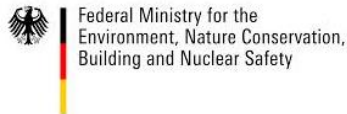


**Country Paper
Peru**

Final Report

**Terminal Evaluation of the UN Environment Project
Ecosystem Based Adaptation for Mountain Ecosystems**



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**Evaluation Office of UN Environment
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Preamble

This evaluation report has been produced as part of the Terminal Evaluation of the UN Environment project entitled Ecosystem Based Adaptation for Mountain Ecosystems, implemented in Nepal, Peru and Uganda. This report presents a country paper for the project component implemented in Peru. Findings of this report are reflected in the main evaluation report of the EbA Mountain project. This report has been prepared by an independent consultant evaluator, Clemencia Vela, and benefitted from contributions of Jay Oliver. This report is a product of the Evaluation Office of UN Environment. The findings and conclusions expressed herein, do not necessarily reflect the views of Member States of the UN Environment Senior Management, or stakeholders consulted in the preparation of this report. This report, or portions thereof, may not be reproduced without explicit written reference to the source.

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Acronyms/Abbreviations

BDC	Biological Diversity Convention (Convención sobre la Diversidad Biológica)
BMUB	Nature Conservation, Building and Nuclear Safety
CBA	Cost Benefit Analysis – In few locations it also stands for Community Based Assessment
CDC-UNALM	Centro de Datos para la Conservación Universidad Nacional Agraria La Molina
CONAM	National Environment Council (Consejo Nacional del Ambiente)
DGCCDRH	General Address on Climate Change, Desertification and Water Resources
EbA	Ecosystem Based Adaption
EIA	Escuela de Ingeniería de Antioquía (Engineering School of Antioquia)
EICES	Earth institute for Environmental Sustainability
FEP	Facultad de Economía y Planificación Universidad Nacional Agraria La Molina
IA	Internal Agreement
IISD	International Institute of Sustainable Development
IRI	International Research Institute for Climate and Society
IUCN	International Union for Conservation Nature
MEF	Ministry of Economy and Finance (Ministerio de Economía y Finanzas)
MINAM	Ministry of Environment (Ministerio del Ambiente)
NYCLR	Nor Yauyos Cochas Landscape Reserve (Reserva Paisajística Nor Yauyos Cochas)
ProNaMi	National Mitigation Programs (Programas Nacionales de Mitigación)
PUCP	Pontificia Universidad Católica del Perú
SENAMHI	National Meteorological and Hydrological Service
SERNANP	National Service of Natural Protected Areas (Servicio Nacional de Areas Naturales Protegidas)
SINANPE	National System of Protected Areas by the State
TMI	The Mountain Institute (Instituto de Montaña)
UNCCD	The United Nations Convention to Combat Desertification
UNEP	United Nations Environment Program
UNFCCC	United Nations Framework Convention on Climate Change (Convención Marco de las Naciones Unidas sobre Cambio Climático)
UNP	United Nations Development Program (Programa de Naciones Unidas para el Desarrollo)
WCMC	UNEP World Conservation Monitoring Centre

Peru Country Paper

1. Introduction

- 1) Ecosystem Based Adaptation (EbA) has been championed by United Nations Environment Programme (UN Environment / UNEP) as its flagship approach to climate change (CC) adaptation. In response to the 2010 UNFCCC Cancun Agreements towards enhancing action on adaptation, Germany's Federal Ministry for the Environment announced its support for the flagship umbrella programme, jointly implemented by UNEP, United Nations Development Program (UNDP) and the International Union for Conservation of Nature (IUCN).
- 2) EbA's approach is to support countries to develop local and national strategies to help rural vulnerable communities to adapt to climate change, through conserving, restoring and maintaining ecosystem services and biodiversity. It arises as an option to adaptation to include Biodiversity and Ecosystem Services within general strategies to adapt to adverse effects of Climate Change (CDB 2009).
- 3) Therefore, UNEP, UNDP and IUCN designed the (2011-2015) 11-P3 EbA Umbrella Programme "Support for Building Resilience of Vulnerable Ecosystems". Under the Umbrella Programme, the UNEP, UNDP and IUCN establish a partnership to design and implement the "Ecosystem Based Adaptation (EbA) for Mountain Ecosystems Project", (hereafter called the EbA Mountain Project) in three countries (Nepal, Peru and Uganda) over a five-year period, 2010-2016. During the UNEP Programme of Work (PoW) for periods 2010 - 2011 and 2012 – 2013, and as a stand-alone project during the UNEP PoW for the period 2014 - 2016.

1.1 Evaluation objectives and scope

- 4) This Country Paper for Peru was prepared as part of the Terminal Evaluation of the EbA Mountain Project. The purpose of this Country Paper is to assess the EbA Mountain Project's Peru component against the key evaluation principles as presented in the evaluation Terms of Reference, namely to assess project performance (in terms of relevance, effectiveness and efficiency) and determine outcomes and impacts (actual and potential) stemming from the project, including their sustainability. These findings are then feeding to the Terminal Evaluation of the EbA Mountain Project. The analysis covers implementation of the EbA for Mountain Ecosystems project in Peru from 2011-2016. Details of the evaluation objective and scope of the Terminal Evaluation of the EbA Mountain Project are available in the main evaluation report.
- 5) The Peru Country Paper is structured to mirror the main evaluation report and builds on the numerous project's staff and other stakeholder interviews (please see Annex 1), as well as other evidence gathered from the evaluation mission in Peru and field visit to pilot sites in the Nor Yauyos Cochas Landscape Reserve (NYCLR): Tanta, Tomas, Canchayllo and Miraflores. The Country Paper presents the evaluation findings, conclusions, lessons learned, and recommendations relative to the EbA Mountain Project implementation in Peru. Included in this country analysis is a closer examination of the performance of the EbA Mountain Project components, their underlying assumptions, impact drivers and other factors that affect the performance of the project in Peru.¹
- 6) The evaluation at country level was guided by a set of key questions, based on the project's intended General and Specific Objectives and Outcomes:
 - i. Has Peru incorporated EbA principles in mountain ecosystem into national planning and development policy processes (including actions focused on Mountain Ecosystems to enhance resilience) as a result of the project? Have the EbA measures led to improved delivery of ecosystem services?

¹ This is explained further in the reconstructed Theory of Change (TOC) section 2.7

- ii. Has Peru incorporated EbA cost-benefit analysis principles based on evidence from interventions to inform public policy, finance processes and economic sectors in mountain countries as a result of the project?
- iii. Has the project strengthened Peru's capacity for promoting EbA options and to reduce the vulnerability of communities to climate change impacts with particular emphasis on the Andes ecosystem?
- iv. To what degree was the project successful in supporting the integration of EbA principles into good practices and recommendations for informing adaptation policies, development and financial models and plans relevant for up-scaling?
- v. To what extent has the project set the bases for scaling up the EbA approach at national, regional and global level?
- vi. To what extent was the project able to influence international discussions on EbA?
- vii. How did UNEP, UNDP and IUCN as well as the national partner governments assess the partnership and cooperation of the three implementing entities? What lessons can be learned for future collaborative projects?

1.2 Country paper approach and methodology

- 7) Both quantitative and qualitative methods were used to determine project achievements against the expected outputs, outcomes and impacts. In accordance to the TOR for the evaluation, it had a participatory approach, a close communication between the consulting team and the project team was maintained throughout the evaluation increasing ownership of the evaluation findings.
- 8) Quantitative outputs were assessed against their quality and effectiveness, and their capacity to drive and sustain changes at outcome level. That was possible through triangulation of secondary information (project documents, videos, web pages, technical reports, etc.) with the field visits and in person interviews with stakeholders, particularly those who had participated or benefited from the project activities. Triangulation was also used in assessing other relevant components of the project, i.e. awareness and stakeholder participation, as well as learning and knowledge management. Whenever possible and appropriate, meetings involving different stakeholders were held and this enabled capturing a wide range of opinions and concerns related to the EbA Mountain Project Peru component during the country visit.
- 9) The main methods and tools that the team used in Peru included the following:
 - i. A desk review of key project documentation, reports produced by the project, and information from relevant websites, among others.
 - ii. Interviews: Face to face/telephone/Skype interviews with Project Management, Fund Management Officer, executing partners and stakeholders.
 - iii. Country visit: Visit to the project component in Peru and meeting with country UNDP and The Mountain Institute (IUCN field representative in Peru) officials, Director of Climate Change Department (CCD) within the Ministry of Environment, National Parks officials, Regional Governments related to the Reserve and community stakeholders (See Annex 2-).
- 10) In addition to reflecting this overarching methodology, the Country Paper also applied a Theory of Change (TOC) approach (explained further in Section 3). The TOC is used in this evaluation as a tool to delineate the causal logic of the EbA Mountain Project outputs, outcomes and impacts at the country level.
- 11) The evaluation team faced some data limitations in the process of developing the Peru Country Paper. The project was evaluated after period completion, when the PMU had closed, although most project staff was available for interviews and discussions and provided assistance in terms of organising evaluation visit to the project sites. In addition, financial information was not forthcoming when needed.

2. Project Background

2.1 Context

- 12) Peru is a South American country located between Ecuador and Chile. It has an area of 496,200 Km² and a population of 30,38 million people. Worldwide, it is considered the third most vulnerable country to climate change because of its shortage of water and the fast reduction of its mountain glaciers. As reported in the Peru second communication² presented to the CMNUCC. It is expected that by the year 2050 the effects of CC through all of the country will be that: i) an increase in temperature by 1.3°C during the summer as well as a reduction in humidity by as much as 6%. The consequences will be an increase of ‘freezing nights’ during the summer, and also an increase in ocean temperatures ranging from 3 to 4°C; ii) a reduction between 10%-19% in precipitation in the North, South, and Central parts of Peru; iii) Rise of sea levels, which will result in flooding, erosion, salt water penetration into underwater springs, and general damage caused by the sea; iv) Increase frequency in the occurrence of climactic phenomena such as ‘El Niño’ with greater consequences.
- 13) In Peru, the project was designed for an area in the high Andes at the “Nor Yauyos Cochas Landscape Reserve” – NYCLR (Reserva Paisajística Nor Yauyos Cochas). This area was selected because it holds one of the best examples of the social and environmental conditions of a mountain ecosystem and because it is one of the largest areas without a major intervention. The Nor Yauyos-Cochas Landscape Reserve was selected by the committee with unanimous preference; not only because it successfully fulfilled all the criteria and analysis, but also because it demonstrated the biggest potential to engage the three different institutional levels (National, regional and local) as well as other national initiatives actually being design by MINAM and SERNANP³.”
- 14) The area is important due to two factors: i) in the reserve, there are around 10,000 inhabitants, whose economic activities relate to natural resources management. However, the area has a low population density and has a trend to decrease due to current migration of the younger segment of the population to the surrounding cities (Lima, Huancayo, Cañete) leaving communities made up principally of older inhabitants; and ii) since the reserve comprises about 221,268 ha, it is home to large hydrologic bodies. In turn, it provides quality water to some 11 million people living in the area of Lima, and Junín Departments. As such, the project was seen as a benefit to not only those inhabitants within the Reserve but also to people living in the nearby cities.
- 15) The principle economic activities within the reserve are agriculture and raising livestock. However, other activities include mining, tourism, fish farming and transportation services.

2.2 Project Objectives and Components

2.2.1 Objectives

- 16) The primary goal of the EbA Mountain Project was “to strengthen the capacity of countries that are particularly vulnerable to climate change impacts, to build ecosystem resilience for promoting ecosystem based adaptation (EbA) options and to reduce the vulnerability of communities with particular emphasis on mountain ecosystems”.
- 17) The primary goal of the Peru project is to strengthen Peru’s ability to identify and implement ecosystem based adaptation (EbA) to reduce the local high mountain ecosystem communities’ vulnerability to climate change, through the pilot project in the Reserva Paisajística Nor Yauyos – Cochas.

²2010 Communication

³Sistematization document “El Futuro Ancestral: La adaptación basada en ecosistemas” UNDP, UNEP, IUCN, SERNANP, pag 41-42.

2.2.2 Project Components

- 18) The project included four key components: (1) Development of methodologies and tools for EbA decision making in mountain ecosystems; (2) Application of methodologies and tools at ecosystem level; (3) Implementation of EbA pilots at ecosystem level; and (4) Development of a business case for EbA at the local and national level and its integration in the planning process. In 2015 the Global program made an important review and included one additional component to the project to deal with learning and knowledge management, but the Peruvian project did not established a fifth component and instead it included this subject in the four components.
- 19) **Component 1: Development of EbA methodologies and tools for decision making.** This component was meant to provide the information necessary to develop the project and to establish the fundamental definitions and criteria needed for the EbA so that they are useful in the context of the project.
- 20) **Component 2: Application of methodologies and tools at the ecosystem level.** Results from the first component will be used to create options for EbA at the chosen area of study of Nor Yauyos – Cochabamba and to further promote the participation process to define application areas of the specified EbA options which would be the most appropriate and successful.
- 21) **Component 3: Implementation of EbA pilots at the ecosystem level.** This component was meant to initiate implementation of EbA options to be applied to the pilot area while building or strengthening the local population's ability to identify and apply EbA options. This will be essential not only for the project's internalization and appropriation of the local communities but it will also assure sustainability of the results beyond implemented activities.
- 22) **Component 4: Development of a business case for EbA at the national level and its integration in the planning process.** This component is intertwined with Component 3 and will cover several of the same activities focusing more on identifying and improving options to reduce poverty and activities produced by EbA options that have the potential for making an impact on poverty reduction. To engage EbA options towards poverty reduction it would be necessary to insure the duration and sustainability of EbA options that would be developed beyond the project's completion. This being the case, poverty reduction would have a major impact on the integrity and services and could, therefore, lead to diminishing functions of the ecosystems that lower the impact of climate change.
- 23) **Component 5: The Pro Doc does not include a Component 5 but following Component 4, the following text is included:** *"In addition, all components will count on strategies in communication, education and transversal replica to all components with the goal of insuring greater dissemination and replication of EbA at the regional and national levels. Activities of the communication strategy must introduce concepts and methodologies of the EbA into communication, information and education programs at a national level in Peru, and must be able to replicate at national level the efforts taken place in the pilot location".* The Component 5 subtitle was not written and the evaluator interpreted it was a non-desired omission; nevertheless, later on realized that it was purposely done. First reporting on Component 5 was not included in the PIRs or systematization documents; furthermore, the project executers reported that *"once, the implementation of the Project started, they decided that it did not make sense to have a component 5 for communications. This was transversal to all components. Therefore component 5 disappeared and all activities contemplated in this component were merged and became transversal to all components giving more sense and purpose to communications and educational outcomes and outputs".*

2.3 Target Areas and Groups

- 24) The EbA Mountain Project in Peru was implemented at national, local and at a community-level especially with those institutions that had political influence and a mandate related to the project's goal. The aim was to

strengthen national and local capacities to implement EbA practices in order to build the resilience of ecosystems and reduce the vulnerability of communities in the Andes and more specifically at the Nor Yauyos Cochas Landscape Reserve (NYCLR) and their livelihoods to climate change.

- 25) At the national level the project targeted the Ministry of Environment (MINAM) and its Directorate of Climate Change (CC), which provided support to the Regional Governments in Regional Climate Change Strategies update. As the project reported, the MINAM and the Directorate were involved in the selection of the NYCLR to implement the project and later on in the identification of the locations where the demonstration projects were implemented.
- 26) At the national, regional and local levels the project targeted the National Service of Protected Areas (SERNANP) as a main partner because they are responsible of management of the Nor Yauyos Cochas Landscape Reserve (NYCLR). The SERNANP provided political and technical support in the VIA Study, and the allowed the inclusion of EbA in the Reserve's management plan update.
- 27) At the regional level, the project established a partnership with the Directorates of Natural Resources of the regional government. The project took advantage of the momentum as they required updating their Climate Change Regional Strategies to comply with the national government's mandate. The Regional Governments of Junín and Lima were engaged in the Regional Technical Group for Climate Change of Junín. On one hand, the Regional Governments benefited from the capacity building and training provided by the project, while on the other hand, they facilitated the engagement of municipalities and regional authorities in the project.
- 28) For the CC Strategy, the project also established a proactive partnership with the USAID Peru project - PAT ACC⁴. The partnership was a win-win situation. The regional governments provided the political support and capacity to call different regional authorities and to provide cars, while the EbA Mountain project provided gas and materials for the workshops. The regional government benefited from developing the CC Strategies while the EbA Mountain project complied with the task to introduce the EbA concept in the Strategy and also benefited from being able to gather information during the workshops and to promote training on EbA and CC.
- 29) At the local level, the Nor Yauyos Cochas Landscape Reserve was selected for the implementation of the demonstration components as a response to the request of the MINAM and SERNANP. Within the Reserve four pilot sites were selected: Canchayllo, Miraflores, Tanta and Tomas. The project's approach was to encourage linkages with the whole community, and / or focus groups within the communities; and to work with the municipalities of some communities (Tanta and Tomas). The key beneficiaries of the project were in some case the whole communities and in others farmer groups. They were to benefit from the EbA knowledge and practices generated through the project, as well as from improved generation of ecosystem services and livelihood improvement as a result of the EbA Mountain Project and were to play a major role in pilot site identification, and in piloting and implementation of EbA options at ecosystem level.
- 30) It is worth to highlight that for many communities in NYCLR the municipal organization overlaps with the community organization. In general, these two organizations deal with the same groups of people. However, this is not the case in all situations, thus the municipality do not necessarily supports the communities' initiatives. For example, during the evaluation it was reported that in Canchayllo, the group that were in charge of the municipality did not have an interest in the project because the municipality authorities did not come from the group of farmers but from the group of beneficiaries involved in transportation services. Similarly, the community authorities sometimes do not necessarily support the initiatives of specific working groups. For example, it was reported that during years 2013-2014 the community authorities in Canchayllo strongly supported the project. In 2015, new authorities interested in mining development were in conflict

⁴ Technical Assistance Project for Adaptation to Climate Change, funded by USAID. It started on 2012.

with NYCLR due to restrictive regulations and, because of that, were unsupportive to NYCLR initiatives such as EbA Mountain project.

- 31) In the case of Tomas, the partnership with the community level was easier as the President of the community was a former forest ranger from the reserve as well as a consultant of the project during the training process when he worked in Tanta gathering information about vicuña management. When he left, and ran for president at Tomas he was highly interested in the replication of Tanta’s activities in Tomas. In addition, the mayor had also shown a high interest in working with pastures.

2.4 Milestones in project implementation

Table 1. Milestones in project implementation

Milestones	Completion dates
UNEP Project Approval Date	24 June 2010
Actual Start Date (Global)	1 January 2011
Actual start date (in Peru)	1 April 2012
Project Inception Workshop (in Peru)	22 November 2011
First PSC Meeting	10 September 2012
Planned MTE (a MTE was not done)	November 2014
Last PSC Meeting (before Terminal Evaluation)	7 November 2014
Planned Terminal Evaluation	October 2015
Intended Completion Date	1 December 2015
Actual Completion Date	30 March 2016*
Date of financial closure	30 March 2016
Terminal Evaluation completion	December 2016
Planned Duration**	52 months**
Project Actual Duration Peru (April 2011 to March 2016)	48 months

Source: Project Pro Doc and PIR 2015;

** Planned duration considers the last extension requested in 2015 to finish in June 2016, although the project finished in March 2016. Source: Project Coordinator

The official closing date was March 2016; nevertheless, after that date, the project organized two additional meetings to present results. One by IUCN, TMI, MINAM and SERNANP with the participation of UNDP, and the other organized by UNEP.

2.5 Implementation arrangements

- 32) In Peru, the lead Executing Partner of the project was the Ministry of Environment through the Directorate of Climate Change. The Implementing Agencies were UNDP, UNEP and IUCN, but UNDP was appointed as the project Coordinator because it was the only Agency having an office in Peru. Thus, UNDP signed a letter of Agreement with the Ministry of Environment to implement the project. A Project Management Unit (PMU) was put in place at UNDP to coordinate the project activities The PMU was headed by a full time National Project Coordinator.
- 33) As reported, the management arrangements were challenging due to the necessity to coordinate among the Agencies for implementation and reporting. Because the coordinators from UNEP and IUCN were not in Lima (the first was in Panama and the second in Ecuador), coordination among the three Agencies was facilitated by a permanent technical advisor, contracted by UNEP but working at the UNDP Office in Lima to guide UNEP activities and to ensure the compliance with UNEP’s tasks as responsible of component 1. Since the technical advisor was stationed in UNDP’s office, he worked in close interaction with the UNDP coordinator to provide

general support, which proved to be highly beneficial especially at the beginning of the project when the coordinator was alone. They both became the core of the Coordinator Unit of the project. This advisor was contracted only in Peru and showed to be quite strategic for the project. Moreover, IUCN partnered with the Mountain Institute (TMI).

- 34) To implement activities within the regions, the project hired a consultant to interact with each one of the governmental regions (Lima and Junín). For the implementation of the non-regret measures at field level IUCN-TMI hired an implementation coordinator, a communicator, and two facilitators. The UNDP also hired a consultant as field coordinator.

2.6 Project Financing in Peru

- 35) For the Peru project component, the implementing Agencies (UNEP, UNDP, IUCN) were individually committed to implement specific activities, thus, each institution received the money for the activities for which they were responsible. Funds were transferred from the donor, BMUB to the UNEP Nairobi based on a signed agreement. The UNEP Nairobi transferred the funds to the headquarters of IUCN and UNDP. For IUCN, it was delivered to its headquarters in Switzerland. In turn, the IUCN headquarters transferred the funds to the regional office in Ecuador which was in charge of the project in Peru. For UNDP, the money was transferred to UNDP headquarters in New York and from them transferred to Peru. In turn, UNEP Nairobi transferred money to its regional office in Panama which was responsible for the project.
- 36) The project in Peru⁵ had a planned budget of US\$ 3,580,743.88, to be divided among the parties (UNEP US\$ 819,260.00, UNDP US\$ 1,731,733.00 and IUCN US\$ 1,731,733.00) (see Table 2 below).

Table 2 Project financing per Agency

Institution	Expected (\$)	Received (\$)
UNEP	819,260.00	819,260.00
UNDP	1,731,733.00	1,731,733.00
IUCN	1,029,750.88	1,029,750.88

Source: Financial information from Implementing Agencies

- 37) Co-financing was not planned in the project design; nevertheless, there were in-kind contribution from the regional governments and communities. Their contribution was not calculated and reported as a comprehensive separately information. Nevertheless, the executer's reports that the community's contribution to the budget for green-grey infrastructure component in Canchayllo was calculated in 59% and 67%, and in Miraflores 17%⁶. In addition, some information on co-finance is mentioned and calculated as part of the Cost-Benefit Analysis⁷ (s/.35 per 80 hours and other expenses were not differentiated from the project's inputs).

2.7 Reconstructed Theory of Change for the Project

- 38) Progress made towards achievement of EbA Mountain Project objectives and impacts in Peru was examined using the Theory of Change (TOC) approach and Review of Outcomes to Impacts (ROtI) analysis. At project design, the TOC was not part of the project. However, the revised Project Document (Project Document of the

⁵ Figures refer to budget for implementation in Peru only.

⁶ IM, IUCN 2016.- Informe final de implementación de la medida robusta de adaptación basada en ecosistemas en la comunidad de Miraflores (Reserva Paisajística Nor Yauyos Cochas). Lima: IM y IUCN.

IM, IUCN 2016.- Informe final de implementación de la medida robusta de adaptación basada en ecosistemas en la comunidad de Canchayllo (Reserva Paisajística Nor Yauyos Cochas). Lima: IM y IUCN pages 18 and 19.

⁷ Alvarado L. (2015) Informe Final ACB Convencional y ACB Participativo en la comunidad de Canchayllo & Alvarado L. (2015) Informe Final ACB Convencional y ACB Participativo en la comunidad de Miraflores.

second phase) provides a TOC, but it does not cover the entire project duration. Therefore, for this evaluation, the TOC was reconstructed (see Figure 1) with a certain degree of interpretation by the evaluators. The reconstructed TOC (Figure 1) depicts the causal pathways from outputs to outcomes over intermediate states towards impact.

- 39) **Stage 1:** Referring to the “objectives” statement as defined in the Project Document, the goal of the EbA Mountain Project was “to strengthen the capacity of countries that are particularly vulnerable to climate change impacts to build ecosystem resilience for promoting EbA options and to reduce the vulnerability of communities with particular emphasis on mountain ecosystems”. To that end, we consider the main Project Outcome⁸ as: “countries vulnerable to climate change impact have strengthened capacity to build ecosystem resilience through the promotion of EbA focused on mountain ecosystems”.
- 40) Project implementation in Peru was geared towards building and facilitating the capacity of national, regional and local government institutions and communities to engage in adaptive ecosystem management. Achievement of the project outcome would contribute to increased mountain ecosystem resilience and reduced vulnerability of the mountain region communities and their livelihoods to the negative impacts of climate change. This is in line with the long-term goal of the EbA “umbrella project” (11-P3) from which this project is derived. Thus, the evaluation considers the ultimate impact of the project in Peru as “increased ecosystem resilience and reduced vulnerability of communities in the high Andes (Nor Yauyos Cochass Landscape Reserve) ecosystems to climate change”.
- 41) **Stage 2:** The broader outcome defined in the logical framework of the EbA Mountain Project is clear and can be verified by keeping track of the: (i) EbA cost-benefit plans in place at country level and are being used to influence public policy and finance processes (ii) Number of national level consultations on the development of EbA cost-benefit plans, (iii) inter-sectoral meetings held giving recommendations on inclusion of EbA into development planning processes and overall adaptation strategy, and (iv) integration of EbA, including cost-benefit analysis principles, into National Adaptation and other adaptation strategic documents.
- 42) The EbA Mountain Project logical framework (and now TOC) analysis is based on the premise that: strengthened capacity in EbA approaches and principles at country level (Peru) will result in increased mountain ecosystem resilience and reduced vulnerability of communities in the Nor Yauyos Cochass Landscape Reserve to climate change impacts.
- 43) The first output (Output 1.1 in Figure 1) refers to the assistance given by the project to develop EbA concept adapted to the country context, methodology, tools, and options indicators for monitoring and availing them to decision makers in project countries. The output was to be achieved through the production of a handbook of EbA measures for mountain ecosystems providing a menu of options; mainstreaming resilience into VIA methodologies; outlining data needs, scenarios and steps for mapping; and, identifying indicators for in-country monitoring (monitoring protocol).
- 44) The second output (Output 2.1 in Figure 1) refers to the support given by the project for the application of EbA strategy and action plans at ecosystem level. This output was to be achieved by conducting vulnerability and impact assessments at country level; economic assessment of EbA options for each country (Peru); spatial mapping of EbA options for the selected ecosystem; preparation of EbA proofed land use plans; and implementation of action plans.
- 45) The third set of outputs (Outputs 3.1 and 3.2 in Figure 1) refers to the support given by the project to pilot EbA at ecosystem level. Under this set of outputs, the project set to alleviate technical and institutional capacity deficiencies for incorporating EbA in national planning and policy processes, and implementing/piloting EbA strategies and action plans being developed in countries. This would be achieved by supporting local communities, CBOs, and other partners at the project site to implement EbA.
- 46) The fourth output (Output 4.1 in Figure 1) is the support given by the Project for developing Business Case for EbA at the national level. The focus was to build the capacity of target countries to utilise EbA cost-benefit

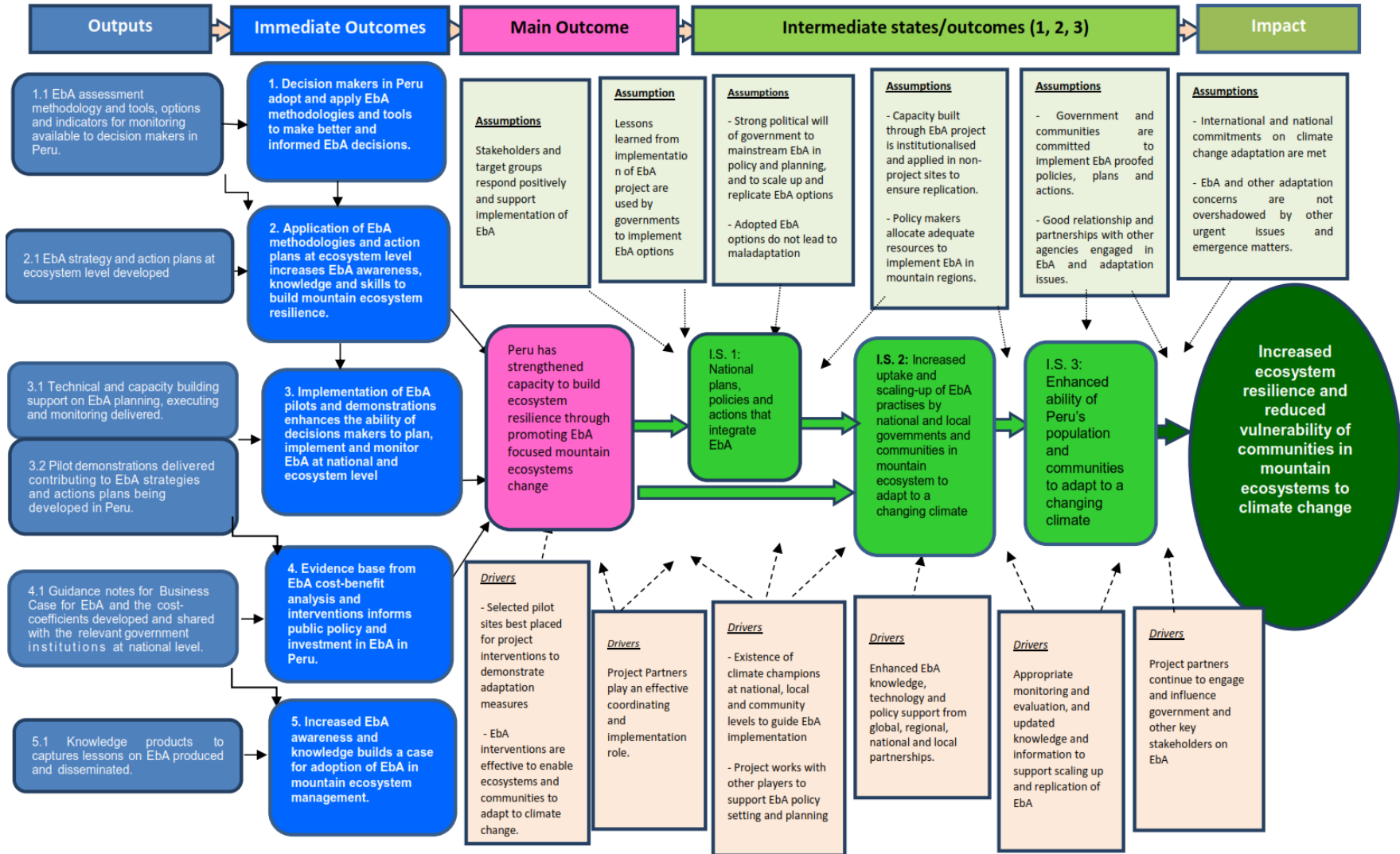
⁸ Outcomes: the short to medium term behavioral or systemic effects that the project makes a contribution towards, and that are designed to help achieve the project’s impacts (“the ROTI Handbook”, GEF, 2009).

analysis principles to inform public policy, planning, finance process and investment in economic sectors. This would be catalytic to incorporation of not only EbA but climate change adaptation in their national development processes. Under this output focus was on developing guidance notes and cost-coefficients and putting in place mechanisms for sharing them with relevant governments at national level.

- 47) The fifth output (Output 5.1 in Figure 1) in the TOC refers to the assistance given by the project to capture and disseminate knowledge products and lessons learned. Peru Country Project Document did not have a fifth output despite Component 5 was added when UNEP revised the project in 2015. However, the Pro Doc makes a reference to cross cutting the assistance given by the project to capture and disseminate knowledge products and lessons learned which are reported under this output. The project put in place mechanisms for knowledge management and document learning from the project ensuring that the project's knowledge products were shared nationally and internationally through various platforms such as electronic media, published papers, joint training workshops and conferences. This output was achieved through organization workshops and visits to facilitate exchange, supporting review of policy, strategy, plans, institutional setup; developing training modules and conducting trainings; providing advisory support to actors on adaption integration and convene targeted science-policy dialogues.
- 48) The project's direct/immediate Outcomes are interlinked and synergetic. For example, direct outcome 1 is a prerequisite to achievement of immediate outcome 2: EbA methodologies and tools developed (under direct outcome 1) would be applied at ecosystem level (under direct outcome 2). Still direct/immediate outcome 3 builds on direct outcomes 1 and 2. Implementation of EbA pilots and demonstrations at ecosystem level would build on the EbA methodologies and tools developed and applied under direct outcomes 1 and 2. The results from EbA pilots and demonstrations would contribute to the development of a business case for EbA and evidence base from EbA cost-benefit analysis would then inform public policy and investment in EbA, thus outcomes 3 and 4 are also linked. Finally, outcomes 1-4 are interlinked with communication, training and lessons learnt process (which were developed within the four components rather than a separated outcome 5) because there were communication, training, and dissemination activities in all the four outcomes, and towards the end, documentation of lessons learned and knowledge products and disseminating them to the intended target groups/users and the wider public builds awareness of EbA and builds a case for its adoption in mountain ecosystem management. All these would strengthen the capacity of Peru to apply EbA options to build ecosystem resilience and reduce the vulnerability of mountain communities to climate change, despite the fact that some documents are dispersed and /or are focus on separated outcomes.
- 49) Emerging from the Project Document, the **key-drivers** for the delivery of the several goods and services (Outputs) are:
 - i. Project Partners (UNEP, UNDP, IUCN - TMI) play an effective coordination and implementation role.
 - ii. Selected pilot sites are best placed for project interventions to demonstrate EbA measures.
 - iii. EbA concept is appropriately developed and understood (not presented in the project document but deemed critical by the evaluators)
- 50) Derived from the four components each with Outputs, four direct/immediate Outcomes would be achieved; provided that the MINAM – SERNANP – MEF and Regional Governments will actively assume a leading role and that the main national and local stakeholders will assume their specific responsibilities in the process (institutional uptake).
- 51) However, the achievement of the Four Direct/Immediate Outcomes identified by the EbA Mountain Project does not automatically imply that the main Project Outcome (countries vulnerable to climate change impact have strengthened capacity to build ecosystem resilience through the promotion of EbA focused on mountain ecosystems) is achieved. An effective coordination has to be in place in order to assemble and harmonically implement all the functions and instruments included in the Project Document and its Logical Framework. UNEP, UNDP and IUCN have to fully play their coordination, implementation and promotion role. The national implementation/coordinating agency in MINAM - SERNANP has to play a coordination role, while the institutional uptake by the main stakeholders has to be maintained and strengthened. The project would be fully functional and achieve outputs and outcomes under the assumptions that:

- i. EbA interventions at ecosystem level are effective to enable ecosystems and communities to adapt to the impacts of climate change.
 - ii. Stakeholders and target groups respond positively, are committed to implement EbA interventions and provide the necessary support.
- 52) **Stage 3:** The assessment of the TOC led to the identification of the impact pathways and specification of the intermediate states as summarized below:
- 53) The impact that this project intended to achieve is contributing to “increased ecosystem resilience and reduced vulnerability of communities in mountain ecosystems to climate change”. The pathway from the Project Outcome (countries vulnerable to climate change impact have strengthened capacity to build ecosystem resilience through the promotion of EbA focused on mountain ecosystems) to the intended Impact is not a straight forward process: Intermediate states - the transitional conditions between the project’s immediate outcomes and the intended impact - are necessary conditions for the achievement of the intended impact. We have identified the Intermediate States that have to be fulfilled (as shown in Figure 3), which presents our understanding of the causal logic and of the pathway from Outcome to Impact.
- 54) We identified three main Intermediate States (I.S.) that would lead to the achievement of the intended impacts. Assuming that the Outcome is achieved and maintained, under the **assumptions** that: Lessons learned from the EbA project are used by governments to implement EbA; and, Strong political will of government to mainstream EbA in policy and planning, the process will lead to “National development plans and climate change policies and actions that integrate EbA” (**I.S. 1**). The **key impact drivers** (external factors) expected to contribute to realisation of this I.S. 1 are: Partners play their roles; existence of EbA champions at national, local and community levels; and, project works with other players to support EbA policy setting and planning.
- 55) Our understanding is that the integration of EbA in national development plans and climate change policies, will lead to: "Increased uptake and scaling-up of EbA practises by governments and communities in mountain ecosystem to adapt to a changing climate" (**I.S. 2**), on **assumption** that: Adopted EbA and other adaptation actions do not lead to maladaptation; EbA capacity built through the project is institutionalised and applied in non-project sites to ensure replication; There is strong political will at national level to scale-up and replicate EbA tools and methodologies; Key stakeholders, target groups and communities in the mountain areas are supportive, and adopt EbA interventions, and; policy makers allocate adequate resources to implement EbA in mountain ecosystems. The main **impact drivers** at this stage are: effective institutions and platforms to guide implementation of EbA; EbA knowledge, technology and policy support from global, regional, national and local partnerships.
- 56) Increased uptake and scaling up of EbA by government and communities in mountain ecosystem to adapt to a changing climate will lead to: “Enhanced ability of the population and communities in mountain regions and countries to adapt to a changing climate” (**I.S. 3**). The **drivers** at this level are: existence of EbA champions at local and national level to guide EbA implementation; and, enhanced EbA knowledge, technology and policy support from global, regional, national and local partnerships. The **assumptions** are that: governments and communities are committed to implement EbA proofed plans, policies and actions; adopted EbA and other adaptation actions do not lead to maladaptation, and that have developed the capacities to adapt; and, good relationship and partnerships with other agencies dealing in EbA and climate change adaptation issues.
- 57) Finally, under the **assumptions** that: International and national commitments on climate change adaptation are met. EbA and other adaptation concerns are not overshadowed by other urgent issues and emergency matters in countries; the Project Impact “Increased ecosystem resilience and reduced vulnerability of communities in mountain ecosystems to climate change” can be achieved. This will be **driven** by: project partners continue to engage and influence government and other key stakeholders on EbA; and, appropriate monitoring and evaluation and updated knowledge and information to support replication and up-scaling of EbA.

Figure 1: Theory of Change – Outputs to Impact Analysis



3. Evaluation Findings

3.1 Strategic Relevance

3.1.3 Relevance to national development and environmental needs and priorities

- 58) The project was relevant to the UNDAF Peru (2012-2016) because it was coherent with its Result 11: “the state, with the participation of civil society, the private sector, scientific and academic institutions will design, implement and / or strengthen policies, programs and plans, with a focus on environmental sustainability and a sustainable management approach of natural resources and conservation of biodiversity.”
- 59) It was also coherent with Result 12: “strengthened capacities at all levels of the government, civil society, private sector, scientific and academic institutions for the integration of processes relating to management of risk disasters and adaption to climate change in policies, programs, and plans related to development to reduce the vulnerability and increase the flexibility of the population.”
- 60) The project was relevant (aligned) to the Government of Peru’s environmental, sustainable development and climate change goals and, even when some authorities perceived that the project idea came from the UNDP, the project was considered highly relevant to the Government of Peru and was adopted by key institutions at different levels (national, regional and local). The main institutional stakeholders of the Project were: the MINAM, the SERNANP, and the regional governments of Junín and Lima, and all of them formed part of the project in a strong fashion, however, it was reported that the involvement of the MINAM during the design and implementation was not as strong as they would have wished.
- 61) The project was relevant during the design phase. The Pro Doc reports that there was a consultation processes at national and regional levels during the design of the project. This was confirmed during the interviews. The project was highly relevant also during its implementation because it was coherent and responded to the institution’s necessities and mandate; for instance, the MINAM and Regional Governments required updating the Regional Climate Change Strategies and the MINAM and the SERNANP required updating the Management Plan of the Nor Yauyos Cochas Landscape Reserve (RPNYC). Furthermore, the Reserve was selected as the project demonstration site by a request of the Ministry of Environment (MINAM)⁹ and the selection was unanimously agreed by all partners (UNDP, IUCN, UNEP and SERNANP).
- 62) At the local level, the project was coherent with the needs of the communities. The communities of Tanta, Tomas, Canchayllo, and Miraflores were chosen to work with. They were not involved in this selection process but were thankful to have been selected to form part of the program. The reason behind this was that they already started feeling the effects of climate change before the start of the project. Communities expressed the project responded to their necessities to adapt to the effects of CC they are experiencing. Some effects they were noticing were:
- i. Increase in external temperatures with the decrease of water availability during certain periods of the year as well as a loss of vegetation due to soil degradation and erosion.
 - ii. Veranillo (summer-like periods), which caused damage to the ecosystem through a reduced absorption in relation to the constant burning of the land; this leads to the reduction of grasslands, wetland compaction, and an increased mortality of animals.
 - iii. Intense rainfall; erosion in areas of growing puna if there was low vegetation.
 - iv. Hailstorms; cause damage to the vegetation, which led to a decrease in availability.

⁹ Sistematization Document of the whole project: *El Futuro Ancestral: La Adaptación Basada en Ecosistemas*. March 2016

3.1.2 Gender Balance

- 63) During the evaluation field visits to the communities, it was possible to confirm the participation of women in workshop training, and technical working groups. It was reported that many of them, including elderly women have been active participants, and during the evaluation many expressed their opinions openly (i.e. Canchayllo and Tanta). However, it was also mentioned that in certain areas a degree of women segregation persists (e.g. Tanta). Regarding percentage of participation by gender, it was reported that in 65 training workshops 2117 people attended (57.16 % were women and 42.84 % men), and in 21 working groups there were 389 attendance (61.44% were women and 38.56% men).

3.1.3 Human rights based approach (HRBA)

- 64) Human rights were not the primary focus of the project intervention; nevertheless, it included human rights principles i.e. of inclusion, participation, fairness in design and implementation. For instance, project beneficiaries participated in the selection of sites and design of measures, which were considered beneficial to them. There was no evidence of impositions. This evaluation did not find cases of human rights violations. On the contrary, building capacities for the communities to better protect their natural resources and livelihoods is considered a beneficial support to communities and promotes inclusive development.
- 65) The project addressed poor communities and provided support to ensure their right for food security and water supply and increase of income.
- 66) Regarding the possibility to apply the principle of inclusion, the project encountered different situations. It was feasible to include the whole population of two communities (Miraflores and Tomas) where most people were farmers; nevertheless it was not so in Canchayllo where there are different groups as some are farmers, others miners, or work in tourism or transport, therefore, those sectors of the community did not have interest to participate and as such, these groups did not have the ambition to become beneficiaries of the project, but did participate in cultural events such as a theatre presentation. The situation in Tanta was different and even when all of them are farmers dependent of the ecosystems, which would have facilitated the entrance of the project, it was a challenging setting to work in. Nevertheless, being Tanta the most vulnerable community, UNDP included it in its component of the project. The community has had internal divisions since a hydro electrical company was established in the community land and these have also reflected at the decision making level. During the evaluation visit to the community, people reported that the project was promoted at the Community General Assembly (which is the official channel to start any project within a community) but that only one group expressed interest to participate in the project. However, on the other hand, some other people indicated they were not invited to participate in project activities. The lack of participation by some groups might have, however, been influenced by the internal divisions at the community level, but once the benefits of the project were visible they would have wanted to get included towards the end when it was no longer feasible.

The overall rating for project relevance is “Highly Satisfactory”

3.2 Achievement of outputs

- 67) All the project components and their relative outputs were implemented in a manner in which their achievements are cross-cutting and overlapping. The achievement of individual outputs is discussed below.

3.2.1 Component 1: Development of methodologies and tools for EbA decision making in mountain ecosystems

- 68) **Under Component 1** three main outputs were produced: i) the definition of the EbA and non-regret measure concept and methodology, which includes the definition of the criteria to be used for the VIA Study. ii) a monitoring document that includes 27 impact indicators; and iii) a tool kit which is a document that compiles the methodologies developed or implemented during the project.
- 69) It was reported¹⁰ that the EbA concept was developed in a participatory manner, and the process included scientist on different specialties (pastures, biodiversity) and that it was discussed and agreed upon by the three implementing agencies (UNDP-UNEP-IUCN). The EbA measures concept developed is aligned with the UNEP concept and it refers to reducing the vulnerability of populations, increasing the resilience of ecosystems and biodiversity and, sustainable use of biodiversity and ecosystems services; however, it does not mention the conservation of biodiversity as another important adaptation measure. The EbA methodology includes specific criteria for the VIA Studies. These criteria included the specificities of the relationship and dependence of the population to the ecosystems services and the length of time required to implement a measure and to foresee their impact. It also includes the criteria for the selection of communities to work with and the measures to be implemented. The necessity felt by a population to adapt to climate change was not included within the criteria for selecting a community, but it was part of the discussions. Later on, it was considered important within the lessons learnt identified by the project as some groups could be easier to work with than others when they feel they are being affected by climate change¹¹.
- 70) The monitoring document¹² includes an analysis of the different types of indicators that could be considered for the monitoring of EbA measures and for the follow up of future climate change patterns. The document was produced for a long term monitoring and to be implemented by the NYCLR management. The indicators defined were of different type: impact indicators (social, ecosystems /environmental and environmental services) to keep track of the effects of the EbA measures, management indicators, and exposure to climate change conditions indicators. The monitoring document was produced in a participatory manner, involving representatives of the institutions related to the management of the Reserve as well as the communities. WCMC¹³ contributed considerably to the development of the environmental indicators. Initially more than 50 indicators were identified, but they reduced them to 27. It was reported¹⁴ that the work on the indicators set developed by the Peru team was shared with other country teams during the 2014 Global Learning and Technical Workshop and a web page was provided as a reference¹⁵.
- 71) The toolkit¹⁶ with the methodologies was prepared under the leadership of UNEP and the contribution of the other agencies (UNDP, IUCN and TMI). It is a document that systematizes all the methodologies produced during the project¹⁷. A number of methodologies were produced throughout the project involving different actors. The main methodologies prepared were: 1) Vulnerability Impact Assessment (VIA) to define the most vulnerable communities to Climate Change; 2) ***Integrated Participatory Rural Appraisal*** (DRPI in Spanish) to select and implement Non-regret measure; 3) Two types of Cost-Benefit Analysis (CBA)¹⁸ and 4) to introduce

¹⁰ Sources: Interviews, Project's Systematization Document "*El Futuro Ancestral*", and PIR 2015.

¹¹ This necessity could vary in a farmers group comparing to miners and it was discussed within the lessons learnt

¹² Descripción de indicadores de las medidas de adaptación adoptadas por el proyecto EbA Montaña en la Reserva Paisajística Nor Yauyos Cochabamba. Pablo Dourojeanni. Proyecto EbA montaña. Diciembre-enero 2013-2014.

¹³ Project's Systematization Document "*El Futuro Ancestral*", interviews with executers.

¹⁴ PIR 2015.

¹⁵ <http://ebaflagship.org/ecosystems/mountains/peru?start=4> web page is no longer available

¹⁶ Pequeña caja de herramientas para facilitar la Adaptación al Cambio Climático: el caso del proyecto EbA Montaña en Perú. Gabriela López Sotomayor. 17 de marzo del 2016.

¹⁷ A listing of the comprehensive methodologies was provided.

¹⁸ The UNDP produced a Conventional CBA for Tanta, and IUCN a conventional and a qualitative for Miraflores and Canchayllo

the EbA concepts in Policies. All of the methodologies were produced through participatory processes such as workshops involving executers and authorities, and interviews to the parties involved in their application.

The overall evaluation rating on the delivery of outputs related to this Component is “Satisfactory”

3.2.2 Component 2: Application of methodologies and tools at ecosystem level

- 72) **Under Component 2** the main outputs were: Vulnerability Impact Assessment (VIA) Study; ii) the selection of sites for pilot projects and iii) the definition of the EbA measures.
- 73) Vulnerability Impact Assessment (VIA) Study.-The first output consist of a technical report of the VIA Study that covers the entire NYCLR and its buffer zone¹⁹. The report consisted in a written analysis and a spatial analysis of EbA with a series of eleven maps. Among the products of the VIA Study. The Study included a set of products such as: a conceptual framework of vulnerability to Climate Change based on offer and demand of Ecological Services, a definition of indicators to characterize different aspects, a vulnerability rating of the communities regarding their socio-economic characteristics, and a general identification of adaptation measures to be implemented at the NYCLR. Among outputs were: i) mapping of the key stakeholders; ii) diagnosis of the reserve and its buffer zone; iii) future CC scenarios of the whole reserve; iv) a set of indicators for socio economic vulnerability of the communities; v) a set of maps for current and future scenarios for farming and cattle ranching and its vulnerability; vi) hydrological vulnerability assessment; vii) assessment of current ecosystems services and future scenario.
- 74) The VIA also included a methodology to identified vulnerability based on an environmental services demand - offer with socio-economic, and which ended up in a series of socioeconomic sensibility indicators (see annex) and radial graphics that included a hydric index. The Study also presented a general identification of the EbA measures that are suggested for the NYCLR.
- 75) The VIA was done between August 2012 and December 2013 and was successfully completed, although its results were only used partially to select the most vulnerable communities and the EbA measures. First, it took six months longer than expected, thus, component 3 started earlier that the VIA Study finished, and secondly, the VIA identified EbA measures at a macro level, while the pilot projects identified adaptation measures at a detailed level. The VIA Study was performed by a consultant team, which was composed by national and international experts, contracted and supervised by UNEP.
- 76) Selection of sites for pilot projects.- Four communities were selected for the pilot projects (Tanta, Miraflores, Tomas, Canchayllo). Sites were selected before the VIA Study had finished and it is not clear for the evaluators whether the most vulnerable communities were selected. In the VIA Study Tanta shows a high hydrological index²⁰ and Miraflores a medium hydrological index, Canchayllo only shows a medium hydrological index. Similarly, while Tomas and Miraflores shows a high dependence on ecosystems, Canchayllo shows a much lower dependence than the majority of the communities. Communities that appeared to be highly vulnerable such as Carania or Chacapalpa were discarded. Carania because it has a very low population and reduced agriculture and cattle ranching, and Chacapalpa because it was located on the buffer zone.
- 77) Tanta was preliminarily selected by UNDP based on direct information obtained during their field visits to the reserve and through meetings with the NYCLR and the communities, and later with the preliminary maps delivered by the study. When the VIA was finished, it confirmed that Tanta was the most vulnerable community of the eleven communities at the reserve due to the risk of future changes in the runoff water and

¹⁹ Refer to Annex 1

²⁰ That shows demand for water

expected high demand, the grassland capacity saturation by year 2021²¹ and natural resources degradation²². Tomas was selected by UNDP towards the last year of the project considering the request of the community to replicate Tanta's experience.

- 78) Canchayllo and Miraflores were selected by IUCN without using most of the VIA Study. The selection of the two communities was done applying a set of Criteria. After that, TMI-IUCN run community consultancy to confirm local interest. Finally, they implemented a methodology called ***Integrated Participatory Rural Appraisal*** (DRPI in Spanish)²³ to select and design the non-regret EbA measures in detail. IUCN did not wait for the VIA Study to be completed as they started the selection of sites on April 2013 and the implementation on July 2013, whereas the VIA Study finished on December 2013. The first product of IUCN and TMI during this phase was the definition of criteria for selecting the sites and invited UNDP, UNEP and the Reserve's authority to use them to select the sites in a participatory manner. The criteria²⁴ identified were: i) to not have a high social internal and external conflicts; ii) to have relatively strong social organizations; iii) to have dependence on the NYCLR most important ecosystems for their livelihood; and iv) to have good relationships with the reserve's authorities. An additional plus for the selection was that the communities were located in different watershed of the reserve, thus they could serve as a comparison for their slightly different conditions. Different sources express that the IUCN approach to the VIA Study has varied. Some sources express that IUCN firmly stated from the beginning of the project that they would not use the VIA Study for community selection, and that later on IUCN admitted using the maps produced by the VIA and delivered in an early stage. During the evaluation, TMI-IUCN stated that they used available VIA information at the time of community selection (considering that VIA was still a work in progress). It is worth mentioning that according to some sources the approach of IUCN towards the VIA Study changed with the shift of IUCN project coordinator.
- 79) **Definition of Adaptation measures.**- Adaptation measures (EbA and no-regret EbA measures) were identified and implemented in the four communities i.e. Tanta (2 measures), Miraflores (1 measure) and Canchayllo (1 measure), and Tomas (2 measures). EbA measures were defined by UNDP in coordination with the NYCLR and the community, based on the preliminary definition of the VIA Study, but choosing those that they considered a priority and that could be achievable in the time and project budget. Non-regret EbA measures²⁵ and a plan for their implementation were identified by TMI and IUCN applying the ***Integrated Participatory Rural Appraisal*** (DRPI)²⁶ with the participation of the communities, NYCLR authorities, external experts and project partners. For such purpose they involved external and local researchers from the communities to define the specific adaptation measures at field level²⁷ and their participation improved the acceptance by the communities afterwards.
- 80) The appreciation of the VIA Study varied among actors. Some interviewers believe the VIA Study provided important information for the NYCLR Management Plan and the Regional CC Strategies and some believe it was a good idea to have applied different mechanisms for the identification of sites. Nevertheless, some interviewers believed the VIA did not comply with their expectation due to the level of definition of the EbA

²¹ VIA Study

²² The UNDP waited to have the VIA's scientific information to start working with Tanta, but, because the VIA study took much longer than expected (eighteen months instead of twelve), the UNDP started some preliminary interactions with Tanta.

²³ The methodology was designed by TMI combining the "Rapid Rural Appraisal", the "Participative Rural Diagnosis" and including the concept of integration which refers to the participation of multidisciplinary teams and the integration of the EbA and Non regret concept.

²⁴ Futuro Ancestral. Page 61

²⁵ The "No-regret" measures refers to actions that even when they may not be tackling the most vulnerable issues they do not worsen the effects of climate change. In other words, these are measures implemented to work in any condition (see component 3).

²⁶ The IUCN used the same methodology in the three countries of the umbrella Program

measures, others that the VIA was not that necessary as the DRPI was cheaper and faster, and finally, some believe that once the VIA was finished there was an attempt to force results and prove that the no-regret measures did align with it. After analysing the quality of the information and the project context, the evaluators consider the VIA Study provided valuable information for the regional and the NYCLR planning, and even when provided guidance for the EbA and non-regret measures its contribution could have been greater (see recommendations).

The overall evaluation rating on the delivery of outputs related to this Component is “Moderately Satisfactory”

3.2.3 Component 3: Implementation of EbA pilots at ecosystem level

- 81) Under this component, the main outputs were: i) EbA and non-regret measures implemented in four sites; and ii) Inclusion of EbA concept in the Regional Climate Change Strategies for Junín and Lima Departments and the inclusion of VIA Study and EbA concept in the Management Plan for the NYCLR.
- 82) Output 3.1. EbA and non -regret measures²⁸ implemented.- EbA measures were implemented in two sites (Tanta and Tomas by the UNDP) and non-regret EbA measures were implemented in two sites (Miraflores and Cahchayllo by the TMI and IUCN). The implementation of EbA measures involved: i) capacity building activities to the communities; ii) delivery of management plans to be implemented by the communities with additional training on community organization; and iii) putting in place infrastructure and fencing within communities land.
- 83) The project approach was to start first with the implementation of the infrastructure and fencing to gain the attention and the interest of the communities. In parallel planning / and strengthening of community organization, and training were delivered. Non regrets EbA measures were implemented by TMI and IUCN in Canchayllo and Miraflores²⁹, based on participative water and grassland management plans and production of a 3D model, which was part of a larger communication strategy that was key for the implementation process. EbA measures were implemented by UNDP, also based on grassland management plans (see products delivered through EbA and non-regret EbA measures implementation in table 3 below).
- 84) Sensitisation and capacity building workshops were delivered through different means: i) sensitisation of high school students; ii) establishment of a network of communicators of the NYCLR on EbA; iii) training to the communities through independent events delivered by the IUCN, TMI, the UNDP and even the UNEP; iv) training on vicuña management by doing and exchange learning field trips; and v) two theatre performances in Miraflores and Canchayllo. Within this component additional capacity building workshops and courses for a broader audience was also reported³⁰.

²⁸ The “Non-regret” measures concept is aligned with the Eba concept as: EbA measures are based on VIA Studies; nevertheless considering the uncertainties of the studies, the Non-Regret measures and focuses on maximizing positive and minimizing negative aspects of nature based adaptation strategies and options. It refers to activities that anyway would have a positive effect and reduce vulnerability without negative impacts. Zapata F, Torres M, Gomez A, Podvin K 2016. Inform of the Experience: Implementation of Non – regret Based on Ecosystems Adaptation measures, in the communities of Canchayllo and Miraflores.

²⁹ Capacity building activities held: Two workshops delivered to Miraflores and Canchayllo, training course for the four communities on productive systems and main pasture problems; exchange field trips among communities involved in vicuñas management. A participatory 3D modelling was developed in Canchayllo and Miraflores and a theatre performance in each one.

³⁰ the NYCLR and regional authorities by IUCN –and its international branch, the World Initiative for Sustainable pasture (WISP), two conferences for the decision makers for national and regional authorities and one for teachers and students of La Molina University; workshop organized by the IUCN, the SERNANP and the National Institute for the Sustainable Development (IISD) on the CRISTAL Parks tool (for the identification of risks, adaptation and livelihoods) to understand climate risk and integrate them in the reserves planning. The UNEP organized a course with CATIE (Centro Agronomic Center for Tropical Research and Training of Costa Rica) to the reserves chiefs of mountain reserves, MINAM and MEF on Ecosystem Services

85) Training on the traditional techniques for management and share³¹ vicuñas through exchange learning field trips was delivered when four members belonging to Tanta's Vicuña Association visited the National Reserve of Junín (Pampa Galeras and Ondores) to communities that manages vicuñas, harvests the fiber and does direct sales to international buyers, and when Tanta members were trained by NYCLR rangers. Additionally, two "chaccus"³² were organized in Tanta, one to capture and treat vicuñas against *Sarcoptes scabiei* and the second to shear them, and one *chaccu* was organized in Tomas. Besides a research document on fiber marketing was produced.

Table 3: EbA and no-regret EbA adaptation measures delivered

Pilot Site	EbA and no-regret adaptation measures
Tanta	Vicuña management (project defined a reserved area to keep Vicuña's separate from cattle and provided training to capture and provide veterinary treatment or shear vicuñas) Fencing of community pasture and plans for cattle rotations, plus 15 members fenced 4 ha of their grassland (in association with animal husbandry).
Canchayllo	Community based Native Grassland and water management plan Improvement of Ancestral Hydrological Infrastructure (2.8 Km channel and dam restoration to irrigate 560 ha)
Miraflores	Community-based native grassland and water management plan Improvement of ancestral and modern hydrological infrastructure: Conservation and management of pre-Inca upper micro-watersheds, wetlands, and water courses (Tubing of 4,4 Km)
Tomas	Vicuña management (in association with animal husbandry). 20 members lots fenced

86) Output 3.2. Inclusion of EbA concept on planning tools.- Additional outputs within Component 3 are the inclusion of VIA Study and EbA concept in the Management Plan for the NYCLR and the inclusion of EbA concept in the Regional Climate Change Strategies for Junín and Lima Departments.

87) In the NYCLR, the EbA concept was incorporated in POAs and the Management Plan for the NYCLR and was done through technical assistance provided to the NYCLR authorities.

88) The inclusion of the EbA concept on the CC Regional Strategies was done through technical assistance delivered to the regional governments which included training on the EbA concepts, mainly related to their watersheds, on the different subjects touched in the Strategy which were EbA, ecosystems and biological diversity, restoration of degraded areas, conservation of fragile ecosystems, (wetlands, tundra, mountain glaciers as they have retrieved in 58%) uses of the water (to serve Huancayo, irrigation, fisheries and hydroelectrically power), concepts related to watersheds, the negative effects of mismanagement the ecosystems and sustainable management of natural resources for ecosystems protection and for the livelihood of people.

89) Some training courses were done through a joint effort from the executers³³.

90) For the delivery of all the outputs, the project executers applied intensive and extensive participatory processes with the communities, and the authorities to introduce the EbA concept in the Regional Climate

³¹ PIR 2015

³² Quechua word that means working in group to capture vicuñas

³³ Training course on CC to SERANP, NYCLR and park rangers.

Change Strategy, and in the Reserve's Management Plan. (Those participatory processes are listed in the toolkit mentioned in Component 1).

The overall evaluation rating on the delivery of outputs related to this Component is "Satisfactory"

3.2.4 Component 4: Business case for EbA at the local and national levels developed

- 91) The main outputs of Component 4 were: i) conducting Cost Benefit Analysis of EbA measures, and ii) integration of EbA in national policies and finance.
- 92) Output 4.1. Three Cost-Benefit Analysis (CBA) were conducted, one by UNDP and two by IUCN-TMI, and reports were produced³⁴. Both UNDP and the IUCN-TMI applied Cost-Benefit Analysis to their pilot sites: the UNDP's CBA, focused on vicuña and pasture management in Tanta, and IUCN-TMI's CBA focused on the non-regret EbA measures in Canchayllo and Miraflores. The studies showed the economic benefits of the measures implemented under different scenarios (with and without CC) and comparing different financial interest rates of the investments. Both institutions hired consultants for the studies and also had the advice of a senior specialist from UNDP headquarters. As reported, the consultants made an initial attempt to apply the same methodology. Nevertheless, they used somehow different approaches and methodologies: The CBA on Tanta was a quantitative and had a broader approach³⁵ included gathering financial information from the EbA investments and analysing their return under different scenarios and rates applied by the financial institutions (9% interest rate or 4% interest applied for public environmental governmental investments). The CBA, done on Canchayllo and Miraflores by the IUCN-TMI, applied a conventional quantitative methodology (analysis of economic data somehow similar to the UNDP's methodology but with a stronger focus on the return of the community production) and a qualitative³⁶ methodology developed by the project (based on the analysis of a participative perception among local stakeholders from Canchayllo and Miraflores of the cost and benefits of the measures implemented). Besides the traditional economic data, it included a qualitative rating on environmental, social and climate change. As reported this methodology also tried to align with the UNDP's³⁷. The CBA quantitative methodology for Tanta was adjusted by the environmental economist in charge of the analysis after the close interaction with the New York UNDP economist expert on CBA expert, and during the Bratislava meeting for this specific purpose.
- 93) Output 4.2.- The incorporation of the EbA concept in national policies was done after the production of a set of political guidelines that were included in the National Strategy of Climate Change and within the Public Investment Policies (PIF) for 2015 to 2021 that deal with the Biodiversity and Ecosystem Services. The PIFs will be aligned to the National Strategy for Biodiversity (2012) and the National Action Plan and are used as a reference for the proposals of investment projects.
- 94) The conceptual guidelines were produced in collaboration with the UNDP project BIOFIN and approved by MINAM and the Ministry of Finance (MEF). To reach this output, the project hired a consultant specialized in Policy and Public Finance to work with MEF, MINAM and SERNAP, identifying opportunities and gaps³⁸ and the

³⁴ Documents with the results of Cost Benefit Analysis were produced by UNDP and IUCN-TMI and an additional short publication of UNDP.

³⁵ The Tanta CBA included a broader analysis of environmental services and included economical return regarding the cost of water for external users

³⁶ In the reports documents the CBA are called participative instead of qualitative

³⁷ It was reported by different sources that the economical consultants from UNDP and IUCN-THM had meetings to discuss the methodology applied originally in Tanta. Nevertheless, the actual studies were done independently thus, the UNDP coordinator or consultant did not know the actual CBA documents of the Canchayllo and Miraflores.

project had to coordinate with other International Cooperation projects and programmes led by MINAM and Minister of Finance (MEF), to identify tools for public investment, adaptation to climate change and risk and disaster management in a context of climate change.

- 95) At national level, the project also contributed for the construction of an EbA working group with the participation of SERNANP and UNDP project components. The working group originally focused on the follow up of the VIA Studies and the synergy of EbA within the NYCLR. Nevertheless, after the project finished, in the last months the EbA working has been reactivated to promote the inclusion of EbA within a SERNANP Strategic Plan with the collaboration of the EbA Amazonian and Lima projects.

The overall evaluation rating on the delivery of outputs related to this Component is “Satisfactory”

3.2.5 Component 5: Development of a learning and knowledge management framework

- 96) Output 5.1- Knowledge products to capture lessons on EbA produced and disseminated: The EbA project was expanded in early 2014 to include a component on Learning and Knowledge Management. To that end, UNEP revised the project in 2015 to include Component 5. Several activities were implemented at the global and country level that supported documentation and dissemination of knowledge products and lessons learned and fostering of South-South and global collaboration.
- 97) The project did not acknowledge the inclusion of Component 5 and products and outcomes under this umbrella were not reported either on the PIRs or in the Systematization Document³⁹ per se; nevertheless, the project produced and reported outputs and outcomes on knowledge management that were reported under the other components such as a series of technical high quality documents, policy documents⁴⁰ dissemination documents such as brochures, newspaper articles, and participative videos produced by the communities. In addition, the project prepared a series of technical documents to be share at international conferences including the COP20 (Lima) and COP21 (Paris). In the COP 20 the project participated in two sessions. One open to the civil society and the other Natural Protected Areas as effective Strategy for CC management in Peru.
- 98) One shortfall of the communication outreach of the project is that not all documents provide a comprehensive view of the project reducing the potentiality to induce knowledge dissemination. Instead, the information presented in many documents (including the IUCN-THMI systematization)⁴¹ is fractioned and only refers to activities, outputs or outcomes produced by one of the Agencies. Besides, during the evaluation there was not one single platform where all documents could be found. It was reported that during the implementation there was a Flagship Mt. EbA webpage, and in Peru UNDP led the development of a link of this webpage for Peru; however the link was no longer available.

The overall evaluation rating of the delivery of outputs related to this Component is “Moderately Satisfactory”

3.3 Effectiveness: Attainment of objectives and planned results

3.3.1 Achievement of direct outcomes as defined in the reconstructed Theory of Change

- 99) **Under outcome 1** the Outcomes are the knowledge and understanding of the concept of the EbA approach as an option for adaptation to Climate Change, as well as the knowledge on the methodology framework for the

³⁹ Futuro Ancestral

⁴⁰ Regional CC Strategies for Junín and Lima

⁴¹ Zapata F., Gomez A. 2016. Systematization Inform of the experience : Implementation of the Climate Change Adaptation non-regret measures in Canchayllo and Miraflores (NYCLR)

implementation of a VIA Study and other methodologies developed by the project, and the framework of 27 indicators developed to measure the impact of the EbA measures in the future. The direct outcomes achieved were that the developed EbA methodologies were used in project implementation. The conceptual framework and tools to guide a VIA Study were tested successfully by NYCLR staff⁴² for future use. Similarly, the institution which benefited most from this conceptual framework and indicator guidance of 27 indicators was NYCLR, and indirectly the communities of the Reserve.

- 100) **Under Outcome 2** the expected outcome was achieved partially. The expected outcome stated at the TOC is the increase of knowledge and awareness on EbA by authorities and the communities thanks to the application of the methodologies developed.
- 101) Thus, the expected outcome of the VIA Study was to identify the two most vulnerable communities (from the eleven communities in the NYCLR) for piloting EbA, and identify EbA measures for implementation at ecosystem level in the selected pilot sites. While the project selected four communities, only one community (Tanta) was selected using preliminary information of the VIA tool, and it is hard to attribute to the VIA Study the selection of the other three communities. As already mentioned, because of delays in completion of outputs under outcome 1, UNDP selected Tanta with SERNANP and the NYCLR authorities and started some interaction with Tanta before the study was completed. The VIA Study helped to confirm that the most vulnerable community was Tanta, which was chosen to work with by UNDP, because the risk of future changes in the runoff water and the grassland capacity saturation by year 2021⁴³. IUCN started implementing the EbA project (non-regret adaptation measures) in Canchayllo and Miraflores communities before the completion of the VIA study. Towards the end of the project (January 2015) UNDP started working with the community of Tomas, taking advantage that the president of Tomas had previous knowledge of the EbA measures implemented in Tanta and due to the high interest in the replication of EbA in the community.
- 102) The results of the VIA Study generated awareness and knowledge in climate change and EbA. In particular, the definition of the social and the ecosystems vulnerability of the NYCLR, and the Climate Change Scenarios (2011- 2030 and 2046 - 2065), which estimated that the temperature would increase between 0,61°C to 1,12°C between 2012 and 2030. It was reported⁴⁴ that the generated information is of high interest to the NYCLR authorities (the Reserve's management committee, SERNANP, the Ministry of Environment) for the management of the park. In addition, it was reported by the NYCLR and the implementing agencies that the participative processes for sites selection and the definition of measures, generated not only ownership but understanding of the CC effects, importance of EbA measures and sustainable management of the resources.
- 103) **Under Outcome 3** The main outcomes are: i) enhanced capacity to apply EbA measures and non-regret EbA measures; ii) the inclusion of EbA in the NYCLR management plan; and Regional Climate Change Strategies.
- 104) During the evaluation mission, it was relatively evident that the project had strengthened the capacity of communities. The community members expressed that their EbA awareness and knowledge had increased. This could easily be corroborated by what was happening on ground. The communities were applying the prioritized EbA measures to maintain the health of ecosystem to provide ecosystem services and improve their livelihoods, with many of them now aware that sustainable grasslands ecosystems management could help them to adapt to climate change.
- 105) Community members expressed their pride for the project achievements and the knowledge gathered on the effects of Climate Change and the importance of the activities performed in terms of protecting their water resources and grasslands. This is particularly important as the evidence collected by the project showed

⁴² PIR 2015

⁴³ NYCLR and its Buffer Zone VIA Study 2014

⁴⁴ Interview with Reserve's authorities

that many people's livelihoods in NYCLR depend on water and pastures, which are also the most heavily used ecosystem services and pressure from overgrazing had already (even without climate change) started to harm local economy, ecosystem functioning and ecosystem service provision. Besides the same communities have started to realize the effect of climate change, and many had started to migrate to the cities, and in despair didn't know their options to increase the resilience. The project time was too short for the communities to realise the benefits of applying EbA measure on their livelihood, but they had strong expectations. Additional outcomes were the strengthening of the communities' internal organization to manage community grassland or their vicuñas herds; in addition to strengthening of community networks for information, given that mass communication media does not reach their areas.

- 106) The incorporation of the VIA Study - indicators and the EbA concept on the Management Plan⁴⁵ and the improved POAs were pointed out by the NYCLR authority as important outcomes. The authorities consider that with this increase of knowledge they have better tools to do their tasks and to promote the sustainability and replication of the results generated by the project. Similarly, the inclusion of the EbA concept in the Regional CC Strategies⁴⁶ has provided guiding and working tools to the regional authorities, as the subject is included as strategic and priority objectives of the Strategy. Moreover, in Junín, the EbA concept has been included as a project within the regional portfolio. In addition, in Junín, the regional institutional Structure was reinforced through the creation and strengthening of a Management Committee, which represents the Junín Regional Technical Climate Change Committee. This management committee encompasses civil society, regional government and MINAM representatives who are working together in the preparation of the Regional CC Strategy.
- 107) One shortfall of this outcome, especially in regards the implementation of the adaptation measures is that even when some groups of the community participated in the decision making for the planning process of the adaptation measures they are not ready yet to continue monitoring or identifying new measures in front of new climate conditions. The evaluation team is aware of the short period the project had for working with the communities; nevertheless, it is important to consider that a project dealing with CC would consider the continuous changes in the future and the importance to create capacities to ingeniously face the solutions to new situations. An option could have been to include relevant training in regards to the Reserve's management Plan as well as the Regional Strategies. This element would have made a difference of the present project from others focused on sustainable management of a productive system.
- 108) **Under Component 4** the main outcomes are related to the increase of knowledge on the capabilities of EbA and non-regret measures, including their economic benefits and the inclusion of EbA in the national policy for finance mechanisms: i) through the involvement with key authorities (MINAM and MEF), the EbA concept has been included in one financial mechanism through a political financial line⁴⁷ for public investment with a specific line regarding adaptation measures and resilience. These lines have been used for a pilot experience in Tomas under the BIOFIN project; and ii) two sustainable and profitable local economic models that include the EbA approach; and ii) through the involvement of SERNANP, the EbA Concept has been included in the Strategic Plan of SERNANP and a working group for a continuous exchange and learning has been established.
- 109) Additionally there is an increase of national and international interest on the EbA concept thanks to the great effort done for dissemination of the project results. The increase of interest towards the project results of the international community is being expressed in invitations to present them at international events (such as the COPs) and in funding of new initiatives as the three agencies have other projects on the subject on the way.

⁴⁵ NYCLR Management Plan. It was also presented the reference ebaflagship.org/ecosystems/mountains/peru?start=2 but it is no longer available.

⁴⁶ CC Strategy of Lima, CC Strategy of Junín.

⁴⁷ Lineamientos de Política en Inversión Pública en materia de Diversidad Biológica y Servicios Ecosistémicos. 2015 -2012. Point 2.3.2 (item 1.4)

The evaluation rating for overall achievement of Outcomes is “Moderately Satisfactory”

3.3.2 Likelihood of impact: Review of Outcomes to Impacts (ROtI) Approach

- 110) The likelihood of impact (to increase the resilience of ecosystems and reduce the vulnerability of communities in the mountain regions to climate change) is examined using the TOC and ROtI. Overall, the likelihood that the long-term impact will be achieved is rated on a six-point scale as “Likely” (BC). This rating is based on the following observations:
- 111) The majority of project’s outcomes were achieved at country level and were designed to continue feeding into the NYCLR and Peru climate change adaptation and ecosystem management frameworks. Most of the project approaches, achievements obtained and lessons learned are well placed to increase uptake of outcomes into the adaptation process in the country. The incorporation of EbA in regional climate change strategies, in NYCLR Management Plan and the incorporation of EbA in the public financing framework are cases in point. Though the approach focused on specific parts of the ecosystems⁴⁸ (such as the pasture – grass land) do not provide a comprehensive view of all the elements of the mountain ecosystems (including wildlife such as pumas or native plants conservation), and do not provide an overall understanding of population interlinks with the ecosystem in addition to the explored ecosystem services. Though it is important to consider that this conceptual gap is also found within the umbrella project **Rating of progress towards Outcomes is “C”**.
- 112) Measures designed to progress towards intermediate states that are needed for eventual impact is evident in the momentum that the project has created towards climate change adaptation at ecosystem level in the NYCLR and Peru in general. With EbA measures successfully demonstrated, applied and the cost-effectiveness of EbA proved, confidence in EbA is high. Therefore, measures have started and though benefits are not yet evident, there is likelihood they will be obtained in the long-term, especially at local and regional level. However, unless follow up projects/interventions and financing are put in place by the GoP, UNEP, UNDP, BMUB, IUCN-TMI and other EbA partners to drive/scale up the project results, progress towards the intended impact may not be fully achieved. Although EbA has been integrated in the Regional CC Strategies, the Reserve’s Management Plan, and the policy guidelines for Project Public Investment, from which some funding can be obtained, existing funding is too small to scale-up and replicate project results.
- 113) According to the results framework in the reconstructed TOC, the three intermediate states are: (i) National development plans and climate change policies and actions that integrate EbA; (ii) Increased uptake and scaling-up of EbA practises by governments and communities in mountain ecosystem to adapt to a changing climate, and; (iii) Enhanced ability of the population and communities in mountain regions and countries to adapt to a changing climate. Given that (i) EbA methodologies and tools were developed and are available for use in future programmes, though some of them did not have enough transference or detail (ii) three economic cases were successfully made for investing in EbA, though they would have to be monitored again in the future, (iii) capacity was built at national⁴⁹, regional and local community groups to apply EbA measures, (iv) EbA was integrated in development policy and planning, (v) the project documented knowledge products and lessons learned, even when not all of them provide an overall view of the project, and (vi) the project provides small evidence of future replication⁵⁰ or possible scaling - up⁵¹ the project achievements are likely to progress to impact. **Rating of progress towards the Intermediate States is “C”**.

⁴⁸ EbA concept according to the CBD refers to a comprehensive understanding of the ecosystem. They are defined as: “the usage of BD and ecosystem services as part of a strategy that would help people to adapt to adverse effects of the Climate Change, to help reduce vulnerability and ecosystem resilience..... sustainable management, conservation of biodiversity and restoration of ecosystems.” As such it goes beyond the sustainable management of a productive system. Zapata et al 2016

⁴⁹ Mainly with SERNANP and MEF. There was some contribution to MINAM although it seems the project did not fulfill its expectations.

⁵⁰ At the Conservation Reserve of Huaytapayana

⁵¹ Junín and Lima Regional Strategies that includes some financial lines for EbA activities.

- 114) The project aimed to provide important contributions on the sustainable management of mountain ecosystems regarding tubing and storage of water, improved sustainable management and recovery of degraded native grasslands pastures as well as contribution to the recovery of populations of vicuñas. Even though there is still no evidence of the extent of the contribution made to increase the population resilience and the ecosystems resilience because the project did not evaluate its results. Besides, when the project mainly worked on the protection of water resources and sustainable management of grassland, the types and intensity of the results that have increased the resilience of populations to the Climate Change varied among the participating communities as they have some differences on their social and environmental context that shaped their necessities. For instance, some aimed to increase their resilience managing and protecting their sources of water (Chancayllo and Miraflores) developing management plans for sustainable pasture of their livestock through fencing areas and grassing rotation to allow grassland regeneration (Tanta, Tomas, Miraflores, Chancayllo), improving the breed of their livestock to increase productivity while reducing the number of the herd (Tomas), allocating a vulnerable area for vicuñas regeneration (Tanta) and training on management of alpacas and vicuñas (Tanta, Tomas and Chancayllo)⁵². Additionally, it is worth considering that some of the measures, as improving the storage and distribution of water on pasture areas, could more evidently contribute to increased resilience of the communities but not necessarily of the entire mountain ecosystems.
- 115) The project contributed with the overall purpose / goal which was “*to strengthen the Peruvian capacities to design and implement EbA measures to reduce vulnerability of communities*”. The capacity was strengthened at different levels, although the extent was uneven: i) At the national level, governmental authorities were thankful to have been given the opportunity to attend the training workshops, especially on the VIA study, but they expressed they would have liked to learn more about the methodologies for them to develop their own VIAs, thus it is a constrain for future sustainability as the authorities may have the capacity to use the outputs delivered by the project, but they don’t have the capacity to deliver similar products themselves, which makes them dependent on further external assistance; ii) At the national and regional levels, SERENANP authorities acquired capacities to integrate EbA concepts in their Reserve Management Plan and to integrate the EbA indicators as part of their monitoring plan for the future; iii) At the regional level, the regional governments and the institutions with whom they interact acquired capacities to integrate EbA concept in their CC Strategies and in the means to implement it; iv) At the local level, the communities involved acquired knowledge on CC and EbA measures through their participatory monitoring processes and implementation of EbA measures. This was mainly done by training some of them as local researchers, giving them guidelines throughout the project while at the same time giving them the freedom (appropriation) to select measures, thus, feeling that this was their project and for the benefit of their people.
- 116) Nevertheless, the project missed the opportunity to produce synergy with the concept of Biodiversity Conservation as an additional strategy for CC adaptation as part of the EbA. In many documents EbA refers to use of biodiversity or resilience but do not specifically refer to biodiversity conservation and /or improving the native ecosystems resilience, though this gap comes from the original EbA concept stated at the umbrella project. Similarly, in the VIA Study, the methodology model refers to demand and offer of ecosystem services; nevertheless, this approach focuses on the elements that are produced by the ecosystem that are valuable for people. However, a holistic view would refer to understanding and providing the conditions for a healthy interaction of all the components of the ecosystem to increase its resilience⁵³. Local communities did talk about the sustainable development, but mainly referring to sustainable management of productive systems and the importance to take *into account anticipated climate change impact trends to reduce the vulnerability and improve the resilience of ecosystems and people to climate change impacts*. From the interviews, it was feasible to understand that when the community members talk about sustainable development, they refer to long term maintenance of the resources they care for: i.e. management of their grassland and cattle, and the

⁵² Sources of information EbA and non-regret measures reported in: i) PIRS; ii) Systematization document *Futuro Ancestral*; iii) Grassland management plans; and iv) focus groups at the communities.

⁵³ An ecological aspect to take in consideration is providing room for natural vertical migrations to adapt to the climate at different altitudes.

maintenance of the ecosystem services they require such as water. In the case of Tanta, community members also refer to the sustainable management of vicuñas⁵⁴. Nevertheless, the communities missed the concept of conservation of other important species or a holistic comprehension of the native mountain ecosystems where they live. Only in Canchayllo there was a reference to the importance to conserve species from the higher trophic level (such as pumas) because the elders believed they help to maintain their cattle population under control (they explain such concept in terms they would traditionally understand, which was that “it is good luck when the puma eats a cow because later on they will have more healthy calves” which can be interpreted that reducing the size of their livestock herds the grassland is not saturated and they have a greater chance to raise healthier new calves).

- 117) Nevertheless, the project’s legacy and achievements provide a very strong foundation on which to continue to build ecosystem and community resilience to the impacts of climate change. By raising awareness and confidence in EbA, proving the viability and sustainability of EbA options as compared to non-EbA options, building the capacity of project partners and beneficiaries to plan and implement EbA, creating EbA champions at national and local levels, and creating the political buy-in and support for EbA, the project was successful in putting in place the necessary drivers that are catalytic to the adoption and scaling up and drive it to impact, while at the same time delivering multiple co-benefits, helping avoid mal-adaptation and contributing to ‘no regrets’ approach to address climate change.
- 118) The effective documentation of EbA knowledge products, as well as communication and information sharing mechanisms put in place will drive the project outcomes to impact through sharing of lessons learned, even though the difficulties to access a compiled source of all documents. The project’s success in influencing the integration of EbA in the Regional CC Strategies, Reserve’s Management Plan, and funding lines for *Public Project Investments (PPI)* and community plans, has a high likelihood of contributing to climate compatible development in the NYCLR and in Peru in general. Therefore, whereas many other factors need to come into play before such policies and plans can be reflected in increased climate resilience, the EbA if implemented, has a high likelihood of impact. These development policies and planning are likely to attract private, public and foreign funding that could scale up and replicate EbA options that could reduce climate vulnerability in Peru.

The evaluation rating for the likelihood of achieving impact is “Moderately Likely”

3.4 Sustainability and Replication

3.4.1 Socio-Political sustainability

- 119) The existing legal and political environment presents conditions that are conducive to enhance sustainability of the project’s outcomes, mainly at regional levels. Besides, the project integrated EbA into regional legal and political channels through solid participative processes that would make it unlikely that these results could be lost with possible changes in governance. For instance the integration of EbA within the CC Regional Strategies has strong legal and political conditions that would promote its sustainability. First, at the national level Peru has signed to be part of the UNFCCC as an active participant and under this mandate, the Climate Change Unit within the Ministry of Environment (MINAM) updated its National climate change Strategy and the Regional Governments also had to update their regional CC Strategies. The regional climate change Strategies of Lima and Junín were produced through intensive participative process, were officially approved by different hierarchies of representatives (technical group, Regional Council) and followed all the legal steps up to the point of being officially registered. The integration of EbA within the Reserves

⁵⁴ Sustainable Management of Vicuñas for the Tanta community means to maintain an area for vicuñas only, separated from cattle, to protect the grasses they feed on, to allow the increase of vicuñas population up to the area’s capacity, to provide them veterinary treatments and to share their fiber.

Management Plan also supported the mandate of the Government of Peru to update the Reserve's Management Plan and it also followed the legal process to be approved. The process had a strong participation of the Reserve's stakeholders.

- 120) The social context provides conditions for the sustainability of the outcomes because up to some degree, all of the communities have a social organization; therefore it is feasible they would make a joint effort to implement the management plans and maintain the infrastructure (channels / small dams) delivered by the project and that eventually would benefit all the members. Social context outside the Reserve could provide the conditions of sustainability if the population that depends of the water produced by the Reserve would be better aware of the importance of the environmental service the Reserve provides. The Evaluation did not find evidence of general public awareness, besides the newspapers articles, but it is expected, this information would spread through the implementation of the CC Strategy and the dissemination of the 1000 booklets produced by the project.

The evaluation rating for socio-political sustainability is "Highly Likely"

3.4.2 Sustainability of Financial Resources

- 121) The integration of the EbA concept within the regional CC Strategies and the Reserve's Management Plan created a possibility that EbA will be implemented in the future within their frameworks, particularly since the institutions that have the responsibility to implement them have the required financial resources from the national budget.
- 122) At local level, the communities and groups that participated in the project have not proved local benefits yet in terms of an increase of income as a result of the project. However, there is likelihood that they will start experiencing them in the near future.

The rating for the financial sustainability is "Moderately Likely"

3.4.3 Sustainability of Institutional Frameworks

- 123) The existing institutional framework presents conditions that are conducive to enhance sustainability at national level but more so at the Junín and Lima regions. First, there is a Climate Change Unit within the Ministry of Environment (MINAM) that coordinates a series of projects on Climate Change mitigation and adaptation. In fact, the MINAM requested the Regional Governments to update their regional CC Strategies, and took part in this endeavour. At the regional level, the Regional Governments have a Directorate in charge of Natural Resources and Climate Change mitigation and adaptation, and that had the mandate to update the CC Strategies at the regional level. Thus, the technical support from the project to include EbA concepts and objectives were very welcomed. Third, at the regional level there are strong Technical Committees where the most relevant regional institutions work together to guide regional policies, that participated in the process.
- 124) At National and Regional levels, there is a strong institutional structure that holds the responsibility for the sustainable management of the Protected National Reserves. One of these is the NYCPR. The integration of EbA within the Reserves Management Plan was conducted with the support of the SERNANP at the national and regional level.

The rating for the institutional sustainability is "Likely"

3.4.4 Environmental sustainability

- 125) The protection of ecosystems from overexploitation and the activities implemented for water management could have the potential to maintain water retention and production, thus improving the resilience of the same ecosystems unless climate change would produce catastrophic events.

The rating for the environmental sustainability element is “Moderately Likely”

3.4.5 Catalytic Role and Replication

- 126) The project has created incentives for replication among the stakeholders that participated in the project’s implementation. For instance, UNEP, UNDP and IUCN already have different projects in Peru and in other countries. The regional authorities of the Conservation Reserve of Huaytapayana, which is relatively close to the NYCPR, is requesting the SERNANP, the authority of the Reserve, and the Reserve’s community members to transfer their knowledge learned from the project through participative exchanges. Also at the local level, the municipalities of Tanta and Miraflores reported they have proposals for projects on the subject and are looking for ways to finance them.
- 127) The replication of the VIA methodology in other areas is uncertain, firstly because the authorities expressed they were not sufficiently involved to have the knowledge for its replication, and secondly because at regional and local levels some authorities and stakeholders considers the cost was high for them. Nevertheless, they consider the product they received was useful to have a better understanding of the Reserve.
- 128) At the national level, there is the possibility that SERNANP would expand the institutionalization of the EbA working group, installed for the NYCLR Strategic Plan, for the inclusion of the EbA concept within the CC Strategies of the whole National Protected Areas System.
- 129) At the regional level the authorities reported they are in the process of introducing the EbA concept in other political instruments such as the Regional Participative Development 2000–2050 and currently the Junín Regional Government is introducing the climate change approach of EbA on the Institutional Strategic Plan 2016–2018. The Junín Regional Government has also approved the Regional Biodiversity Strategy that includes the CC Approach even though the project did not provide support for this process.
- 130) At the community level the replication of the EbA or non-regret measures would be more difficult because of the costs involved. The implementation of the measures already during the project required, not only a considerable number of labour hours, but also to purchase what the communities considered expensive materials for fences or, even more expensive, materials for the water channels.

The project’s catalytic role and replication is rated as “Moderately Satisfactory”

3.5 Efficiency

3.5.1 Cost-effectiveness and financial efficiency

- 131) Whereas no cost-effective measures are mentioned in the project documents, a number of measures to promote cost-effectiveness were adopted during implementation:
- i. The project established proactive partnerships to reduce costs and to obtain maximum returns for efforts. The authorities used their political influence to invite other important stakeholders for the

- workshops for the regional planning processes and provided support to promote the approval of Strategies at the higher political levels.
- ii. For the implementation of the VIA study and the implementation of the EbA and non-regret measures, the project also established a strong partnership with SERNANP at national level and with the reserve's authorities at local level. Otherwise, the project would have needed much more time to gain the trust of the communities to be able to work with them.
 - iii. Co-financing was not considered in the project's design. Nevertheless; there was an important co-financing component coming from the regional authorities and local communities, even when it had not been requested. The Regional Government provided vehicles for the workshops, while the project provided fuel and materials, and contributed with staff time and members of the Technical group (around 40 people). Similar arrangements were made with the Reserve's authorities.
 - iv. The local communities contributed with their time, transportation⁵⁵ and labour, which, as reported, was not easy to obtain at the beginning and required a sensitization process as some people requested to be paid to participate in compensation for the time they used from their own jobs.

3.5.2 Timelines

- 132) As reported by the Implementing Agencies, in general funds were available as planned and delays on implementation due to fund delivery delays were not reported. Except for in one occasion when disbursements from funds coming from UNEP Nairobi experienced delays because of changes in its financial system from the IMIS to UMOJA. However, as reported, this delay in general did not affect the Project. The institution that was most affected was the UNEP Regional Office based in Panama. Neither the UNDP nor the IUCN had delays in receiving funds from their headquarters. The Mountain Institute that implemented the IUCN activities did not report having had any delays receiving funds from the IUCN Office in Quito. As reported, they knew that the processes to request funds required time so they usually started the procedures with enough time in advance.
- 133) Overall, the majority of the Implementing Agencies reported that the time proposed for execution of project was too short. The executors expressed they worked fast, even though there was an underestimation of time due to the fact that the third component required the first and second component to have been completed (see Annex 3) Overall, the weaknesses regarding timeliness were:
- i. *Preparation of the VIA took longer than planned.* - It was reported that the implementation of this activity took six months longer than expected (it was planned for one year but it went from August 2012 to December 2013), and this delay affected the beginning of the other components. The situation became more difficult as the VIA team did not agree to provide partial information before the delivery of a product that could enable a close monitoring of the Study, and consequently the field pilot project could not start earlier.
 - ii. The IUCN did not wait for the VIA to be completed. They started their fieldwork on April 2014 in Canchayllo and Miraflores. They had previously initiated the phase of consultation, appraisal and design since 2013, and had proceeded to select the sites applying their own methodology (Community Based Assessment (CBA) - Participatory methodology) based on defined criteria) and defined / designed the non-regret measures through a community participatory methodology. When the VIA completed, there was some pressure to state that it helped confirm that the project had chosen the most vulnerable communities to work in.
- 134) UNDP started field activities on Tanta as soon as the VIA was completed in January 2014. Tomas was added later on in January 2015. It was reported that even when the work with the communities was fast, and the

⁵⁵ Transportation includes labor, usage of animals and trucks provided by the municipality of Miraflores to bring materials from Huancayo to the communities.

EbA and non-regret measures were implemented, there was not enough time to gather data on the impacts of such measures.

The overall rating for efficiency is “Satisfactory”

3.6 Factors Affecting performance

3.6.1 Preparation and readiness

- 135) Project Design and Structure Project stakeholders at the national and local levels were adequately identified in the Project Document, including, among others, national, regional and local government entities and some political leaders, who were involved in the project design, and research and academic institutions. The communities of the Reserve which are highly dependent on ecosystems for food security and livelihoods were correctly identified, and even when they were not consulted for the production of the Project Document, they welcomed the project during the implementation.
- 136) The project design had some weaknesses related to the conceptual framework and the Logical Framework that up to a point, constrained the project performance. One important shortfall was that even when the approach of adaptation calls for ecosystem management, it does not specifically express the inclusion of conservation of biodiversity. It does include the concepts of sustainable use of ecosystems and the use of biodiversity, but, an intrinsic issue in ecosystem management and conservation is the conservation, not only usage, of biodiversity. The inclusion of the approach of the conservation of biodiversity is important because there are species that may not be of any use or provide any direct environmental / ecosystem services, though they are all part of an ecosystem equilibrium. Besides, the conservation of species could eventually provide services that are not known yet but could enrich the possibilities of adaptation. Thus, conservation of biodiversity is also an important adaptation strategy.
- 137) Inclusion of the government needs in the project goals -The project design took into consideration that project implementation would take place at a time when the authorities had the mandate to update the Regional Climate Change Strategies and the Management Plan of the Reserve. This made them see the project as an opportunity to comply with their mandates and opened their receptiveness to support the project.
- 138) The Implementing Agencies had their financial and accounting systems in place as well as required arrangements for project logistic. Nevertheless, the contracts of the project coordinator and the UNEP technical advisor took six months. In addition, it took months until the IUCN reached an agreement on a suitable path of interaction with the Mountain Institute that was contracted to jointly implement the IUCN activities.
- 139) Usage of relevant lessons and experiences from other initiatives and projects for the present project was not detected. The Project Document mentions other projects and initiatives that were taking place in Peru before this project and during its design but there is no specific mention that they integrated any lesson learned from them. Nevertheless, it was reported that during implementation, they had interactions with few initiatives on high Mountain Ecosystems such as those from “The Peru GEF - Small Grant Program” to understand mechanisms to interact with communities.

Overall, the project preparation and readiness was “Satisfactory”

3.6.2 Project implementation and management

- 140) The project was implemented by UNEP, UNDP, and IUCN. The management arrangements were based on international and national agreements. UNEP had the overall responsibility for the delivery of the project and signed the legal agreement with the donor. IUCN based its work on an internal signed agreement with its

headquarter in Switzerland. The management arrangements proved to be efficient despite the challenges of having multiple implementing agencies and despite that two of them were not present in Peru (UNEP in Panama, and IUCN in Ecuador). However, as the IUCN had appointed a focal point in Nairobi to be in charge of the Coordination of Global Ecosystem Programs, there was a direct communication link between the UNEP headquarters in Nairobi and the IUCN focal point.

- 141) The Project Document established the division of activities between the three implementing agencies for which they were responsible for. Nevertheless, it was reported that there were difficulties at the beginning of the project in regards the details of the division. The agencies agreed that: i) UNEP was to act as the overall project coordinator; it signed the agreement with the donor; ii) at the project level, UNEP had the responsibility to implement Components 1 and 2; iii) UNDP had the role of coordinator and implementer of Components 3 and 4; the IUCN had the responsibility for the activities of Components 3..
- 142) Reported in evaluation interviews, the project coordinator appointed within UNDP had a proactive and constructive disposition to facilitate interaction among the implementing agencies. As project Coordinator, UNDP acted as a facilitator among the institutions. It was reported that the coordination was at times challenging but that the coordination was possible due to the conscious and extraordinary efforts and the positive disposition from all parties.
- 143) UNEP contracted a technical advisor to work full time at the UNDP office whose role was to ensure the compliance with UNEP's requirements. As the technical expert was stationed at the UNDP's office, he worked in close interaction with the UNDP project Coordinator to provide her general support. This proved to be highly beneficial especially at the beginning of the project when the coordinator was alone. A technical advisor was contracted only in Peru but showed to be quite strategic for the project delivery in Peru. The interaction between UNDP and UNEP was smooth, and the conditions that helped this interaction were that both institutions have similar processes and that the project coordinator at UNDP had good working relations with UNEP's technical advisor.
- 144) Since the closest IUCN regional office for South America is in Quito, IUCN established a contractual alliance with Peru's The Mountain Institute (TMI) to implement the activities at the country level (non-regret EbA measures at Canchayllo and Miraflores). At the beginning, the interaction with TMI was distant as it was perceived that TMI would interact through IUCN and not directly with UNDP or the MINAM / SERNANP. This arrangement was challenging and resulted in delays in e.g. decision making, until IUCN recognized TMI as an additional member of the project that could interact directly with the rest of the team. A situation that happened due to a lack of communication was that the Community of Canchayllo⁵⁶ used explosives to remove big rocks to repair the water channel in Canchayllo⁵⁷. The SERNANP submitted a complaint about it, however, at that point there was a weak trust between the SERNANP and TMI. TMI (as IUCN implementing partner) reported that as soon as TMI knew about the incident they met community leaders to find alternative ways to remove rocks and also met SERNANP and UNDP to clarify the situation. However, it was reported that this disagreement did not have serious consequences and that it was an opportunity to define a direct paths of interaction between TMI and UNDP and for TMI to act as a national partner⁵⁸.
- 145) One aspect that caused challenges towards the end of the project was related to the dissemination processes. Despite the efforts of UNDP to play a coordination role and despite the fact that the executers managed to compile a document that included the systematization of the entire project⁵⁹. Different Agencies have compiled mainly the documents they produced, and/or report information mainly on their products. This problem was more acute regarding. For instance, UNDP did not have the final documents of the CBA

⁵⁶ Some stakeholders pointed out TMI as the responsible of this unfortunately event, while IUCN pointed out that it was done by the Community, though because the work was done under the coordination of TMI, the organization assumed the responsibility. IUCN also pointed out that *"The measures were done in a participatory manner with the communities. In this case; it's also worth mentioning that communities sometime use explosives"*.

⁵⁸ Direct paths of communication were mostly set during the process of defining the setup of all logos so all institutions/organizations implementing the initiative were represented.

⁵⁹ Futuro Ancestral. 2016

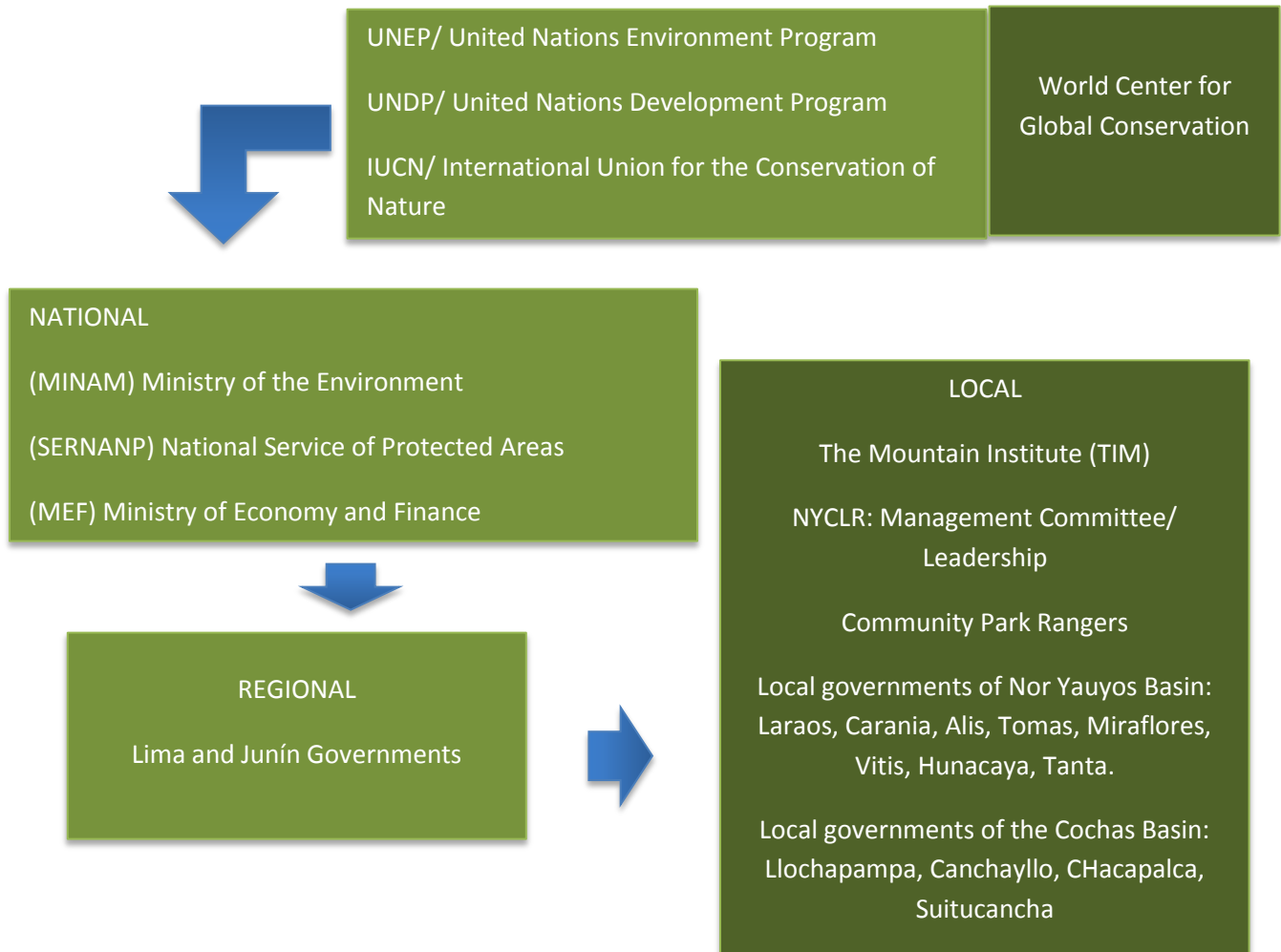
produced by IUCN as they reported they were not delivered. IUCN had a distinctive dissemination process in place. For example, IUCN had prepared a virtual catalogue that only deals with IUCN implemented components. Instead, the project should have produced a virtual catalogue of the whole project. This might limit any person interested in the subject, but not familiar with the project to get an overall comprehension. As an example, during the evaluation, this was also a difficulty faced by the evaluation process, since when requesting for the project information, IUCN delivered only IUCN documents, which prevented from having an overall view of the project. It was later clarified when the other agencies (UNDP- UNEP) provided their own documents.

- 146) Some of the project products were produced through contracts with individual consultants and sub-contracts with organizations. For instance, UNEP signed a contract for the design and implementation of the VIA (Results 1 and 2) and IUCN contracted The Mountain Institute for the design and implementation of the non-regrets EbA measures (results 2 and 3). Overall, project implementers expressed that delivery against the contracts and the sub-contracts was satisfactory. However, concerns were raised that the process of preparing the VIA studies did not follow a participatory process particularly in terms of discussions on the progress with the delivery of the activity. Questions were also raised whether advice provided by the UNEP World Conservation Monitoring Center on the VIAs was adequately considered and followed. It was also reported that UNDP started with Tanta first and months later with Tomas due to insufficient staff. There was a general concern of the implementers that the length of time scheduled for the project implementation was insufficient.
- 147) The project involved a multidisciplinary team among the agency coordinators and technical consultants hired for the different tasks, which enriched the outcomes and understanding of the CC effects. In relation to the question if any gap was detected by the Evaluation Team, the answer could be that it would have been desirable for the project to hire an ecologist with knowledge in high mountain ecosystems to enrich the overall vision of the project, for instance regarding the strong links between biodiversity conservation as an important adaptation strategy to Climate Change. This expertise was not considered either within the technical group contracted to implement the VIA, nor in the research group hired by the IUCN for the Community Based Assessment (CBA).

The rating for project's performance in implementation and management is rated as "Satisfactory"

3.6.3 Stakeholder participation, cooperation and partnerships

- 148) The project involved the relevant stakeholders through information sharing and consultation and by seeking their participation in project design and implementation and M&E. The Project Document makes a reference to stakeholders' participation during the design, especially at national level. During the implementation, the project established important partnerships at national, regional and local levels, especially with those institutions that had political influence and a mandate related to the project goals and with the vulnerable communities at the reserve. The project also had a close interaction with the main stakeholders at national, regional and local level because many of the products were based on a participative interaction with them, as many stakeholders had an important role in defining and implementing the activities. Graph 1 shows a general perspective in partnerships established by the project.



149) Government authorities were not part of the Project Steering Committee; nevertheless, the project did establish strong interactions with the government authorities at different levels, including strategic planning for specific issues. The project implementation site (NYCNR) was jointly selected with MINAM. The pilot communities within the reserve were selected with the Reserve’s communities and other authorities, and the activities to be implemented at the sites were also anticipatively decided with external scientist and with the communities.

150) At the National Level, the Project established a partnership with the Ministry of Environment (MINAM) and the Director of Climate Change (CC), and was also able to share knowledge with the global partners during study tours and workshops. They received the information produced with the VIA Study. However, on the other hand, the authorities expressed they would have liked to be involved more in the VIA Study and to have training in the VIA’s methodologies.

151) Other line of interaction of the project with the MINAM and CC Directorate was the production of the Regional CC Strategies, as the MINAM and the Directorate have the mandate to provide support to the Regional Governments in the production of their own Regional CC Strategy update. Complementarily, the project also established an important partnership with the Regional Governments of Junín and Lima through their Directors of Natural Resources and Climate Change. The project took advantage of the momentum as they required updating their Climate Change Regional Strategies to comply with the national government’s

mandate. For the CC Strategy, the project also established a proactive partnership with the USAID project. The partnership was a win-win situation; the regional government benefited from developing the CC Strategies while the project complied with the task to introduce the EbA concept in the Strategy and also benefited from being able to gather information during the workshops and to promote training on EbA and CC. They established highly cooperative interactions with the Regional Governments, which provided their political and logistics support.

- 152) Within the two Regions, there were Regional Technical Committees formed by regional stakeholders. The regional governments also provided political support for the project team to successfully liaise with these Committees to develop the regional Climate Change Strategies.
- 153) It was reported that establishing the partnerships with the Regional Governments required a special effort from the project. With the RG of Junín the process of establishing partnership took longer and required more extensive communication but the relatively distant partnership at the beginning of the project was eventually strengthened, partly contributed to changes in the project implementation arrangements. Establishing a partnership with the government of Lima also took some time, partly due to frequent changes in the government which resulted in not having a clearly designated counterpart for the project. Furthermore, the distance from Lima to the Region was longer thus making it less feasible to visit as often as from Junín. Later on, MINAM appointed a very effective technical advisor for the development of the strategy and the process was completed in an efficient manner⁶⁰. As a mechanism to promote interaction between the implementing and executing agencies, the project contracted one consultant to interact with each RG, to facilitate workshops and to identify subjects to be included in the capacity building processes and in the CC Strategies.
- 154) Institutional alliances were established with the MINAM, SERNANP and MEF. At the national, regional and local levels SERNANP was a decisive partner as it was responsible of the management of the Landscape Reserve (NYCLR). The SERNANP partnership provided the political and technical support in the VIA Study, and the synergy to include the EbA concept in the Reserve's management plan update. It also facilitated the interaction with the communities, to define vulnerabilities and to implement EbA and non-regret measures at the community level. The only case of a weak interaction reported was at national level, where the MINAM authorities expressed they would have liked to have greater involvement and form part of the VIA Study and to have training in the VIA's methodologies and not only their results. The MEF partnership was established to identify a financial mechanism through the Public Investment projects (PIF in Spanish).
- 155) IUCN and TMI established an alliance with the Laboratory of Ecology and Pastureland of La Molina University and worked closely with it, for instance to develop the Participative Diagnosis. Later on, UNDP also established an alliance with this institution. The IUCN reported that they also signed a Technical Agreement (May 2015) to carry out some joint activities including: a) to strengthen the management capacity of the NYCLR in CCA (providing advice and systematization and design a strategy); and b) to carry out a study to understand current capacity and potential for capturing and storing water in the upper Cañete river basin (activities until Nov. 2015)⁶¹.
- 156) At the local level, the partnership approach of the project varied, but in general it encouraged linkages with the entire community, and / or focus groups within the communities. The project had a participatory approach for the definition of EbA and non-regret measures. Because of its participatory approach, the project provided channels for stakeholder's feedback, mainly the community members involved.
- 157) The Evaluation Team did not find evidence that the project had established communication channels to receive views of opponents or unconcerned people. The stakeholder perception of the project was mainly positive, but at the community focus group in Tanta, a group of opponents claimed not having had the chance to participate in the project. However, the majority of people expressed that the project invited the whole community to participate at the general assembly, but the opponents did not want to participate at the beginning and that only after they saw the project's benefits they expressed their wish to get involved.

⁶⁰ The MINAM's technical advisor was involved in defining clear necessities, producing TORs to recruit consultants and to review partial products. The technical advisor established good interaction with the government of Lima.

⁶¹ There is a memoir of the main workshop, the preliminary report of the study and technical reports

- 158) At local level, the project hoped to establish linkages with the municipalities of some communities (Tanta and Tomas), but it was not always feasible. It is worth to highlight that for many communities the municipal level overlaps with the community level. In general, the two structures deal with the same group of people. However, in Canchayllo it was reported that originally there was cooperation with the municipality; nevertheless, when the authorities changed they showed less interest in the project due to their limited involvement in farming, i.e. livelihood⁶² more directly addressed by the project. It was reported that in Miraflores and Canchayllo some activities of the grassland and water management plan were included in the participatory budget of the municipality⁶³.
- 159) In the case of Tomas, the partnership with the community level was stronger as the President of the community association was a former forest ranger from the reserve as well as a consultant of the project for the training process when he worked in Tanta gathering information about vicuña management. When he left and ran for president of the community at Tomas, he was highly interested in the replication of Tanta's activities in Tomas. In addition, the Mayor had also shown a high interest in working with pastures.

Stakeholder participation, cooperation and partnerships is rated “Highly Satisfactory”

3.6.4 Communication and Public Awareness

- 160) The project implemented appropriate outreach and public awareness campaigns. The project developed an important number of communication tools and activities such as face to face meetings and workshops. Some communication tools were specifically done for the communities like the Communication Guide for Local Communicators, or the management plans of grassland and water⁶⁴. The communication tools did consider different audiences but the majority was directed towards national decision makers and the international community, as they were highly technical. At the regional level, and to communicate the EbA concept to main regional stakeholders, the project made use of the regional technical networks used for the decision-making process and in technical interaction (the Regional Technical Committee⁶⁵) thanks to the support of regional authorities.
- 161) At community level, the project's approach was to disseminate the information through the community's assemblies where the whole community could be informed. This was especially important in communities where not everybody got involved (Tanta and Canchayllo). This did not always prove to be effective. In the case of Tanta, organizing assemblies was difficult due to internal division of the community. In the case of Canchayllo where only a focal group of the community was involved and in Miraflores, where everybody was involved, theatre presentations took place and they proved to catch the attention of people as the majority of the community attended the presentations, other effective communication strategies involved the production of a 3D model of the intervention area, and the production of participatory video⁶⁶ presented to the community and in Canchayllo radio shots⁶⁷.
- 162) For extended national and international audiences, the project developed different communication tools and channels during the implementation. Overall, all of the publications for the general public are very attractive, easy to understand (even technical documents such as VIA and the Cost – Benefit Analysis), and have accurate information. The main channels for communication were:

⁶² The municipal authorities came from the transportation association.

⁶³ Zapata F., Gomez A. 2016. Systematization Inform of the experience: Implementation of the Climate Change Adaptation non-regret measures in Canchayllo and Miraflores (NYCLR). Pages 42 -43.

⁶⁴ Grassland and Water Management of Miraflores community, Yauyos, Lima, NYCLR. MI, RPNYC, IUCN. EBA montaña.

⁶⁵ National Public entities, NGO, Universities, Organized Civil Society, private entities (Chamber of Commerce / Coordinator of rural producers) environmental dialogue (dialogue space given by organizations at Cuenca del Rio Mantaro)/ Ashaninka Center of the Tambo river and Ashinka Center (30 Native Communities in the jungle)

⁶⁶ Zapata F., Gomez A. 2016. Systematization Inform of the experience: Implementation of the Climate Change Adaptation non-regret measures in Canchayllo and Miraflores (NYCLR).

⁶⁷ Inform of implementation measures in Canchayllo (IM, 2016b) page 26

- i. Although web pages were not developed specifically for the project, it was reported that there was a link created for Peru as part of the Flagship Mt. EbA programme webpage, but the link fell and wasn't re-established. In addition links to the web pages of the three implementing agencies were established. This strategy was not conducive to have overall information on the project as each agency provided information on their individual activities.
- ii. Technical Documents (VIA, EbA, Cost Benefit Analysis, Communication Guide for local communicators) were produced.
- iii. Brochures and Fact Sheets in Spanish and English to provide quick information on events (national / internationally) were also prepared.
- iv. Technical publications and presentations of technical documents to be presented at workshops, the CC COPs or international conferences.
- v. News in local newspapers was published often which allowed the local community to know what the project was doing.
- vi. YouTube videos were made to allow many people see what the project was doing.

163) The project developed a learning process through a systematization of the project experience. It included the joint compilation, analysis, discussion and production of documents with the overall account of the project, its achievements and its lessons learned. There were two different sets of systematizations, the first produced by The Mountain Institute and the IUCN for the processes they implemented in Canchayllo and Miraflores, the second produced afterwards as an overall Systematization of the whole project where UNEP and UNDP participated together with IUCN and TMI to produce the document. The first document was produced from Sept 2014 and November 2015 and was used as an input for the overall project systematization. The overall project systematization was produced towards the end of the project, which meant they were not used for feedback for the project. It is important to note they are important documents that help to understand most of the project's achievements and lessons learned for future initiatives, although they did not include the results from Tomas. In addition, established a continuous learning processes through is known as "Action Learning Cycles" which were processes that supported analysis during the implementation phases of the measures. One of these AL exercises was done with implementers (UNDP, IUCN and TMI) in Lima in Feb. 2014. The AL were important inputs for the systematization process. Additionally, IUCN produced many individual documents to disseminate the information of Canchayllo and Miraflores and/or as part of the other non-regret measures of IUCN global. Their reference to the overall project is scarce or inexistent⁶⁸.

164) In addition, during the implementation the project organized national, regional and local workshops to present the project's objective, progress, outcomes and lessons, with the participation of the main stakeholders, and also participated in a series of national and international conferences presenting technical documents related to the project.

The project's performance on communication and public awareness is rated "Moderately Satisfactory"

⁶⁸ For example, in Murti, R. & Buyck, C. (ed.). (2014). Safe Havens: Protected Areas for Disaster Risk Reduction and Climate Change Adaptation. Gland, Switzerland: IUCN. Another example: The document Zapata et al (2016) that refers to the systematization of the experience on Canchayllo and Miraflores, do not have a title referring to the whole project and does not provide a framework referring to the other pilot sites or an explanation of the whole project. Finally, the title of the main systematization document "Ancestral Future" (2016) does not mention the project or program, thus does not provide a first quick glance that it deals with its systematization.

3.6.5 Country ownership and driven -ness

- 165) The project concept was in line with development priorities and plans of Peru at the national, regional and local levels since it was aligned with the mandate of the SERNANP and of the environmental Ministry (MINAM). More specifically, it was aligned with the MINAM’s Climate Change Directorate and the Directorates of Natural Resources and Climate Change of the Regional Governments as they had the mandate to update the Climate Change Strategy, and with the MINAM – SERNANP and the reserve’s authorities belonging to the SERNANP, as they had to update the reserve’s Management Plan. To develop the CC Strategy the MINAM had to provide advisory services to the Regional governments and the Regional Governments had the mandate to develop the strategy in a participatory manner, involving other regional stakeholders (authorities, municipalities, private sector, civil society, communities). To update the Management Plan, the SERNANP had to involve the communities, private sector and NGOs working in the reserve.
- 166) As mentioned above (par. 147), the partnerships with the Regional Government (RG) required a special effort from the project, but at the end they acquired a strong ownership.

Country ownership and driven-ness is rated “Highly Satisfactory”

3.6.6 Financial Planning and Management

- 167) The project expended most of the funds received; nevertheless, there were some differences among the agencies. UNDP and IUCN expended all their funds. UNEP expended most of the funds except for US\$ 150,303. Table No. 4 shows the execution funds per agency.

Table No. 4 Funds execution

Institution	Expected financing	Received financing	Expenditure by March 2016	Difference in received and expended budget
UNEP	819,260.00	881,944.25	731.640,83	150,303.42
UNDP	1,731,733.00	1,731,733.00	1,731,733.00	0
IUCN	1,029,750.88	1,029,750.88	1,029,750.88	0
Total	3,580,743.88	3,643,428.13		150,303.42

Source: Implementing Agencies.

- 168) Overall the funds were used for each one of the activities and outcomes as planned. As mentioned above, in the item 2.6, UNEP remitted funding for its activities (under components 1 and 2) to UNDP. As mentioned by UNDP, they were able to provide administrative support to UNEP since UNEP does not have a local office in Peru.
- 169) As per a request of its headquarters, UNDP Peru was able to lend funds to the UNDP Nepal’s project for six months until Nepal received their disbursement. The reason why this was possible was that UNDP Peru had the money available for the field activities but decided not to start expending them until the information from the VIA (Vulnerability Impact Assessment) was available for them to work with.

170) Financial reports.- The expenditures of the Peru component were reported as follows: UNDP to the UNDP Peru office, UNEP to the UNEP Regional Office for Latin America and Caribbean in Panama, and IUCN to the South America Regional Office based in Quito and headquarters in Switzerland. It was reported that resources were used for the planned activities; for example, IUCN reported the budget was executed according to the original proposal, except for small adjustments. Global IUCN allows shifting budget lines if they represent less than the 10% of the budget, at any case, all changes need to be justified to its headquarters.

171) As reported, each one of the implementing agencies (UNEP, UNDP and IUCN) used their own financial systems:

- i) UNDP kept the detailed financial information of the activities they implemented applying the system Atlas.
- ii) UNDP, acting as the project coordinator in Peru, only received the general financial information from IUCN and UNEP to compile the data and produce the annual PIRs and BMUB reports to later send them to the UNEP in Nairobi.
- iii) IUCN South America Regional Office, whose office is based in Quito, had the administrative support of The Mountain Institute in Peru. The IUCN provided detailed financial reports to its headquarters in Switzerland.
- iv) UNEP, whose Regional Office is located in Panama, administered the budget directly from Panama, but in certain occasions they requested UNDP⁶⁹ to provide administrative support when they needed to contract services in Peru.
- v) UNEP Panama and IUCN reported monthly expenses directly to UNEP Nairobi for them to produce the annual report BMUB.

172) Audits- There were no external audits for the project. Control and follow up of project funds was done independently by each institution. It was reported that at IUCN, the project's audit was included in the internal overall audit processes done for the entire IUCN Regional Office, which included internal monitoring and procurement analysis of expenses and administrative processes. This monitoring control is coordinated with the IUCN headquarters in Switzerland. For the project, IUCN project coordinator provided continuous technical financial follow-up and coordinated financial follow-up with the administration department at the IUCN office. UNDP also had an audit for the whole UNDP portfolio in 2014. The project had to provide all its accounting files for the audit.

173) Co- financing- Co-financing was not considered in the project's design. However, the project received in-kind co-financing from the regional authorities and local communities. The Regional Government contributed with mobilization for the workshops providing vehicles⁷⁰, and the time of staff and members of the Technical Committee. The local communities contributed with their time and labour, which, as reported, was not easy to obtain at the beginning and required a sensitization process as some people requested to be paid to participate in compensation for the time they used from their own jobs.

Overall rating for project financial planning and management was "Satisfactory"

3.6.7 Supervision, guidance, and technical backstopping

174) Overall supervision, guidance and backstopping were coordinated by the three responsible agencies. They had a constant interaction for adapting the EbA concept to Peru context, planning activities and

⁶⁹ UNDP would make the calls to receive offers and after signing the contract UNEP would transfer the funds to UNDP to pay for them. Examples of this happened when they hired the technical advisor to represent UNEP, conducting the VIA Study and printing materials.

⁷⁰ Although the project provided the fuel

implementation, monitoring and reporting. Weekly Skype meetings were held from the beginning of the project (June 2012) by UNEP Panama, its technical advisor based in Peru and the project coordinator (representing UNDP). Afterwards IUCN joined those meetings⁷¹. Even when the Project Document only mentions the requirement to have annual meetings of the Steering Committee to review the PIR and the Annual Work Plan (AWP) of the following year, the coordinators had planned to have bi-annual meetings, but actually were held annually. In addition, UNEP and IUCN project coordinators travelled from Panama and Ecuador to hold joint meetings and to participate in workshops with UNDP coordinator, the SERNANP officials in the program, regional governments, community representatives, and some experts to define specific issues. The project coordinator also had annual meetings with working teams of the three countries (Uganda, Nepal and Peru) and the Technical Advisor reported to also have had to travel to Cambridge to receive the project's VIA.

- 175) In addition, the project had external technical advisory support for the VIA provided by the World Conservation Monitoring Centre (WCMC)⁷². Its advice was considered highly enlightening and even when it was not feasible to include its guidance in the implementation of the VIA, it enriched the discussions and concept definitions among the implementing agencies.
- 176) As project Coordinator, UNDP had to act as a facilitator among the institutions. It was reported that such coordination was not easy, but it took place thanks to the positive disposition of the four institutions that put great effort in implementing the project successfully. It was reported that interaction among UNDP and UNEP was smooth, and that the conditions that helped this interaction were probably that both institutions have similar processes and that the interaction between the project coordinator and the technical advisor was constructive.

Overall rating for UNEP/UNDP supervision and backstopping was “Highly Satisfactory”

3.6.8 Monitoring and evaluation

- 177) The project has a Logical Framework (LF) and a short description of each component, but lacks a descriptive text explaining what activities were expected under each component / result. Instead, a list of activities is included in the LF. In fact, one of the important shortfalls is the lack of clarity of the LF. It provides separate and compiled lists of information on the baseline, targets and indicators, but they are not connected with each other or with the specific expected result. Instead, for each result / component, only expected activities are listed. The activities for the different methodologies (VIA vs. the IUCN CBA) are mixed up, without clarity of the route to achieve the general objective or the long-term goal (impact). In addition, there are some activities that are isolated and the project did not comply with them (for instance an educational program). An additional shortfall of the LF is that most indicators are performance indicators rather than results indicators. Thus, a review and redefinition of results indicators would have been an important contribution to the project monitoring, and it would have been feasible applying an adaptive⁷³ management. In addition, during the project data was not collected due to lack of time.

The M&E design is rated as “Moderately Unsatisfactory”

- 178) Monitoring of the Peru component was done by the project coordinator based on completed products. Specific data collection for monitoring was done by each one of the institutions for the activities for which they were responsible as follows:
- i. UNEP monitored the VIA Study and other UNEP contracts through the technical advisor they hired for that purpose. The VIA required the collection of a large amount of data which was compiled in final technical /

⁷¹ Source: interviews to agencies.

⁷² UNEP Research Institute based in Cambridge

⁷³ Projects sometimes review their LF and modify their indicators to ensure they are SMART.

thematic reports. As reported, follow-up of the VIA process was not easy as the coordinator of the Study did not agree to provide partial data collected during the study. It is noteworthy that UNEP's technical advisor had a close relationship with the UNEP Office in Panama and also worked closely with UNDP to provide general advice and support, thus even when UNDP and UNEP had the responsibility of specific activities, the monitoring was closely coordinated.

- ii. Data collection of Tanta and Tomas was the responsibility of the project coordinator (UNDP).
- iii. IUCN monitored its activities through The Mountain Institute, which provided IUCN with detailed reports. However, some of these reports or partial information were not delivered to the project coordinator.
- iv. UNEP and IUCN coordinators also travelled to Peru at least annually or bi-annually for implementation for follow up and to participate in decision-making workshops.

179) The Project Document includes a Plan for Monitoring and Evaluation, which includes reports to be produced by the implementing agencies that include the production of quarterly reports, annual reports (PIRs), a midterm evaluation, a final evaluation and the usage of follow up tools such as risk analysis matrix and the quality assurance matrix. The project produced most of the required reports: The quarterly reports and PIRs. Nevertheless, the project did not produce a Mid Term Evaluation or a Final Report.

- i. Quarterly Reports (QR).- The project produced QRs with the participation of the organizations involved. UNDP requested the Agencies to fill out a form which later on was jointly discussed. In the case of IUCN it was reported that the form was completed by the IUCN in Quito with the participation of the TIM in Peru. The QR included a report of the advances of results considering the Logical Framework, but also included an analysis of the processes that were taking place.
- ii. Project Annual (PIR) and Final Implementation Reports.- The project reported having produced the PIRs annually as expected. The production of PIRs was challenging but effective. As reported, for the overall follow-up of the project and the required reporting. The technical advisor worked closely with the project coordinator to produce the annual PIRs. Following this, UNDP would send the draft to UNEP Panama and after a joint revision it would be sent to Nairobi. The parties considered that weekly meetings via Skype were highly useful.
- iii. Quality assurance matrix.- The Project Document included a quality assurance matrix that needed to be followed by the project coordination. As reported, it was not used by the project in Peru as it proved to be of little use because the type of information referred to in the matrix and the sources of information were not specific. It was used only for the first meeting when trying to establish the agenda for implementation but later on was not used any more. Looking at the matrix, the evaluators could confirm that the information requested in the matrix is not of much use.
- iv. Risk Analysis.- The Project Document included a Risk Analysis matrix but IUCN did not have a recollection of having had specific analysis of adjustments during implementation.

The M&E plan implementation is rated as "Moderately Satisfactory"

4. Conclusions and Recommendations

4.1 Conclusions

180) The high vulnerability to CC presented in Peru made the project to respond to necessities at national, regional and local level. In addition, the project established strong and successful strategic partnerships with relevant stakeholders, thus a strong country drive-ness was developed.

181) Overall, the project's management structures were assertively put in place considering the complexity involved in managing a project with three international agencies that do not have country offices. Nevertheless, the three representatives of the agencies for the project made a tremendous coordination effort to establish a highly efficient management with few problems that were solved in a proactive manner. One shortfall was that not all the information was delivered to the project coordinator, but to their

headquarters or directly to the general coordinator of the umbrella program. Despite that the interaction among the three agencies was smooth; there was a stronger bond among the two UN Agencies, probably because they have similar systems and approaches, and channels of communication.

- 182) The project delivered important outputs that can represent models of adaptation to Climate Change based on the ecosystems. It also achieved important outcomes as increase of knowledge on the subject and ways to approach the identification of adaptation measures based on the ecosystems. Nevertheless, there are also some shortfalls that need to be considered for future.
- 183) One shortfall was that the way of information dissemination; in many cases referring to partial outputs and outcomes, diminished the comprehension of the whole project, thus comparative knowledge it generated.
- 184) IUCN and UNDP used different methodologies for the selection of vulnerable sites and the definition of EbA measures. UNDP based its work on a Vulnerability Impact Assessment (VIA) whereas IUCN proposed an approach for higher community participation on this selection. According to different stakeholders, it was a good idea to have applied different mechanisms for the identification of sites, but even when the ***Integrated Participatory Rural Appraisal*** (DRPI) was much cheaper it is not possible to state that a more rigorous scientific methodology is not necessary.
- 185) The other shortfall was that communities learned how to face the specific climate change effects they are facing now; nevertheless, it is not clear if they gathered enough capacities to define new measures for other possible different effects of Climate Change that could appear in the future.
- 186) The VIA Study was a highly technical study that provided important information with the concurrence of international and national experts. This sort of effort would be difficult to gather outside of a project such as the EbA Mountain project. Therefore, it becomes a very important contribution to increase knowledge on the subject that could be of reference to similar places on South America. Nevertheless, it also had a shortfall which relates with the concept of the EbA on mountain ecosystem, namely that the approach focused on the use of biodiversity and the ecosystem services, whereas the importance of biodiversity conservation is diminished. Similarly, the communities whose livelihoods depend on the ecosystems learnt that sustainable management of their resources (meaning sustainable management of a productive system) was an essential approach for their adaptation and resilience to climate change. Nevertheless, there was a weak or lack of understanding of the other pillars of sustainability and adaptation, which are the conservation and sustainable use of biodiversity.
- 187) In conclusion, it was a worthily project to be designed and implemented and the executers made a great effort to comply with what they had committed to. Overall, it produced important local benefits to improve the livelihood of the pilot communities and global benefits for the generated increase of knowledge. It also shows there are still room for improvement at all levels, global, national and local.

4.2 Lessons Learned

- 188) As a result of the evaluation, the following lessons can be identified for future projects:
- 189) **Lesson 1. Strategic Alliances with main stakeholders and authorities, and to highlight the alignment of the project with their mandate is essential for the success of a project.** As reported, one of the factors of success of the present project was the establishment of partnerships, especially with regional authorities, which allowed the project to have important political influence. Moreover, the identification of their necessity / mandate to develop the Strategy of CC and the update of the MP of the reserve gave the project an opportunity to establish the partnerships. A project can be more relevant to governments when Strategic Alliances are established with different authorities at different levels. Besides, a project can be more relevant when it has the capacity to identify the links of its goals with the governmental necessities, when it has the capacity to respond to them and it has the opportunity to show the government the advantages of a partnership. As mentioned before, the present project supported authorities to comply with their mandates,

which was very welcomed. For example, the regional governments had the need to develop the climate change strategies and the SERNANP had the need to update the Management Plan of the Reserve. Similar situation happened at the local- community level, the project responded to the community's necessities to adapt to Climate Change.

- 190) **Lesson 2. Criteria for selection of communities to work with should be primarily based on the consideration of the final goal.** In the present project, the criteria for selection communities to work with originally included a factor of vulnerability to climate change as well as their urgency to solve the Climate Change effect. However, there was a selection criteria that specifically stood out for the pilot areas: the degree of internal organization, which in turn would account for easiness to work with. It is worth mention that the UNDP choose Tanta because it was one of the most vulnerable sites despite its internal conflicts. The Community Social Context could influence projects' effectiveness. However, this does not necessarily mean that the ability to work with a community should be primary criteria for selection⁷⁴, especially if a climate change project needs to work with the most vulnerable from the ecological point of view⁷⁵ and the number of people affected (vulnerability)⁷⁶. When selecting communities, the primary criteria for selection should be based on how to reach more effectively the outcomes and final objective. The project should also take into consideration the feasibility to obtain success considering the time and budget available, and in the case that it is not feasible to serve the most vulnerable communities, the reasons why they were not selected should be justified and /or how to work with easier communities could eventually help the most vulnerable, for instance, through exchanges experiences or creating other conditions and incentives.
- 191) **Lesson 3. To ensure efficiency it is necessary to consider the time that would be required to establish a trusty interaction with the communities selected to ensure the project's success.** Rural communities tend to not immediately welcome a new project; thus, it is not feasible to work with them unless a trusty relationship is established. In the case of this project, its design did not consider this required time and assumed the third component could start as soon as the second was finished. In the case of the project the project executers correctly realized ahead this problem and started establishing the connection with the communities before the vulnerability impact assessment (VIA) finished. Besides, the Reserve's authorities helped the project to link with the communities. Otherwise, the project would have had problems to comply with the expected activities on time. Because usually communities do not immediately respond to new projects and are not willing to work with them unless they establish a trusty relationship from the beginning, a project's proposal should consider ample timing for developing such trust, and /or consider options that could open faster the doors of the selected communities.
- 192) **Lesson 4. To ensure proper knowledge transference it is necessary to provide integrated information from a project.** The information delivered of partial outputs or outcomes of a project without providing the whole context and making reference to the work of only one organization generates confusion and does not help to promote knowledge transference. Different agencies, produced individual documents that highlight the results of specific methodologies they used, reducing the option to enrich the understanding with an overall comprehension. Some documents with partial information (some IUCN documents refers to the umbrella project and Peru Project mentioning all the parties involved, but only refers to the Non- regret measures and therefore does not provide an understanding that the whole project also comprised the UNDP EbA measures, thus any reader that is not familiar with all the components could end up with the idea that only Non-regret measures were implemented)⁷⁷. This strategy could have had the advantage to individual

⁷⁴ The ability to work with a community was not the only criteria, but it was a recurrent point coming from different actors and, even when working with any of the communities would have been important, the weight of their vulnerability was not clear for the evaluator.

⁷⁵ To understand the "Risk" that CC would present to an ecosystem is essential part of understanding the vulnerability. Risk is understood as the dangers of a feasible event to occur.

⁷⁶ Vulnerability is understood in terms of the number of people that could be affected by a risk.

⁷⁷ For example, in Murti, R. & Buyck, C. (ed.). (2014). Safe Havens: Protected Areas for Disaster Risk Reduction and Climate Change Adaptation. Gland, Switzerland: IUCN. (The document mentions: *The Ecosystem-based Adaptation (EbA) in the Mountain Ecosystems Programme is a collaborative initiative of the United Nations Environment Programme (UNEP), the*

agencies to promote their own agenda but was detrimental to the advancement of results towards the joint impact proposed and the overall EbA comprehension. The production of such documents, which refer only to partial products prepared by one agency, diminishes the understanding and richness of a joint effort. This problem persists even when having joint integrated documents and becomes even more problematic when partial documents are placed in different web pages. When agencies co-execute a project, they should establish an agreement on information delivery conducive to increase general knowledge of the products and outcomes and lessons of a project, the agreement should include the requirement to deliver information referring to the whole project. Rules for coordinating the communication products in a multiagency intervention organization of communication channels would have been useful to ensure a comprehensive delivering of information of the project.

- 193) **Lesson 5. To ensure appropriate transference of knowledge on methodologies produced by a project (such as the ones used for the vulnerability impact assessment) the contract with the specialists should include a clause for a close interaction with the beneficiaries.** Strengthening the capacities of staff from Government Agencies in regards the Vulnerability Impact Assessment (VIA) methodology could have been improved had they been more involved during the process of the VIA Study and if, at the end of the Study, there would have been a systematization of the methodology for future replication. Even when staff from Government Agencies were involved in workshops, such as identifying indicators for the VIA, staff expressed they would have been interested in being involved in the development of methodologies, especially those related to the VIA. A reason why the project could not establish a closer interaction was that the conditions of the contract to develop a study such as the VIA did not allow for such interaction. This lesson is important considering the follow up and knowledge transference the executers faced with the VIA Study. Because of the contract clauses, UNDP or UNEP could not have the MINAM staff getting involved with the study while it was taking place. In turn, the MINAM expressed they would have trouble replicating such study somewhere else.

International Union for Conservation of Nature (IUCN), and the United Nations Development Programme (UNDP), funded by Germany's Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB). In Peru, the programme is commissioned by the Ministry of Environment of Peru (MINAM) and is implemented in the Nor Yauyos-Cochas Landscape Reserve (NYCLR) with the support of the National Service of Natural Areas Protected by the State (SERNANP). The activities under IUCN's responsibility are implemented in partnership with The Mountain Institute (TMI). Nevertheless, it only refers to the Non-regret measures implemented by IUCN and TMI. Another example: The document Zapata et al (2016) that refers to the systematization of the experience on Canchayllo and Miraflores, do not have a title referring to the whole project and does not provide a framework referring to the other pilot sites or an explanation of the whole project. Finally, the title of the main systematization document "Ancestral Future" (2016) does not mention that it deals with systematization of the project.

4.4 Summary of Ratings

Criterion	Summary Assessment	Ref.	Rating
A. Strategic relevance	The project's goal, objective and components are highly aligned to Peru's development, environment and climate change needs and priorities. These issues include: (i) national development plans and climate change policies and actions that integrate EbA; (ii) increased uptake and scaling-up of EbA practices by governments and communities in mountain ecosystem to adapt to a changing climate; and, (iii) enhanced ability of the population and communities in mountain regions and countries to adapt to a changing climate	3.1.1 and 3.1.2	Highly Satisfactory
B. Achievement of outputs	The project worked directly with the national, regional and community stakeholders, trained key stakeholders on EbA, piloted and demonstrated EbA options at ecosystem level, and used participatory methods to communicate and disseminate EbA lessons learned. Almost all the outputs were satisfactorily achieved based on the log-frame indicators. The technical outputs for all components were of a high quality. In particular outputs on outcome 3 on implementation of EbA pilots at ecosystem level.	3.2	Satisfactory
C. Effectiveness: Attainment of objectives and planned results			
1. Achievement of direct outcomes as defined in the reconstructed TOC	The project complied with the majority of the indicators and in many cases Surpassed them; nevertheless, most indicators were performance indicators, thus the project did not use quantitative results indicators to demonstrate the achievements. However, direct outcomes of the project were largely achieved. The project was successful in strengthening the capacity of the national government, regional government and the selected communities within the NYCLR to apply EbA approaches. The VIA produced important information that helped partially to select the most vulnerable sites but was also used for the NYCLR Management Plan. The pilot options were identified and implemented. Awareness and capacity building for the implementation was built at relevant levels. The project deployed capacity building approaches that were based on learning by doing and demonstrations in the pilot sites. In addition, the project raised EbA awareness and knowledge among policy and decision makers and the wider public and was able to introduce the EbA concept at the policy level (national level within a financial mechanism, at regional levels within the CC Regional Strategies and the Reserves Management Plan, at local level within community management plans). One shortfall was that the EbA and non – regret measures fail was to provide a holistic understanding of the whole ecosystem (considering the species of different trophic levels and considering Biodiversity conservation as one important adaptation measure), instead, it mainly focus on pasture –grassland ecosystems and water management.	3.3.1	Moderately Satisfactory
2. Likelihood of impact using ROTl approach		3.3.2	Moderately likely

Criterion	Summary Assessment	Ref.	Rating
D. Sustainability and replication			
1. Socio-political sustainability	The project was implemented in a participatory manner and succeeded in getting political buy-in and ownership at national, regional and local level. It generated considerable social and political support at national, regional and local community levels. It has also influenced CC Strategies and plan revisions. The socio-political environment is conducive to sustaining the project outcomes.	3.4.1	Highly Likely
2. Financial resources	Maintenance of infrastructure (water tubbing, small dams reconstruction) built with the Project could continue due to the interest of the communities. Besides it is included in the community plans. Though lack of money may be a constrain in maintenance. The regional governments have included the subject in their projects portfolio and the national government has funding for some CC initiatives. Nevertheless, there are financial constrains for the replication of the activities, mainly infrastructure due to the costs involved.	3.4.2	Moderately Likely
3. Institutional framework	The project built strong partnerships at global, national, district and community institutions. Strengthening the capacity of the regional governments and the SERNANP will ensure the continuation of project outcomes i.e. VIA, CBA, incorporating EbA in policies and plans and implementing EbA options and livelihood improvement interventions.	3.4.3	Likely
4. Environmental sustainability	Identification and implementation of EbA options, including ecosystem restoration and soil and water conservation promotes environmental sustainability. However the limited approach to include Biodiversity Conservation as an important element of the ecosystems could undermine their resilience towards new CC conditions.	3.4.4	Moderately Likely
5. Catalytic role and replication	The project has produced a number of lessons and best practices as well as tools and documentaries that will facilitate replication. Examples of replication are already evident, but greater support and financial resources are required for scaling up. The early successes of the pilots showcase the project's concrete, on-the ground achievements, which will be instrumental in promoting further stakeholder buy-in and acceptance by households, communities and local governments of EbA practices. There are already additional projects to be implemented by the Agencies outside the NYCLR.	3.4.5	Moderately Satisfactory
E. Efficiency	The cost efficiency was good which resulted in achievement of project results within the planned budget and time frame, supported by the high level of ownership. Though the project experienced important delays due the delays of the VIA Study, the project overtook the problem by selecting sites with preliminary data and IUCN-TMI by the use of CBA methodology. The budget management was highly efficient by all parties and did not have any implementation delay due to delays on disbursements. Co-finance was not planned within the project, though executers were able to obtain important contributions from the regional authorities and communities for the implementation, making the project more efficient. This was achieved through establishing strategic partnerships	3.5	Satisfactory

Criterion	Summary Assessment	Ref.	Rating
	involving local communities in implementation and utilization of existing institutions, structures and information. However, achievement of project outputs was less timely given the delays in delivering EbA tools and methodologies and VIAs which delayed the logical and sequential implementation of the projects components and the shortfall of not having the time to evaluate the project results.		
F. Factors affecting project performance		3.6	
1. Preparation and readiness	The Project Document had accurately described the important stakeholders and processes for the project, such as the necessity to update the CC Regional Strategy and the Management Plan of the Reserve. The targets set by project at design were in general achievable in the planned budget and time frame, although there were some expected results that were unrealistic. However, the project implementation experienced an initial short delay putting in place a PMU, and delays on VIA completion.	3.6.1	Satisfactory
2. Project implementation and management	The coordination among the Agencies was excellent despite some initial difficulties. Coordination had challenges as the UNEP and IUCN coordinators had their residence in Panama and Ecuador, nevertheless, they had weekly Skype meetings and face to face meetings as needed. The project had a well-structured mechanism for implementation, which was highly effective and the project ran fairly smoothly. The project had multiple implementation partners, and engaged many partners and stakeholders at global, national and local levels. This helped build and strengthen partnerships and an institutional framework for EbA. It also directly helped institutions to overcome some capacity barriers (MEF) and create opportunities for mainstreaming EbA into districts, sectoral and national planning process.	3.6.2	Satisfactory
3. Stakeholders participation, cooperation and partnerships	A participatory approach was used, and wide range of stakeholders, from local communities to districts and national government were involved in selection of pilot sites and project implementation or were targeted for capacity building. Considerable effort went into participatory visioning and implementation of EbA practices on the ground.	3.6.3	Highly Satisfactory
4. Communication and public awareness	Significant effort went into raising public awareness and knowledge and mobilising stakeholders to implement project activities. A range of communication material was prepared including learning briefs, documentaries, brochures, technical documents of high quality, videos and training materials. Public awareness workshops were convened and demonstrations of EbA practices conducted. Information sharing platforms were put in place to disseminate project achievements and success stories, including newspaper articles. Clear communication between PMU, partners and strong participation of beneficiaries for design and implementation of EbA and non-regret measures played a key role in the project success.	3.6.4	Moderately Satisfactory
5. Country ownership	The project was aligned to the Agencies mandates, to the	3.6.5	Highly

Criterion	Summary Assessment	Ref.	Rating
and driven-ness	national priorities on CC (policies and legal framework), to the regional institutions (Regional Governments and NYCLR) mandates and to the communities needs for reducing vulnerability and increasing resilience. As a result, there was considerable enthusiasm and drive to move the project's results forward and country ownership and engagement was very strong. The partnerships forged high stakeholder participation and contributed to include EbA concepts on policies, legal frames, planning instruments and financial mechanism, which were considered useful.		Satisfactory
6. Financial planning and management	Financial planning and management was in accordance with UNEP's requirements. Financial reporting was done to the Agencies headquarters and overall amounts to UNDP for PIRs. Reporting was good. UNEP did not spend all the funds allocated.	3.6.6	Satisfactory
7. Supervision, guidance and technical backstopping	UNEP, UNDP and IUCN played a great role in coordination and supervision and backstopping with great team commitment. No major issues in project implementation and execution were encountered. Technical backstopping was provided by the UNDP Country Office and UNEP technical assistance.	3.6.7	Highly Satisfactory
8. Monitoring and evaluation	The overall rating on M&E is based on rating for M&E Design	3.6.8	Moderately Unsatisfactory
i. M&E design	The Peru Project Document had a log-frame with some limitations. Even when it has SMART indicators, the majority were performance indicators.	3.6.8	Moderately Unsatisfactory
ii. M&E plan implementation	There was an extraordinary effort for coordination among Agencies. There was a close monitoring of progress, reporting and documenting lessons learned. A MTR was not conducted nor a Final Report.	3.6.8	Moderately Satisfactory
Overall project rating			Satisfactory

ANNEXES

Annex 1

People Interviewed

Institution	Person's name	Description
UNDP	Edith Fernandez-Baca	National Project Coordinator for EbA Peru, UNDP
	James Leslie	Climate change and Ecosystem technical evaluator
	Woordro Andia Castelo	National technical support and guide to work with UNDP
	Babatunde Abidoye	Economist at UNPD NY, advisor for CBA
UNEP	Silvia Giada	Climate Change Programme Officer - UNEP Component coordinator of Peru Project, based on Panama
	Pablo Douroyanni	UNEP representative for EbA Peru and technical evaluator
SERNANP - LIMA	Cecilia Cabello	Protected Regions National Director
	Marco Arenas	In charge of follow up within Nor Yauyos Cochas Landscape Reserve
MINAM- LIMA	Eduardo Durand	Director for Climate Change, Desertification and Hydric Resources
	Laura Avellaneda	Coordinator of the CC
Regional Government of Junin	Walter Lopez	Ex Director of Natural resources and Climate
		Regional in the Government of Junin
IUCN	Karen Podvin	IUCN Program Officer (IUCN Component task manager) based on Quito, Ecuador
SERNANP	Diego	Park Ranger Huancaya
	Alan Quishpe	SERNANP – Tanta
Tanta Community	Focus Group	Participants and not participants of Tanta
Mayor of Tanta		Mayor of Tanta
Miraflores Community	Focus Group	Participants of Miraflores
Tomas Community	Focus Group	Participants of Tomas
Chancayllo Community	Focus Group	Participants of Chancayllo
NYCLR	Gonzalo Quiroz	Chief of Reserve in Tomas
The Mountain Institute)	Florencia Zapata	The Mountain Institute Deputy Director for Institutional Development
	Aneli Gomez	Coordinator of the Non-regret EbA component
	Elmer Segura	Facilitator of the no regrets measures

Annex 2

Mission Agenda

Mission to EbA Peru					
Date	Travel	City of Meeting	Hour interviews	Name of institution	Name of person
5 Julio	-	Quito	11:00	IUCN	Karen Podvin
1-Aug	Quito - Lima	-	-	-	-
	Overnight Lima				
2-Aug	-	Lima	8:30 Am - 12:00 Pm	UNDP	James Leslie
					Edith Fernandez - Project Coordinator
					Woodro Andia Castelo – Coordinator of Tanta and Tomas
			2:00 PM - 3:00 PM	UNEP	Pablo Dourojeanni
				SERNANP	Cecilia Cabello
					Marco Arenas
3:30 Pm - 5:00 Pm	MINAM	Eduardo Durand			
		Laura Avellaneda			
Overnight Lima					
3-Aug	Lima - Huancayo	Huancayo	6:00 Pm - 7:30 Pm	Junin Regional Government	Walter Lopez
Overnight Huancayo					
4-Aug	Huancayo -Canchayllo		7:00 Am - 8:30 Am		
		Canchayllo	10:00 Am - 1:00 Pm	Community of Canchayllo	interest group
	Canchayllo - Tanta	-	1:00 Pm - 5:30 Pm		
		Tanta	6:00:00 PM - 8:30 Pm	Community of Tanta	interest group and others
Overnight Tanta					
5-Aug	-	Tanta	8:30:00 Am - 8:45 Am	Municipality of Tanta / Mayor	Pablo Peña Cangalaya
	-	Tanta	8:45 Am - 9:00 Am	Visit to the pasture fences and lake	-
	Tanta - Huancaya - Miraflores	-	9:00 Am - 3:00 Pm	-	Lunch in Huancaya
	-	Miraflores	4:00 Pm - 7:00 Pm	Community of Miraflores	Focus Group with Authorites of the Community
6-Aug	Miraflores - Alis	-	7:00 Pm - 11:00 PM	-	-
6-Aug		Alis	Meeting With Elmer	The Mountain Institute	Elmer Segura
Overnight Alis					
	Alis - Tomas	-	5:30 Am - 5:55 Am	-	-
	-	Tomas	6:00 Am - 6:30 Am	Community of Tomas	Focus Group

	Tomas - Lima	-	6:30 Am - 1:00 Pm	-	-
Overnight Lima					
7-Aug	Lima	-	-	Desk Work	-
Overnight Lima					
8-Aug	-	Lima	10:00 Am - 12:00 Pm	The Mountain Institute	Florencia Zapata
	-				Aneli Gomez
9-Aug	Lima - Quito	-	-	-	-

Annex 3

Documents Reviewed

Project Documents

- **Introduction to Ecosystem-Based Adaption: A Nature Based Response to Climate Change** Introduccion Basada en la Adaptación de Ecosistemas: Una Respuesta al Cambio Climático Basada en la Naturaleza.
- United Nations Development Programme. 2015. Making the Case for Ecosystem-Based Adaptation: The Global Mountain EbA Programme in Nepal, Peru and Uganda. New York.
<http://www.undp.org/content/undp/en/home/librarypage/poverty-reduction/making-the-case-for-ecosystem-based-adaptation.html>
 - United Nations Development Programme. 2015. Making the Case for Ecosystem-Based Adaptation: The Global Mountain EbA Programme in Nepal, Peru and Uganda. New York.
<http://www.undp.org/content/undp/en/home/librarypage/poverty-reduction/making-the-case-for-ecosystem-based-adaptation.html>

Joint Publications:

- **Brochure: Mountain Ecosystem based Adaptation Project. 2014. Challenges and Opportunities for Adaptation to Climate Change at the Nor Yauyos Cochas Landscape Reserve, Peru. UNEP, UNDP, IUCN and TMI. Lima. Available at:** http://www.pnuma.org/eba/Brochure_EN_VF.pdf. Proyecto de Adaptación basada en Ecosistemas de Montaña. 2014. Retos y oportunidades de adaptación al Cambio Climático en la Reserva Paisajística Nor Yauyos Cochas, Perú. Folleto del Proyecto. PNUMA, PNUD, UICN e IM. Lima. Disponible en: http://www.pnuma.org/eba/Brochure_EbA%20Montana_Final.pdf
- **Brochure. Mountain EbA Flagship Programme. 2014. “Ecosystem-based Adaptation: Adapting to climate change in mountain ecosystems”.**
http://www.ebaflagship.org/images/ContentsForPublications/EbA_2014.pdf
- **Brochure: Proyecto de Adaptación Basada en Ecosistemas de Montaña: Parte del Programa Global Ecosystem Based Adaption (Eba).** *Mountain Ecosystem Based Adaption Project: Part of the Global Ecosystem Based Adaption (Eba Program)*
- **Brochure. Mountain EbA Flagship Programme. 2014. “Ecosystem-based Adaptation: Adapting to climate change in mountain ecosystems”.**
http://www.ebaflagship.org/images/ContentsForPublications/EbA_2014.pdf

Systematization Documents

- PNUD, PNUMA, UICN e IM (2016). **El futuro ancestral: la adaptación basada en ecosistemas. Lima.**
http://www.pe.undp.org/content/peru/es/home/library/environment_energy/el-futuro-ancestral-la-adaptacion-basada-en-ecosistemas/ (Systematization of the Project book, 146 pages)
- Zapata F, Gomez A. & Podvin K. (2016) INFORME DE SISTEMATIZACIÓN DE LA EXPERIENCIA: Implementación de las medidas robustas de Adaptación basada en Ecosistemas en las comunidades campesinas de Canchayllo y Miraflores (Reserva Paisajística Nor Yauyos Cochas). IUCN, TMI
- **Generating Multiple Benefits from Ecosystem-Based Adaption in Mountain Ecosystems**

- **Making the Economic Case for Ecosystem Based Adaption.** *Formulando los Fundamentos Económicos Para la Adaptación Basada en Ecosistemas.*
- **Making the Case for Policy Change and financing for Ecosystem-based Adaption**

Cost Benefit Analysis:

- **UNDP. How to Use Ecosystems: Cost benefit Analysis of the EBA Mountain Project in the NYCLR** *Como Aprovechar el Ecosistema: Análisis Costo Beneficio del Proyecto EBA Montaña en la RPNYC.*
- **UNDP.** Model for cost benefit analysis of projects EbA mountain - UNDP
- **UNDP.** Chart of Cost Benefit Analysis of the EBA Mountain Project –Tanta. *Ficha modelo para Entregable 3 de Análisis Costo Beneficio de proyectos EbA Montaña – Tanta. UNDP*
- **IUCN-TMI. Guide for a qualitative Cost Benefit Analysis: an alternative tool for the climate change adaptation analysis. (2015)** *Guía para un análisis costo beneficio cualitativo: una herramienta alternativa de análisis de medidas de adaptación al cambio climático. (2015)*
- **IUCN-TMI (2015) CBA Conventional and Participative in the Canchayllo community.** *ACB Convencional y Participativo en la comunidad de Canchayllo (2015)*
- **IUCN-TMI (2015) CBA Conventional and Participative in the Miraflores community.** *ACB Convencional y Participativo en la comunidad de Miraflores (2015)*

Effects on the Reserve Policy

- **La Reserva se Adapta al Cambio Climático: Reserva Paisajista Nor Yauyos Cochas, Regiones de Lima y Junín, Perú.** *The Reserve Adapts to Climate Change: Nor Yauyos Cochas Landscape Reserve, Lima and Junin Regions of Peru*
- **Brochure: Reserva Paisajista Nor Yauyos Cocha ‘Eba’Luacion de Vulnerabilidad al Cambio Climático.** *Nor Yauyos Cochas Landscape Reserve ‘Eba’Luacion of Vulnerability to Climate Change*

Regional Strategies:

- **Cambio Climático en Junín: Alternativas para Reducir y Contrarrestar sus efectos**
- **Estrategia Regional de Cambio Climático de Lima**

Communication Guide

- **Manual de Comunicación Sobre El Cambio Climático: Guía Práctica para comunicadores locales de las áreas naturales protegidas**

Vulnerability Impact Assessment (VIA) Documents –

- *Vulnerability and Impact Assesment of the Climate Change in the Nor Yauyos Cochas Landscape Reserve and its Buffer Zone. Technical Summary.* Estudio de Vulnerabilidad e Impacto del Cambio Climático Sobre La Reserva Paisajística Nor Yauyos Cochas (Via RPNYC) Informe Final
- Estudio de Vulnerabilidad e Impacto del Cambio Climático Sobre La Reserva Paisajística Nor Yauyos Cochas (Via RPNYC) Escenarios Climáticos y Futura Distribución de Especies
- Estudio de Vulnerabilidad e Impacto del Cambio Climático Sobre La Reserva Paisajística Nor Yauyos Cochas (Via RPNYC) Contexto ambiental, socio económico, cultural, y climático

- Estudio de Vulnerabilidad e Impacto del Cambio Climático Sobre La Reserva Paisajística Nor Yauyos Cochas (Via RPNYC) Miembros de Equipos Autores
- Anexo 1 - Fuentes de Información del Análisis Hídrico
- Anexo 2 - Diagnóstico socioeconómico basado en encuestas en la RPNYC y ZA
- Anexo 3 - Ilustraciones de las salidas de campo para el diagnóstico socioeconómico
- Anexo 4 - Indicadores e índices de vulnerabilidad frente al cambio climático (2011-2030) en la RPNYC

Know Prod Peru –

- *Descriptive/Tentative title: Synergy and Complementarity – Lessons from doing Vulnerability Impact Assessments and Participatory Community planning: case study in the Peruvian highlands*

Publications IUCN and TMI

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- Rizivi, A, Barrow, E., Zapata, F., Gómez, A., Podvin, K., Kutegeka, Kutegeka, S. Gafabusa, Adhikari, A. 2015. Learning from Participatory Vulnerability Assessments – key to identifying Ecosystem based Adaptation options. Technical Paper for UNFCCC COP 21. http://cmsdata.iucn.org/downloads/iucn_technical_paper___vulnerability_assessments_lessons_learned.pdf
- Hoja informativa sobre medidas no-regret http://cmsdata.iucn.org/downloads/factsheet_non_regret_26.pdf
- Hoja informativa sobre AbE: http://cmsdata.iucn.org/downloads/eba_factsheet_final.pdf; Inglés: (abril 2014): http://cmsdata.iucn.org/downloads/eba_english.pdf
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- IM, IUCN 2016.- Informe final de implementación de la medida robusta de adaptación basada en ecosistemas en la comunidad de Canchayllo (Reserva Paisajística Nor Yauyos Cochas). Lima: IM y IUCN
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- Plan de Manejo de Pastos y Agua de la comunidad de Miraflores
- Plan de Manejo de Pastos y Agua de la comunidad de Canchayllo

Annex 4

Timeline of Work done in the Nor-Yauyos Cochabamba Landscape Reserve

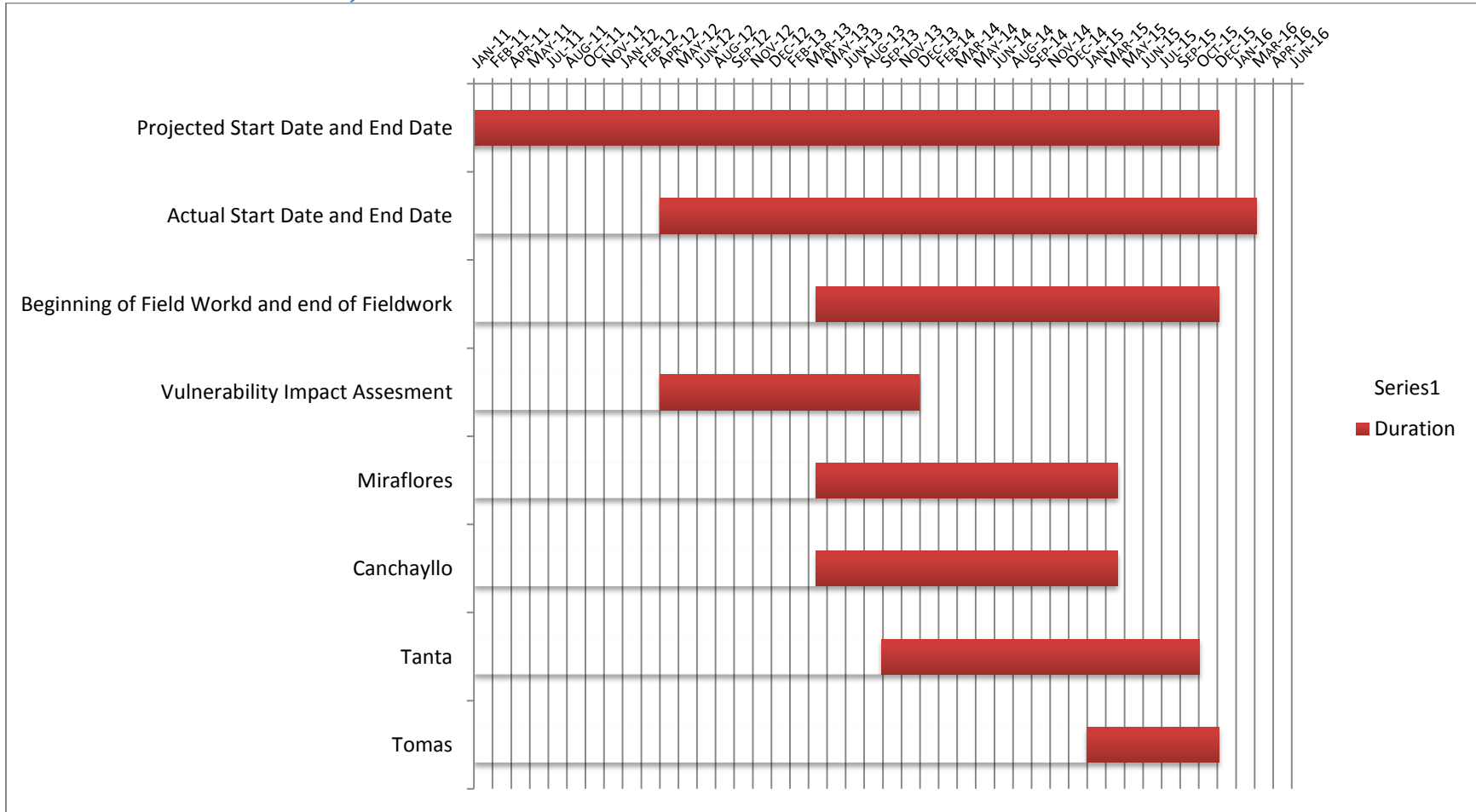
Event ID	Start Date	Duration (Days)	End Date
Projected Start Date and End Date	Jan 1. 2011	1795	Dec 1. 2015
Actual Start Date and End Date	Aug 1. 2013	973	Mar 31. 2016
Vulnerability Impact Assessment	Aug, 1, 2012	487	Dec 1. 2013
Miraflores ⁷⁸	Apr 2013	379	Dec 2016
Canchayllo	Apr. 2013	376	Dec 2016
Tomas	Jan 1. 2015	365	Dec 31. 2015
Tanta	Jan 1. 2014	638	Oct 1. 2015

⁷⁸ The no regret EbA measures implementation in Miraflores and Canchayllo started since April 2013 with three phases:

- I. An initial phase of consultation, appraisal and design (April – November 2013); this includes two differentiated moments
 - a. Site selection, approach to the communities and pre-selection of the measures (initial consultancy).
 - b. Appraisal, selection and design of measures.
- II. Implementation of the no-regret EbA measures, which started in Dec. 2013 until July 2015, although some specific activities continued until Oct. that year.

Systematization and transference phase, which overlaps with the prior one, and went from Sept. 2014 until December 2015, although it was more intensive during the last six months of the experience (Zapata et al 2016: 29)

ANNEX 5 Timeline of Peru Project



ANNEX 6 Indicators of socio-economical sensitivity

District/ Indicators and Index		Communities										
		Alis	Carania	Huancaya	Laraos	Miraflores	Tanta	Tomas	Vitis	Canchayllo	Chacapalpa	Suitucancha
Supply and Demand of Ecosystem Services	a. Carrying Capacity of Pastures	Low	Very Low	Very Low	High	Low	Low	High	Very Low	Medium	High	High
	b. Medicinal Plants	-4.50%	0.90%	3.80%	-2.90%	-0.60%	-0.60%	0.30%	1.70%	0.70%	-3.10%	-1.20%
	c. Animal Protein	-4.00%	1.10%	5.20%	-3.20%	0.90%	-1.70%	0.30%	2.30%	0.40%	-2.90%	-4.00%
	d. Vegetable Fuel	-4.50%	1.60%	3.50%	-2.80%	-0.70%	-0.70%	-0.20%	2.10%	0.60%	-3.10%	-1.20%
	e. Animal Fiber	-0.50%	0.90%	0.20%	0.00%	-0.10%	0.00%	-0.90%	0.80%	-1.40%	-5.40%	-1.00%
	f. Tourism (Effective Load Capacity with CC)	29	83	51	29	22	12	0	22	83	0	0
Agricultural Pressure on Surface		-3.10%	-6.4	-2.40%	-7.80%	-6.00%	0.00%	-13.00%	-3.20%	4.40%	7.90%	3.00%
Economic Dependence on Ecosystems (Agriculture and Livestock)		60%	79%	74%	64%	71%	56%	74%	61%	43%	75%	61%
Water exposure (projected P-E, historic AIB, mm)		-21.649	-19.9208	-21.3398	-21.5129	-23.1708	-25.9067	-22.8695	-22.7604	-21.1189	-19.7789	-21.358
Socioeconomic	% of PEA	88%	45%	53%	52%	40%	33%	50%	38%	23%	25%	41%
	% Poor Population	24%	38%	53%	30%	22%	31%	34%	49%	41%	13%	45%

	Rate of malnutrition (6-9 years)	28%	46%	29%	15%	19%	53%	34%	29%	35%	44%	37%
	Weighted (PEA, poverty and malnutrition)	3.8	1.8	2.2	3.2	2.8	1.4	2.4	1.8	1.2	1.4	1.6
	Health (doctors / 1000 inhabitants)	0	0	1	0	0	2	0.9	1.9	1.1	0	1.1
	Family Education	45.00%	28.00%	45.00%	49.00%	43.00%	46.00%	51.00%	51.00%	48.00%	43.00%	44.00%

Source: VIA Study