of components can be classified separately. The total qualification of results remains mandatory.

¹³¹ Follow the indications and criteria for the determination of the qualification presented in Annex 2 of the GEF Guideline for final evaluations dated April 2017 (p. 16).

		highlighting the income increase of its productive resources, the weak impact on the objectives of biodiversity conservation, in particular agrobiodiversity and the endemic species, and it did not establish an integrating and ecosystem vision as expected in the ProDoc. Certainly, this situation, together with the lack of realization of an information system on the status of species of the ecosystem of the paramo has limited the adaptation opportunities of family farming to climate change and their long-term food and nutrition security.
Efficiency	MU	The OPIM modality proved it can implement projects financed by GEF within a national identity and receive and implement more co-financing funds than expected in the ProDoc. Moreover, it succeeded in implementing almost all the total project budget. Yet, a two-year project extension was necessary to reach this achievement. Moreover, being one of the first OPIM, women weaknesses affecting efficiency were identified. In particular, OPIM did not apply risk management in its planning and the monitoring system was not based on results to guide planning and communication. Moreover, OPIM did not identify a training plan that specified FAO roles and responsibilities, especially at project start, after the change in OPIM staff in 2013, or after the MTE at the end of 2015.
Project implementation rating		
Rating of project implementation and adaptive management (FAO)	MS	FAO had an important role in reviewing the TOR and project profiles elaborated by the implementers, just like in the review of products and PIRs. However, since the Project promoted a new management modality to use GEF funds (OPIM), it is clear that its design did not include an appropriate specification on the role and responsibilities of FAO, or of MAE with OPIM and GADPCH. Moreover, the evaluation believes the adaptive management quality was only moderately satisfactory as OPIM and FAO did not plan key meetings at the beginning of the Project to review the ProDoc (including the problems in its translation to Castilian Spanish), the LF and the monitoring system, after the change in the majority of the staff of the technical office in 2013 and right after the MTE at the end of 2015.
Project execution rating		
Execution rating (executing agency)	MS	
M&E rating		
Total M&E rating	MU	The evaluation found the M&E system to be moderately unsatisfactory as it focused on the monitoring of operations and targets in the M&E plan and was based on the collection of fragmented information. In particular, the hydrometeorological monitoring system on the quality of water was established, but without the monitoring of biological natural resources in the Information System of the Planning Coordination (as proposed in the ProDoc).
M&E design	MU	The ProDoc included the usual GEF M&E tools for these type of projects (e.g. types of reports to be submitted, external

		evaluations, audit, etc.). However, there were important weaknesses: i) inappropriate adaptive management that included the change in high-level objectives; ii) it did not apply SMART indicators with its respective base line and goals. Therefore, the system was not seen as a way to support the planning, learning and management of risks.
Implementation of the M&E plan	MU	The Project implemented the M&E plan with the aim of monitoring the progress of its operations, activities and products and elaborate the reports on its biannual and annual progress. As there was no focus on monitoring and reporting its results and tangible changes due to its actions, the evaluation believes the monitoring plan was moderately unsatisfactory to evaluate project changes, lessons learned and good practices and to move forward with the policy dialogue with interested stakeholders based on informed decisions.
Sustainability		
Global risk possibility for sustainability	MU	The high risks identified in the PIR were relevant at project closure in November 2017. In particular, the risks related to climate change and financial and institutional instability. To date, the integration of risk management in the planning of GADPCH has not been identified and, therefore, there is still the need to classify it and then manage it with appropriate short- medium- and long-term mitigation measures, based on the risk.
Financial resources	MU	GADPCH collects its own resources coming from local taxes and fees, and also receives allowances from the national government, which in some ways ensures the continuity of priority interventions. Moreover, local communities showed their commitment to continue co-financing some activities as the implementation of management plans. However, there has been a serious recession process since 2016 that represents a high risk with regard to the number of activities GADPCH and cantonal and parish authorities can carry on and that could discourage the above-mentioned co-financing.
Socio-political	ML	Socio-political sustainability is moderately likely since the Project achieved the creation of an important social structure starting from the Co-management Committees with the participation of communities and cohesion incentives of the approach to authorities for a possible influence in decision-making and its common concern for the reduction of water resources in the paramos The sustainability of the cohesion of the social organization for the creation of economic resources is uncertain as the processes still require more training in marketing and selling and in the realization of economic benefits.
Institutional	ML	The Project contributed with the institutional strengthening of GADPCH through its involvement in project design and in its implementation with OPIM support. Moreover, the Project has been instrumental in strengthening the capacities of local authorities through activities as new regulations, implementation of management plans in five micro-basins under the Management Committees and the financing of rural

		<p>infrastructure to benefit involved authorities. However, of the involved OPIM staff only the technical manager and two technicians have been included as GADPCH staff members. As for the strengthening of the MAE, the Project was instrumental in strengthening the responsible national authority for protected areas through the recruitment of the project for the elaboration of a new management plan for RPFCH together with the delivery of infrastructure and teams for the management of vicuña wool shearing. Interviews with the MAE confirm a commitment to keep implementing the RPFCH management plan with its own resources.</p>
Environmental	MU	<p>The sustainability of global objectives is affected by the same weaknesses of its achievements (weak awareness on the need for the conservation of biodiversity, especially agrobiodiversity and endemic species in the paramos of Chimborazo and declaration of areas it has to protect). However, the promotion of a compensation pilot mechanism for environmental services offers a new opportunity to promote conservation at least in the areas where the Socio-Paramo Programme pays such services (it has a tangible fund). Meanwhile, learning how to manage camelids and its fibre, as well as the sustainability of the infrastructure to protect the protected water sources provides possibilities coming from communities' interest in the protection of water and generation of incomes for the sale of vicuña wool, very pricey in the international market.</p>

Appendix 7. Financial data – co-financing

Funds for Project preparation - PDF/PPG grant (in USD)

Private	At approval	At the end of PDF/PPG
GEF PDF/PPG grant for project preparation		USD 100 000 GEF
Co-financing for project preparation		USD 200 000

GEF funds for the project

Private	At CEO approval (USD)	At project closure
GEF funds	3 870 000	3 870 000
Co-financing	6 441 000	8 082 000
Total	10 311 000	11 952 000

Project co-financing disaggregation

Name of co-funder	Type of co-funder ¹³²	Types of co-financing ¹³³	Co-financing at the beginning of the Project (thousands)			Co-financing at project closure (thousands)		
			In kind	In cash	Total	In kind	In cash	Total
GADPCH:	A. Provincial	Own funds			2 230	1 927	520	2 447
World Bank	Multilateral	Loan			3 200	3 060		3 060
Central Government - MAE	A. National	Own funds			661.6	1 270	830	2 100
EcoCiencia in species	NGO	Projects			100		150	150
COMICH	Second-level organization				150			0
Participants	Participants	Direct participation			100	45		280
Grand Total					6 441			8 082

¹³² Category examples include: local, provincial or national governments, semi-governmental autonomous institutions, education and research institutions, private sector, multilateral or bilateral organizations, nonprofit organizations and others.

¹³³ Grant, loan or direct participation of the beneficiaries (individuals) in the in cash capital, in cash or material contribution.

Appendix 8a. Main Project products validated by the evaluation

Component	Main products generated by the Project
Component 1 – Conservation of paramos and related ecosystems	<ul style="list-style-type: none"> • Five structured Co-management Committees, one per micro-basin; under this objective, the following products were achieved: five Management Plans (one per micro-basin) elaborated participatively. Within these, the activities/sub-projects to be implemented by PROMAREN were defined in a participatory way • Training and practice of 110 communities with 1 093 participants in the micro-basins (739 men and 354 women) • Design of the campaign: Raising awareness of the Paramo ecosystem services • Design and launch of the Compensation Mechanisms for Environmental Services • Establishment of 79 compensation agreements • Documents for the assessment of environmental services
Component 2- Activities – RPFCH	<ul style="list-style-type: none"> • Support the CITES Change of Category (MAE also carried out actions for the management of vicuña) • Chaccu vicuña shearing and guidelines for the management/purchase of material for chaccu • Financing for learning tours with community leaders on the management of vicuña in Peru (Pampa Galeras y Lucanas) • Creation of the Vicuña Working Group, with participants from MAGAP, MAE, ESPOCH, DAPG Tungurahua, DAPG Bolívar, GIZ and GADPCH • Building of the Bar-Cafeteria and management model for its performance • Equipment of the environmental interpretation centre of the RPFCH visitors centre • Rehabilitation of the walk "los Hieleros del Chimborazo" in RPFCH and building of the infrastructure for control and trade at the beginning of the walk • Design and implementation of the Co-management Project (seven communities of the RPFCH buffer zones) • Study on the quality of water and land in eight areas (troughs for vicuña) within RPFCH • Inclusion of 5 330.98 ha per SBP-CP
Component 3- Strengthening of GADPCH capacities in the management of natural resources with a focus on paramos	<ul style="list-style-type: none"> • Reviewed and approved regulation to promote the recovery, sustainable use, development and conservation of agrobiodiversity in the province of Chimborazo • Regulation for the accreditation of the processes related to prevention, control and monitoring of environmental pollution in the province of Chimborazo, which regulates the accreditation of all environmental processes • Draft regulation for the promotion of sustainable management and the conservation of the paramos and other fragile ecosystems in the province of Chimborazo, and the Compensation Mechanisms for Environmental Services • Support the Environmental Council Project • Water quality monitoring system designed and implemented in the five micro-basins • Buying of four water stations set-up in the micro-basins of the Blanco, Atapo-Pomachaca, Zula Rived and THC and coordination for the establishment of an hydrometeorological network in the province • Five training modules prepared with the ESPOCH University

Appendix 8b. Area reported as Project direct and indirect influence

2017 PIR Information

- **103 380 ha total area of DIRECT and INDIRECT influence** (60 percent of the total area of the five micro-basins)
- **36.871 ha total area reported as DIRECT influence**
- **66.958.33 ha total area reported as INDIRECT influence**

Table 1: Area reported as DIRECT influence

No. Direct hectares	Type of intervention	Contributors
1 415.76	Sub-projects in the five micro-basins	PROMAREN contribution
431	Forest restoration	PROMAREN contribution
1 382	For renewal	
4 227	Efficient risk management	Within the PIDD project intervention framework
17 416	Destined to conservation	Socio-Paramo scheme in the five micro-basins
12 000	Reported as management	ASARATI Association

Sources: PIR, progress as of 30 June 2017 and PROMAREN Indicators Documents (2018)

Appendix 8c. Area reported in the Consultancy Indicators Document

No. Hectares	Area of influence	Ha as additional indirect influence – Indicators Reports	
25 220	DIRECT	Included in the management plans of the five micro-basins	PROMAREN
1 165.06	DIRECT	Ten protection and production sub-project	PROMAREN
2 414.84		Reforestation	GADPCH Environmental Management Coordination

Source: PROMAREN Indicators Document (2017)

- Even though these coverage numbers could prove the Project achieved the goal of promoting sustainable processes of agricultural and forestry productive processes, the evaluation states that:
 - Some of the references refer to other project's interventions, for example PIDDD, and it is therefore necessary to distinguish the source of information. Still, it is not considered appropriate to include the area of the socio-paramo programme as this refers to another project objective.
 - The project's approach of promoting organic agriculture has a direct relation with the maintenance of the productive system and represents an important contribution; however, some beneficiaries did not apply the same practices in the lots destined to their livelihoods (without the use of chemicals) and in lots to be sold to the public (with the use of chemicals).
 - During the field visits, it was also noted that the area for the establishment of furrow as for the slopes is quite generalized (inclusive in some visited lots), and no reference to training was found.

Appendix 9. Conservation agreements in the micro-basin of the Blanco river under the Compensation Mechanism for Environmental Services

	Total Area(ha)	Water interest	Protected (ha)	Head of livestock	No. of agreements	Types of agreements
Landowner	3 000	917	400		1	Individual
Quimia Area, Zoila Martínez Community	3 033	2 860	200		28 partners	Community
Quimia Area			53		14 (2-3 of Verde Pamba) *	Individual
Candelaria Area			50		20 partners	Community
Candelaria Area			53		14	Individual
Nabuzo			100		4	Individual
Total			856		79**	

Source: Elaborated by the evaluation team with data from the Implementing Unit project

**Total: 79 reported agreements do not match the number with the reported detail

*** Reduction head report was not found for CES implementation

6. List of Annexes

The annex to the report is available to download as a separate document on the website of the FAO Evaluation Office: www.fao.org/evaluation/en

Annex 1. Terms of Reference of the Evaluation